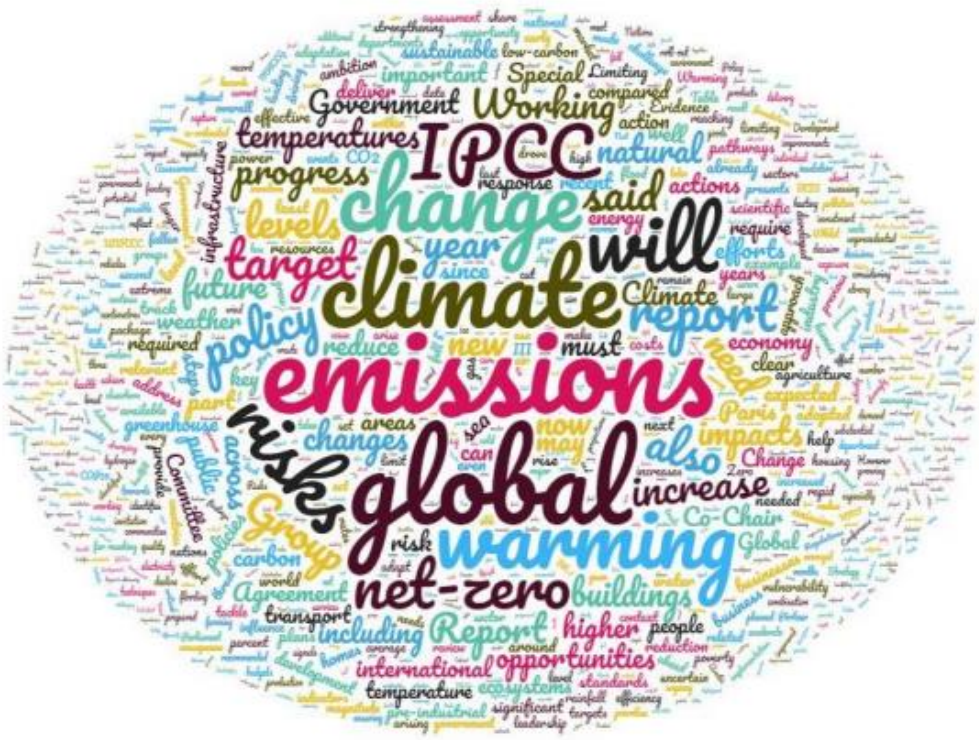
Forest of Dean District Council

Climate Emergency Strategy and Action Plan 2022-25



Consultation DRAFT

This is the consultation draft of the Forest of Dean District Council Climate Emergency Strategy Action Plan. All parts of the community are invited to look through the strategy and action plan and provide feedback on the draft. The consultation is open to anyone to respond and it is hoped that a broad spectrum of the community will be able to find time to do so.

The Council will review all the feedback it receives before developing a final plan. We do need to move at pace to meet the climate challenge facing us all, so the amount of time we give for this consultation is limited, however we would welcome feedback throughout the plans development but the sooner the better.

Contents

Foreword

To be added

Executive Summary

To be added

Glossary

Carbon sequestration – the capture and storage of atmospheric CO_2, for example through reforestation (tree planting), or artificial capture and underground storage of industrially produced CO_2.

Climate change adaptation – adapting the way that we live and the buildings we live in and use to the significant and unavoidable consequences of climate change we expect to experience, and in many places are already experiencing. This involves increasing our resilience and reducing our vulnerability to harmful effects such as increasing temperatures, increasing frequency and severity of extreme rainfall events, drought induced food insecurity and sea level rise.

Climate change mitigation – reducing the worst effects of climate change by reducing greenhouse gas emissions and increasing carbon sequestration.

Consumption-based emissions – emissions resulting from the supply of goods and services we buy and consume, including those imported from abroad.

Greenhouse gas – a gas that contributes to the greenhouse effect by trapping heat in the earth's atmosphere. Examples include carbon dioxide (CO_2) methane (CH_4) and nitrous oxide (N_2O). The terms 'carbon emissions' and 'CO_2 emissions' are often used interchangeably with 'greenhouse gas emissions'.

Scope 1 emissions (direct emissions) – activities owned or controlled by the organisation that release emissions straight into the atmosphere. These are direct emissions. Examples of Scope 1 emissions include emissions from combustion in owned or controlled boilers, furnaces and vehicles.

Scope 2 emissions (indirect emissions from energy consumption) – emissions being released into the atmosphere associated with the consumption of purchased electricity, heat, steam and cooling. These are indirect emissions that are a consequence of an organisation's activities, but which occur at sources they do not own or control.

Scope 3 emissions (other indirect emissions) – emissions that are a consequence of an organisation's actions, which occur at sources which they do not own or control and which are not classed as Scope 2 emissions. Examples of Scope 3 emissions are business travel by means not owned or controlled by your organisation, waste disposal, or purchased materials or fuels.

Territorial emissions – emissions arising from activity taking place within a defined territory. Often also referred to as 'production-based emissions'.

Introduction

Forest of Dean District Council Corporate Plan

The Council's Corporate Plan 2019 – 2023 sets out our high-level areas of focus for the district over the next four years. One of the key areas of focus is protecting and enhancing the local environment and addressing the climate emergency. We need to take bold steps to reduce CO_2 emissions from the current national average level of 4.5 tonnes per person per year to less than 2 tonnes. We will therefore ensure that the impact on climate change is considered in all our decision-making, aiming to make the Council (and the district) carbon neutral by 2030.

As part of the Corporate Plan, we committed to developing and implementing a climate change action plan to make the Council net carbon neutral by 2030, as well as to engage with the community to encourage and promote immediate and longer-term actions they can take to reduce their carbon footprint.

The purpose of the Climate Emergency Strategy and Action Plan

This Climate Emergency Strategy sets out the context, rationale and direction for action needed to tackle the climate emergency in the district. It formalises a high level of ambition, commensurate with the Council's declaration of a climate emergency in December 2018 and sets out the high-level principles that will underpin the development and execution of climate action by the Council.

The Strategy is not a rigid document and is intended to be reviewed and updated multiple times over the next 8 years as new climate science, technology innovation, and public understanding comes to the fore. Changes in local sentiment and behaviour, the international and national policy environment, and evidence of climate impacts will also lead to adaptations to this strategy.

The subsequent Action Plan identifies the key actions the Council plans to take between now and 2025, based on today's understanding, in its role as a key agent to achieving carbon

neutrality across the district. The Council has decided against producing an action plan for the full 8 years leading up to 2030 in order to reflect the fact that any plan needs to be a flexible and agile to the kinds of changed mentioned above. Therefore, any plan we produce now for the second half of the decade is likely to become quickly outdated. This Action Plan will include explorative actions that will lay the foundations for further action beyond 2025, at which point the Council will review its progress and produce an updated action plan for 2025 to 2030.

The Action Plan will also provide an update on the actions the Council has taken so far to meet its pledge, following on from and building upon the Council's Climate Emergency Rapid Action Plan (RAP) published in January 2020. The RAP was key in accelerating activity from the early evidence gathering and foundational stage into the first phase of priority activity. Some of the actions within the RAP will continue to be implemented over time, however now is an appropriate time to review what has been done and still needs to be done to achieve the carbon neutrality.

The Action Plan is not intended to be an exhaustive list of every action the Council will take in order to achieve carbon neutrality by 2030, neither is it meant to be an overly technical document and is written for reference by multiple stakeholders within the Council and across the wider district. Detailed technical and specialist projects will derive from this plan and be developed and implemented as standalone pieces of work.

It is hoped that consultation with the districts communities will enable the strategy to be developed further, taking into consideration the diverse range of perspectives and local knowledge found within the district.

Commitments

In Paris in 2015, the international community achieved a breakthrough by reaching the Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC) process. The Agreement stated the aim to "hold the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C". Global heating is already over 1°C.

The UK has consistently been a global leader in enshrining greenhouse gas (GHG) emissions reduction commitments in law, and the Climate Change Act 2008 now commits the country to reducing net emissions to zero by 2050 and by 50% by 2030. The UK has submitted its national emissions reduction commitment to the UNFCCC, alongside all other participating countries.

However, taken together, these individual national commitments do not come close to the level of emissions reduction required to achieve the limits set in the Paris Agreement (Figure 1). If emissions are reduced in line with stated commitments, it would lead to global heating

of around 1.9°C - 3°C by 2100. Heating above 2°C is widely agreed by scientists as likely to lead to significant and potentially catastrophic changes to the planet.

In December 2018 the Forest of Dean District Council declared a Climate Emergency, making a pledge to make the Council and the district carbon-neutral by 2030. Gloucestershire County Council and the county's five other local authorities have also declared a Climate Emergency and have set varying targets for carbon neutrality. With a dramatic decline in the abundance and diversity of plants and animals across the world including here in the UK, the Forest of Dean District Council has also vowed to take action to tackle the ecological emergency.

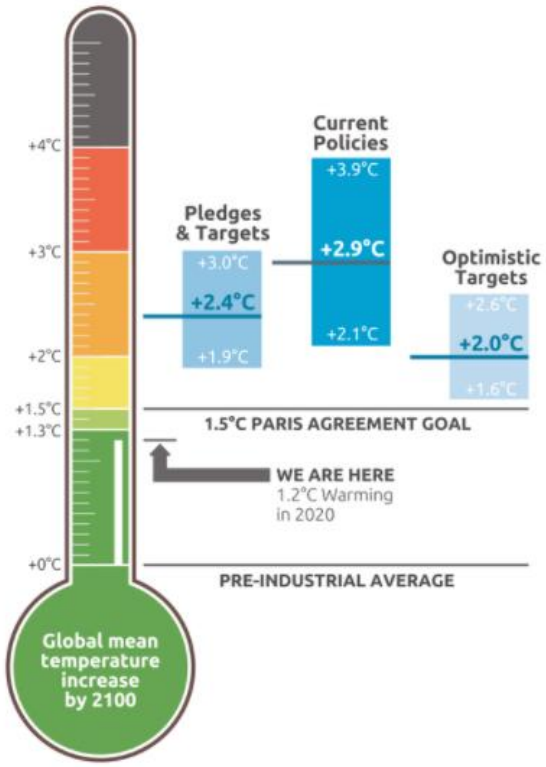


Figure 1: Paris Agreement likely overshoot (climateactiontracker.org)

The Climate Emergency

In 2018 the Intergovernmental Panel on Climate Change (IPCC) released the Special Report on 1.5°C. The report showed that risks rose significantly between 1.5°C and 2°C in terms of damage to ecosystems (species loss, extinction and ecosystems services vital to humans), and extreme weather events (heat extremes, heavy precipitation, droughts). The report also showed that risks to health, livelihoods, food security, water supply, human security, and

economic growth are projected to increase with global warming of 1.5°C and increase further with 2°C.

Globally, the six hottest years on record have all occurred in the last six years. The UK is already experiencing the impacts of climate change, for example more frequent and extreme weather events such as floods and heatwaves. Such impacts have been heavily felt in the Forest of Dean and the wider Gloucestershire area, which has suffered some of the worst flooding in the country in recent years. The floods in Lydney in February and December 2020 demonstrate the increased frequency and severity of heavy rainfall events and are cause for concern, as were the floods around Highnam and areas close to the Rivers Severn and Wye.

Evidence of consensus

The 2020 UK Climate Assembly was commissioned by six select committees of the House of Commons to examine the question: "How should the UK meet its target of net zero greenhouse gas emissions by 2050?". Using stratified random sampling, 108 members of the public were chosen to take park in the assembly, ensuring they were representative of the UK population in terms of: age, gender, ethnicity, educational level, where in the UK they live, whether they live in an urban or a rural area, and their level of concern about climate change. Assembly members were given access to expert opinion and data on climate change, presented by some of the most respected experts in their field. Through detailed discussion and cooperation, the assembly arrived at numerous recommendations for how the UK should best move forwards to reaching its net zero target, covering a range of topics such as how people travel, heat and use energy in their homes, what they eat and buy, energy generations and carbon storage. Recommendations included investing in public transport and active travel infrastructure, supporting the switch to electric vehicles, investment and support for retrofit, measures to encourage a circular economy and less meat consumption such as food emissions labelling, and support for wind and solar power generation and forest and peatland restoration.

Stand out recurring themes from the assembly were the need for greater, better and more accessible information for the public about climate change; ensuring a fair transition for everyone regardless of factors such as income, employment and locality; the freedom and choice for individuals and local areas to choose the most appropriate solutions for them; maximising co-benefits such as for health, the economy and the restoration of nature. Furthermore, members identified the importance of strong political leadership and the need for a joined-up approach across society that requires all communities and organisations to play their part. Additionally, a large majority of assembly members (79%) 'strongly agreed' or 'agreed' that, 'steps taken by the government to help the economy recover should be designed to help achieve net zero'.

Opportunities, Challenges and Risks

Opportunities

Local prosperity

There are wide ranging benefits available for us if we take the action needed: a safer and prosperous future, cleaner air, more comfortable buildings and homes, fresh local food supplies, improved natural environment and resilience to weather events. There are also considerable economic benefits as we move from exporting our wealth out of the district by paying for resources such as fuel, food and materials generated elsewhere, to a localised, circular economy with job creation and community wealth building potential.

Opportunities will include the creation of new investment, training and employment in businesses servicing new local carbon industries and approaches such as whole-house retrofit of energy efficiency and demand reduction measures to minimise householder energy costs, renewable energy generation, new agricultural systems that emphasise local supply chains, active travel and electric vehicle infrastructure, and all the associated economic benefits / cost savings that would come with improved health and wellbeing.

Natural environment

The district is well placed to champion rural decarbonisation. As a largely rural district, we have huge carbon sequestration potential with 21% of the district being public forest estate and potential for sustainable farming and land management practices to be implemented that help counter both the climate and ecological crises. We also have abundant clean renewable resources (solar, wind and tidal) to become 100% self-reliant on zero-carbon energy.

Covid-19

The global and national response to the Covid-19 pandemic has demonstrated the potential for rapid and coordinated action and investment on a grand scale, of the kind required to begin to address the climate emergency. It will be vital that this capacity is harnessed to bring about the necessary changes to our society to avert climate catastrophe. The Government's Ten Point Plan to aid a green recovery from the pandemic induced economic recession will mobilise £12 billion of government investment and is an opportunity to place climate change issues and the green economy at heart of the UK's future economy.

Challenges and Risks

Embedding climate change thinking

Thinking about the impacts of an action or policy on the climate needs to be in our everyday decision-making (business as usual). Moving from climate change as a stand-alone, ring-fenced issue, to a mainstream, integrated issue which is embedded across all thought, assumptions

and decisions as automatically as any long-established issue like cost effectiveness, welfare, or health and safety.

Natural environment

Some climate change is with us already as result of past emissions and we must learn to manage the impacts of that whilst ceasing further emissions which will make the problems worse. The district's short-term climate change risks include milder and wetter winters, hotter and drier summers, and more frequent extreme high temperatures and downpours of rain. Situated between the River Wye and the River Severn, the district is at risk from fluvial flooding and the negative impacts this has on water supplies, farms, homes, businesses and habitats. Although the district benefits from picturesque landscapes and conservation areas, protected landscapes can add complications to climate emergency issues such as how these sites can be used to meet the district's renewable energy needs, as well as constraints around the retrofitting of buildings in these areas. The district's agricultural economy contributes to the features of the landscape but climate change also poses a threat to this due to changes in seasonality, soil moisture content in summer, and loss of biodiversity including pollinators.

Economic cost

Rising to the challenge of the climate crisis will cost money, however not taking action will cost much more and have a greater impact on the future for our children, livelihoods and environment. We need to truly value the impact and benefit that a plan or project will have in reducing the causes of climate change and dealing with the impacts of past emissions. Despite it being unavoidable that economic costs will need to be incurred, many climate projects also have the potential to deliver economic benefits such as savings on energy bills. It is therefore vital that these benefits are highlighting whenever possible in order to overcome the falsehood that being low carbon or net zero approaches always costs more.

Connectivity

As a rural district, we experience connectivity issues in both our digital and transport infrastructures and many residents are required to travel long distances for work. We have a very high dependency on cars and a topography requiring innovation for active travel.

'Planning for the Future' white paper

If changes are made to the planning system in line with the intentions set out in the Ministry of Housing, Communities and Local Government white paper, 'Planning for the Future' (August 2020), it will likely restrict the Council's ability to set local policy on carbon and energy efficiency in new developments. The white paper also pushes the requirement of zero carbon development to 2050 well beyond that considered necessary in the district.

Covid-19

The virus has affected many aspects of how we live, shop, travel and work, with some of these changes likely to be permanent. This may in turn alter the assumptions underpinning the

investment case for some low carbon projects. The pandemic has reawakened the importance given to a healthy environment and providing healthy places for community life.

Unmatched ambition

Whilst the Council can try to do its utmost to reduce GHG emissions within the district, achieving its net zero goal by 2030 will require both policy and economic support from other levels of government. There is therefore a risk that if the Forest of Dean District Council's ambition is not matched by national government, or at county level, the aims of the 2018 Climate Emergency declaration will not be fulfilled.

Organising Principles

In determining and executing our strategy and prioritising the types of action we can take, we will seek to be guided by the following high level organising principles:

Be bold and ambitious; accept and manage risks

The scale of the global climate crisis, and its forthcoming effects on the Forest of Dean district, is our biggest challenge. This was spelled out in the Council's declaration of a Climate Emergency. Responding to the climate emergency requires the Council to take, and learn to manage, a level of economic and political risk in taking actions, and helping others to take actions, which are commensurate with the scale of the emergency.

Provide leadership

The Council's climate emergency declaration commits the Council to providing leadership within the district, and by extension more widely, to help all stakeholders to understand the scale of the emergency more quickly than they might otherwise have done, and to embolden and encourage those already choosing to take action.

Follow the evidence

A district council cannot also be a climate science expert. However, we will access highly reputable interpretations of the rapidly evolving science on climate breakdown, and what it means for the Forest of Dean District, provided by bodies like the Committee on Climate Change and the Met Office. We will also track and take account of the evidence of fast, deep and wide-scale change in both public attitudes and corporate decision making in favour of a net zero carbon future, to be achieved sooner than the present national goal of 2050.

Focus on the biggest wins

We will seek actions that deliver the largest greenhouse gas reduction impact, and which focus on the largest sources of emissions in the district as well as from the Council's own assets and operations. We will resist the temptation to focus on actions with high public

relations value but small emissions value, even though actions delivering large reductions are hard and require us to work creatively with many other stakeholders.

Connect mitigation and adaptation

Whilst climate change mitigation and adaptation are separate tasks, wherever possible we will seek actions that link the two, ideally having a useful impact on both objectives simultaneously.

Maximise co-benefits

In taking climate action ourselves, and supporting others to take action, we will identify and seek to maximise the co-benefits of those actions, and wherever possible align these with the Council's other priorities and statutory responsibilities. Whilst the primary focus of climate actions will be on adaptation and emissions reduction, there will be co-benefits not measured in tonnes of carbon, which may include, among others, economic regeneration, improved air quality, better public health, increased enjoyment of and access to nature, new employment and skills, investment opportunities, reduced fuel poverty and greater community spirit.

Deliver fairness

As well as the long-term benefit of helping to assure a healthy climate for Forest of Dean District residents, and the potentially multiple associated co-benefits of climate actions, there will also inevitably be additional cost, disruption, changes to the status quo and changes to behaviours and expectations. These changes will touch everyone in the country, from individual citizens to every sort of organisation. Public attitude research consistently shows that most people hold fairness as a high principle when enacting necessary change. At local level this will mean thinking carefully about where the burden of costs and changes falls, seeking to protect the most vulnerable and least well-off, and providing leadership to show the justification for necessary changes.

Work in partnership

As stated elsewhere, Forest of Dean District Council has neither the powers nor the pocket to deliver emissions reduction across the district at the scale necessary. However we will be able to work in partnership with stakeholders across the district to share information, develop new ideas, align our climate objectives and communications, co-invest, and seek new collaborative opportunities for emissions reduction projects. The Council will also do everything within its power to encourage the developers of any large scale or infrastructure projects, which have significant climate impact, to take a courageous lead in voluntarily aiming at the best possible emissions target, consistent with the scale of the climate emergency that faces us all.

Encourage and support citizen leadership

The Council's Climate Emergency Rapid Action Plan (RAP) published in January 2020 stated the action of creating a climate emergency community partnership to better link together communities taking action on the climate emergency, as well help guide the Council's actions.

The Council will continue to support the development of the partnership as it becomes established as a key hub for widespread activity.

Replicate and share good ideas

To be efficient with limited resources we will avoid re-inventing the wheel. There is a burgeoning range of ideas, support and opportunities for collaboration, all of which can reduce risk for the Council and other stakeholders, speed up actions, and maximise effectiveness. To tackle the climate crisis it is no longer necessary to carry innovation risks alone.

Leverage external resources

Commensurate with taking controlled risks and collaborating with others, we will seek to leverage external finance, expertise, ideas, support and projects, to magnify the impact of what we would otherwise achieve with our own much more limited resources.

Leverage internal strengths

Whilst Forest of Dean District Council has practical constraints of tangible resources such as finance, land, buildings and human resources, it has important intangible assets which can be leveraged to support others taking action. The Council is a stable long-term body, and therefore able to enter long term contracts that help to de-risk, and therefore reduce the costs of, projects such as renewable generation. The Council has long-term relationships with many stakeholders, a close understanding of the settlements in the district, and is a trusted authority. This can be leveraged to help accelerate the uptake of new initiatives such as green electricity switching, rooftop PV investment, electric vehicle uptake and home energy retrofit, even when the Council itself is not the implementing body.

Greenhouse Gas Emissions from Forest of Dean District

Territorial emissions

The most recent Department for Business, Energy & Industrial Strategy (BEIS) data for the Forest of Dean District, published in June 2020, shows net GHG emissions in 2018 of approximately 463.7 $ktCO_2e$, equating to around 5.5 tCO_2e per resident, and 0.88 $ktCO_2e$/km2 of land area. This relates to emissions arising directly from activity within the district's territory. This is a 30% reduction in emissions since 2005 (Figure 2), an encouraging reduction, however for reference, based on the UK Government's target of becoming carbon neutral by 2050 this will require each resident to have a carbon footprint of less than 2 tonnes of CO_2e emissions per year.

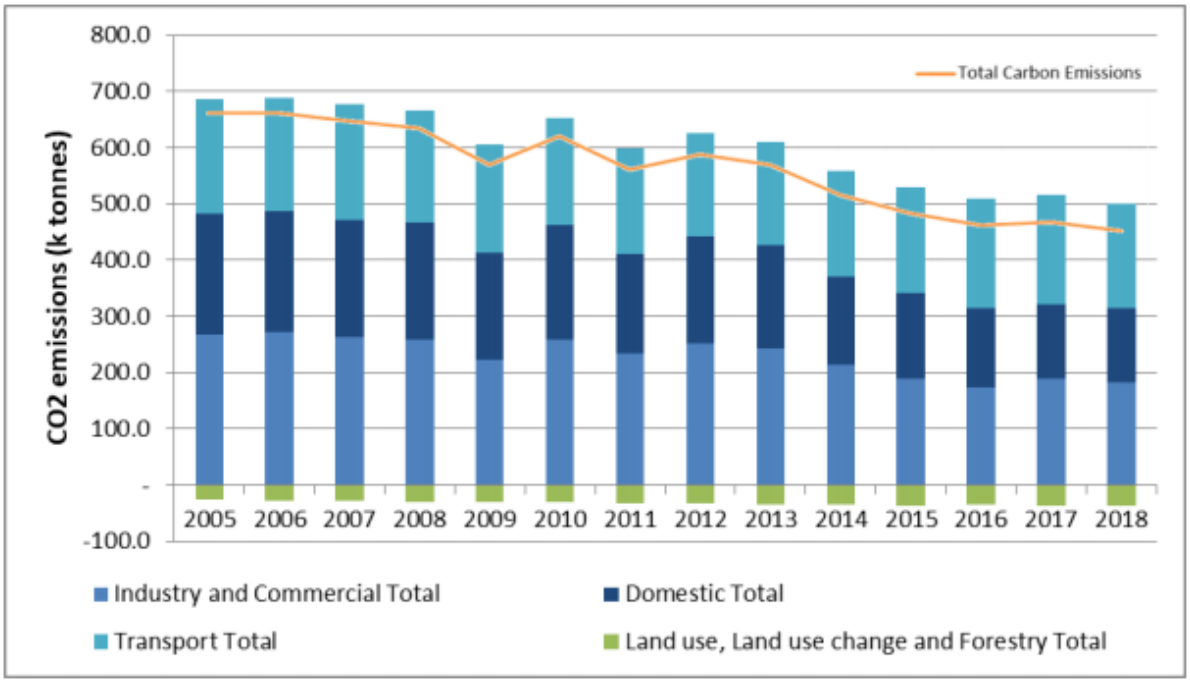


Figure 2: Forest of Dean District's territorial GHG emissions 2005-2018

The majority of the district's territorial emissions come from the transport sector (35%), predominantly from road transport (Figure 3). The industry and commercial sector makes up the next largest proportion of emissions (34%), followed by domestic energy (24%). GHG emissions coming from resident's home energy use has made encouraging savings since 2005, with a 39% reduction seen. Climate experts from the Tyndall Centre advised that an annual reduction of more than 13% is needed in domestic energy related GHG emissions in the district from 2020 onwards to avoid the most catastrophic impacts of climate change.

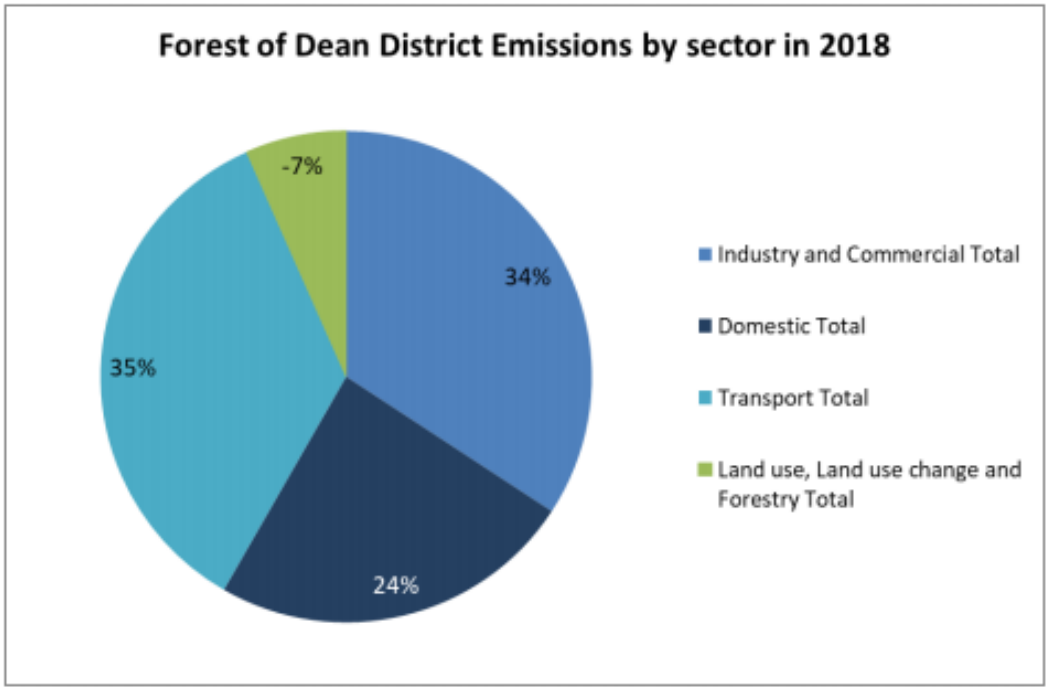


Figure 3: Forest of Dean District's territorial GHG emissions per sector in 2018

Due to its landscape, the Forest of Dean also acts as a carbon sink, absorbing and storing carbon, therefore offsetting some of the district's emissions. In 2018, the district had a net sink of -37.2 ktCO_2, which is around 7% of total district emissions. Figure 4 shows how the district's net sink of Land Use, Land Use Change and Forestry (LULUCF) emissions is distributed across the six classes identified by the IPCC Guidelines for National Greenhouse for National Greenhouse Gas Inventories (IPCC 2006): forest, cropland, wetlands, settlements, grasslands and harvested wood products, from 2005 to 2018.

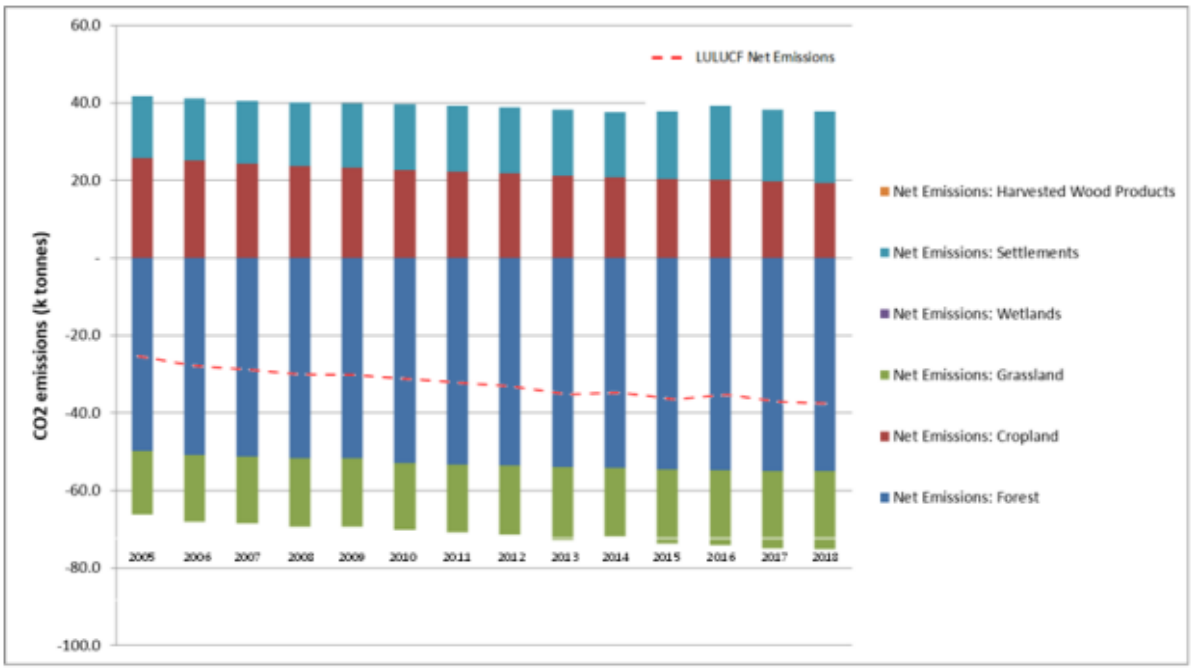


Figure 4: Forest of Dean District's LULUCF emissions 2005-2018

Increasingly, rural and farming parts of the country will need to find more ways to reduce GHG emissions from land, and increase the amount of carbon sequestered into standing biomass and soils. The Government's estimate of land-based carbon balance for the Forest of Dean District shows that carbon is emitted from cropland and settlements, but this is more than offset by the amount sequestered into forest, grassland and well managed soils.

Consumption-based emissions

The Government statistics for GHG emissions from Forest of Dean district reported above relate only to territorial emissions (also known as production-based emissions) that arise directly from activity in the district (such as burning fossil fuels in buildings and vehicles), and emissions from electricity consumed in the district, but mainly generated elsewhere. However, for a fuller understanding of how we as residents, businesses and the public sector affect the climate crisis, we must look also at our 'consumption-based emissions' – that is, emissions related to the supply of goods and services we buy, including those imported from abroad. Accurate data for consumption-based emissions is not readily available for Forest of Dean district; however we can draw some high level conclusions from UK-wide data. The first point to note is that, whilst UK emissions from territorial activity have fallen by over 40% in the period from 1990 to 2018, consumption-based emissions from the goods and services we buy and consume have fallen much less – by just 16% to the year 2017 (Figure 5). This discrepancy is because, whilst the UK has markedly reduced emissions from the power sector,

we have also reduced the amount of UK based manufacturing, with a much greater proportion of the goods we consume now made overseas, often in parts of the world with high emissions from the manufacturing and power sectors.

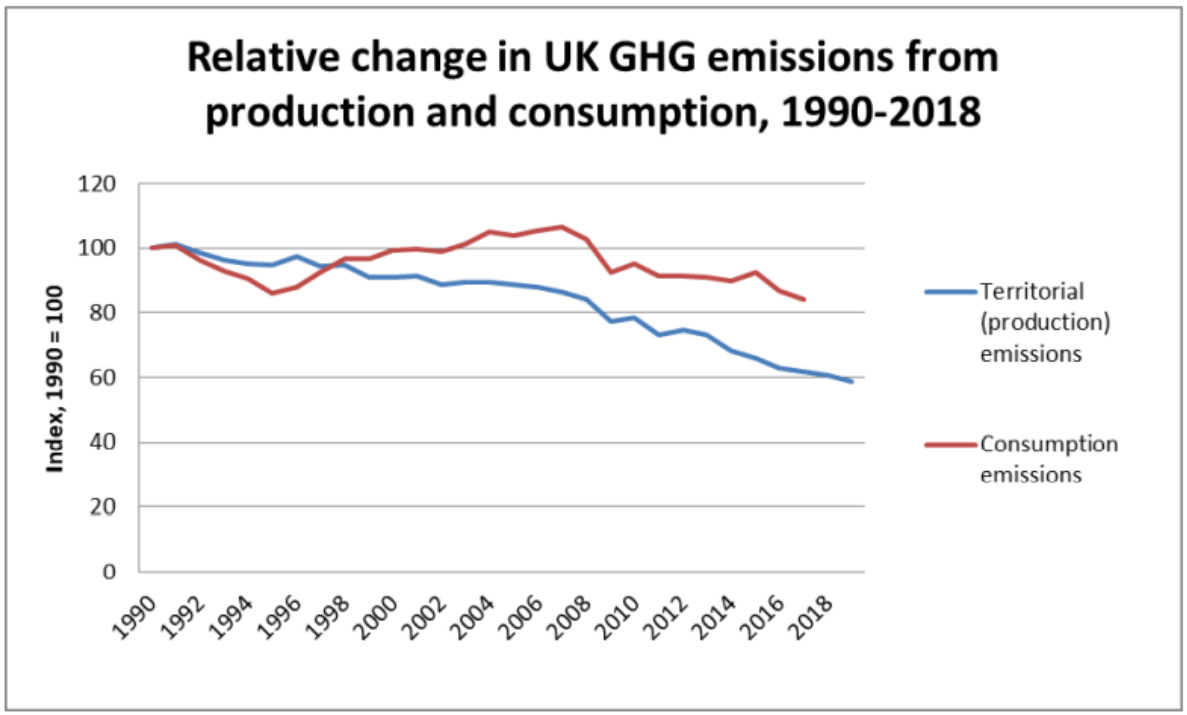


Figure 5: Changes in territorial (production) and consumption emissions 2005-2018

Greenhouse Gas Emissions from Forest of Dean District Council

The total greenhouse gas emissions produced by Forest of Dean District Council in the period from the 1st April 2019 to the 31st March 2020 were 1,292.89 tCO_2e. GHG emissions producing activities can be categorised into three groups known as scopes 1, 2 and 3.

For 2019/20, 52% of emissions came from scope 1, 6% from scope 2 and 42% from scope 3. Broken down further, the largest proportion of 2019/20 emissions came from council owned vehicles (scope 1) at 47% of total emissions (Figure 6). This is followed by emissions from gas consumption by the Council's partner-run leisure centre services (scope 3) at 27%.

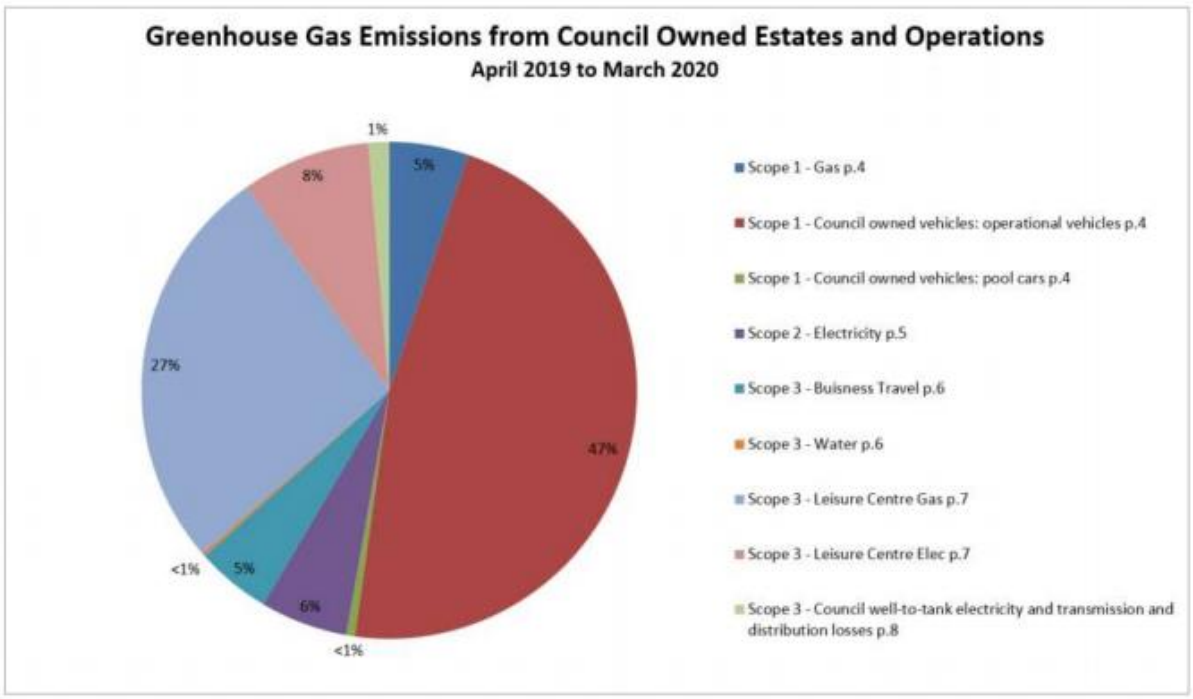


Figure 6: Sources of GHG emissions from the Council's assets and operations in 2019/20

Within the context of the last decade, the Council's total GHG emissions have fallen by 18% since 2010/11. The largest decrease since 2010/11 has come from Scope 2 emissions (direct electricity consumption) at 78%. Scope 3 emissions (including business travel and leisure centre energy consumption) have decreased by 50% since 2010/11. Scope 1 emissions (including emissions from council gas consumption and council owned vehicles) have increased since 2010/11 by 225% however this large increase is due to waste collection vehicles having been taken into Council ownership and their emissions consequently reported under scope 1.

One result of the Covid-19 crisis has been much more home working and much less commuting. Publica's agile working strategy means that staff commuting emissions will continue to be lower than before, but whilst common sense suggests home working saves carbon, there are many factors and assumptions at play. Estimates by the International Energy Agency using European averages suggest that workers who avoid a commute by car for four miles or more may save carbon, whereas those who drive less far, or who take public transport or active travel may emit more carbon by working from home. True figures will be difficult to monitor and calculate.

Action Plan for 2022-25

The actions within this action plan have been grouped into the following themes; built environment, renewable energy, transport, economy, waste, natural environment, and community. Each corresponding section of the plan outlines a 2030 vision for each theme, which will be collaboratively developed further during the consultation process prior to the publication of the final version of this action plan. Each section also includes a description of the action the Council has already taken since the publication of the Council's Climate Emergency Rapid Action Plan (RAP) in January 2020, followed by an outline of the actions we plan to take during 2022-2025.

The Council's Scope to Act

Whilst the Council has statutory responsibility for waste collection, local planning policy and other matters, it has neither the powers nor resources to directly drive down district-level emissions which are also the responsibility of individuals and organisations. However the Council has an important leadership role, networks and relationships which can be used to assist and influence key stakeholders. The various 'levers of influence' available to the Council are outlined in Figure 7. There are activities over which the Council has direct control (such as decisions relating to assets and property owned and operated by the Council), but which contribute only a small amount to the whole district's emissions reduction. In contrast, there are also activities that the Council has limited influence and no control over, but which if implemented would have a very large effect on the whole district's emissions.

The majority of the actions in this action plan will require financial resource and their implementation will be dependent on the availability of necessary funding. As well as internal finance, many of the actions are likely to also necessitate external sources of finance, such as central government grant schemes. This action plan is therefore best interpreted as a package of actions that the Council believes it needs to take between 2022-25 in order to accelerate progress towards achieving the goal of net zero by 2030 for both the Council and the district, but that will only be achievable if matched with the availability of internal and external economic resource.

Figure 7: Levers of influence available to the Council

Incorporating the above framework, the actions outlined in this action plan are categorised as either 'direct control' (the Council's own assets and operations), 'indirect control' (procurement and commissioning, placemaking) or 'influence and partnerships' (showcasing, convening, engaging).

Built Environment

2030 vision

Largescale retrofit of the district's buildings is achieving low carbon operation. Lifecycle considerations give value to our heritage buildings and legislation and technology are opening up their potential. Newer builds are carbon positive exporting power to the grid or local area. Families and businesses are benefitting from efficient, healthy buildings that are cost effective to operate.

Forest of Dean's progress so far

Energy efficiency and demand reduction measures at Council property

The Council has received funding to implement energy efficiency and demand reduction measures at the council office building in Coleford. This includes replacing existing lighting in the building with LEDs, installing some automatic lighting controls, fitting seven-day timers on printers, and installing insulation on naked heating valves and pipes. The latter has already been completed and a contractor for the design and installation of the new lighting has been instructed with the aim of completing the work by September 2021. These measures combined are estimated to save 64,837 kWh of energy per year, equivalent to 16,416 $kgCO_2e$ per year.

The Council is also in the process of producing a heat decarbonisation plan for the Council offices that will identify measures for reducing the building's heat demand and potential for installing renewable heat on site. Additionally, it has also begun investigating energy efficiency and demand reduction measures at the council owned swimming pool building at Lydney Leisure Centre leisure centre services.

Retrofit

With funding from the Government such as the Green Homes Grant Local Authority Delivery Scheme, the Council has been helping to improve the energy efficiency and phase out fossil fuel heating systems of low-income homes, at the same time reducing fuel poverty. The Forest of Dean's coalmining heritage means that a high proportion of households are still reliant on coal fires as their primary source of heat. The district has the most severe fuel poverty in the county, well above the national average, and many properties are of a non-standard construction making them difficult to retrofit. The work has been delivered via Severn Wye Energy Agency's Warm and Well programme, with a particular focus on improving park home properties in the district. In 2020/21, Warm and Well delivered significant numbers of first time central heating systems to off gas grid properties in the Forest of Dean, achieving total life time emissions savings of 3,732 tCO_2e, the biggest carbon reduction in the region.

In partnership with the other Publica councils, the Council has produced a net-zero toolkit to act as guidance in support of new and emerging planning policies. It will also assist applicants

being encouraged to achieve net-zero carbon developments under the Local Plan. The toolkit will communicate good-practice design for new-build and retrofit homes, with respect to the local character of the area, particularly in sensitive, historic and landscape settings.

Actions for 2022-25

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
Direct Control	A1: Energy Efficiency Measures at Council Offices	Investigate and implement measures to improve the thermal performance of the Council's offices in order to reduce the building's heat energy demand.	Reducing gas consumption at our offices is a key step we must undertake before replacing the current fossil-fuel powered system with a low carbon one, as energy demand with determine the size of the new system required.			✓	
	A2: Energy Efficiency Measures at Leisure Centres	Investigate and implement energy efficiency and demand reduction measures at the council-owned swimming pool building at Lydney Leisure Centre, and work together with partners to explore options to do the same at school-owned leisure centre buildings.	Our leisure centre services are responsible for 35% of the Council's total GHG emissions and reducing energy demand is a key step we must undertake in order to determine what size replacement low carbon energy generation systems are required.		✓	✓	

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
Direct Control	A3: Staff Energy Awareness Training	Deliver energy awareness training for staff in order to improve knowledge and understanding of how to reduce energy wastage in the workplace through the promotion of good practice.	Energy conservation through behaviour change is a fast and low cost means to reducing a buildings energy demand.			✓	
Direct Control	A4: Adaptation Review of Council Buildings	Carry out a review of Council buildings and produce a plan identifying specific actions for adapting them to current and future risks of climate change.	The effects of climate change impacts such as greater higher risk of damp, subsidence, flooding, and building cooling demand pose a health and economic risk to the Council.			✓	✓
Indirect Control	A5: Procurement of Energy Efficient Equipment	Ensure the Council's procurement specifies energy efficient equipment and devices.	When purchasing new equipment and devices, we are locking ourselves in to a set rate of energy consumption for the duration of the product's lifetime.			✓	

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
Indirect Control	A6: Encourage Retrofit in Planning Policy	Actively encourage the retrofit of homes and other buildings in the district by creating appropriate planning policy.	Planning policy helps determine the ease and extent to which building owners retrofit their buildings.		✓		✓
	A7: Energy Efficiency Measures in New Developments	Establish planning policy and conditions that require new developments to be equivalent to passivhaus standard, exceeding standard building regulations.	The construction of new buildings that only meet current building regulations is likely to lead to them requiring retrofit work in the future, likely to the cost of the home or building owner.		✓		
	A8: Social Housing Retrofit Planning Pathway	Work with social housing providers to develop a planning pathway for social housing retrofit in the district, including those in conservation areas. Produce case studies and demonstrate opportunities for retrofit of equivalent privately owned homes.	Creating a clear pathway can provide certainty and confidence amongst social housing providers in order to accelerate retrofit in this sector across the district.		✓		✓

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
Indirect Control	A9: Enforce Minimum Energy Standards (MEES) in Private Rented Property	Apply for enforcement and compliance funding through the Private Rental Sector MEES Compliance and Enforcement Competition to ensure private rented properties in the district meet the minimum energy efficiency standard (EPC E) before they are let.	The Energy Efficiency Regulations 2015 introduced a minimum energy efficiency standard of EPC E for the private rented sector in England and Wales in order to reduce fuel bills and emissions, and it is the responsibility of local authorities to enforce this.		✓		✓
	A10: Climate Risks Identified in New Developments	Develop local plan policies to ensure climate risks are identified and avoided in new developments, including flood risk and overheating. Produce guidance for developers and builders for including adaptation measures in new buildings.	The impacts of climate change are already being felt in the district and any new developments must be sufficiently resilient to cope with a changing climate.	✓	✓		✓

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
	A11: In-house Energy Efficiency Staff Resource, Skills and Knowledge	Ensure that the Council's planning department is suitably resourced and skilled to assess energy efficiency and renewable energy measures in planning, and design and implement an effective assessment methodology.	If planning conditions are to require energy efficiency measure exceeding current building regulations, officers need to be sufficiently resourced and trained to carry out assessments.		✓		
Influence and Partnership	A12: Promote Community Retrofit	Work with and support a range of partners via the community partnership to promote the retrofit of homes and buildings to residents, businesses and other organisations.	Achieving carbon neutral across the district will depend on all residents and business owners committing to the transition.		✓		
	A13: Fuel-poor Retrofit Service	Work with partners such as Severn Wye Energy Agency to maintain provision of advice and technical services support for fuel poor and vulnerable household.	Current services for the fuel-poor have been successful at reducing fuel poverty and GHG emissions and so need to be maintained.		✓		✓

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
	A14: Able-to-pay Orientated Retrofit Service	Work with other Gloucestershire local authorities to identify the local need for, and set up, a county-wide service which acts as a trusted partner for the able-to-pay retrofit market, potentially providing services such as advice, referrals, and supply-demand coordination.	There is currently a lack of know-how and confidence amongst residents who are able to pay for retrofit improvements to engage with the market.		✓		

Renewable Energy

2030 vision

Energy consumed within the district is from renewable and decarbonised sources. Much of this is generated within the district via decentralised power systems utilising increased energy storage. Localised markets for energy supply offer competitive value. Our energy systems are smarter and planned to integrate to minimise energy waste.

Forest of Dean's progress so far

Renewable Energy Supply Tariff

In April 2020 the Council (via its Publica contract) began sourcing its electricity through West Mercia Energy's (WME) Pure Green Tariff (power supplied by Total Gas and Power (TGP)). The contract with WME includes conditions committing WME/TGP to supporting the Council with local renewable energy generation, whereby energy generated from a council owned solar farm for example, would be purchased by TGP via their Power Purchase Agreement (PPA) and directly offset against the Council's energy consumption.

Renewable Energy on Council Property

The Council is installing a solar photovoltaic (PV) renewable energy system on the roof of the council office building in Coleford. It is planned that the system will also include some battery storage so that excess generated electricity can be stored and used at times outside of peak sunlight hours. A contractor for the design and installation of the system has been instructed with the aim of completing the work by September 2021. The system will provide an on-site source of power generation and contribute to meeting the need for local renewable energy generation in the district, therefore reducing pressure on the national grid. The system is estimated to save 53,684 kWh of energy per year that would otherwise be supplied through the grid, equivalent to 13,592 kg CO2e per year.

The Council is also in the process of producing a heat decarbonisation plan for the council offices that will identify options for replacing the building's current fossil fuel powered heating system with a renewable energy system. Additionally, it has begun investigating installing renewables at the council owned swimming pool building at Lydney Leisure Centre leisure centre services.

Actions for 2022-25

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
Direct Control	B1: Renewable Heat at Council Offices	Investigate an investable renewable heat energy generation plan for the Council's offices in order to reduce the building's heat energy demand.	To lead by example and help create a pathway for renewable energy generation in the district.			✓	
	B2: Renewables on Council Owned Land and property	Investigate and deploy viable renewable energy generation on the Council's estate in order to help meet the Council and district's energy demand.	To lead by example and help create a pathway for renewable energy generation in the district.		✓	✓	

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
Direct Control	B3: Renewables at Leisure Centres	Investigate and deploy viable renewable energy generation at the council-owned swimming pool building at Lydney Leisure Centre, and use learnings to work with partners to do the same at school-owned leisure centre buildings.	Our leisure centre services combined are responsible for 35% of the Council's total GHG emissions.		✓	✓	
Indirect Control	B4: Renewables Planning	Actively encourage the deployment of new energy generation, including community energy projects, by identifying opportunities and constraints and creating appropriate planning policy and guidance.	Private developers and community run schemes both have an important role to play in helping increase the district's renewable energy generation capacity.		✓	✓	

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
Indirect Control	B5: Renewables in New Developments	Establish a positive planning policy framework for maximising the use of renewables within new developments.	The inclusion of on-site renewables in new developments will play an important role in increasing the district's renewable energy generation capacity and reducing pressure on the national grid.		✓	✓	
	B6: Identify Areas for Renewable Energy in Local Plan	Identify areas in the Local Plan which are suitable for the deployment of renewable energy generation.	Identifying suitable areas in the Local Plan can help facilitate and secure the development of renewable energy generation.		✓	✓	
Influence and Partnership	B7: Support renewables across the District	Support the community partnership to promote renewable energy technology uptake amongst residents, businesses and other organisations.	Achieving carbon neutral across the district will depend on all stakeholders committing to the transition.		✓		

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
	B8: Signposting	Support residents and business seeking to install renewable technologies by using the Council's communication systems to signpost to advice and local expertise.	The Council can leverage its position as a trusted organisation as well as the learning experiences from installing renewables on its own buildings.		✓		

Transport

2030 vision

Transport networks across the district will have been re-shaped to prioritise low-carbon public transport and active travel, the latter being the preferred mode of travel for journeys of a few of miles or less. Rural communities will be less reliant on travel by car and better connected to other parts of the district and beyond. A comprehensive network of public charging points will help ensure that when cars are used, owning an electric vehicle is simple and inclusive of all residents, regardless of access to off-road parking. Residents will be healthier thanks to increased active travel and reduced air pollution.

Forest of Dean's progress so far

Electric Vehicle Charging Points

The Council have been investigating options for installing electric vehicle charging points (EVCPs) in council owned car parks in order to support the use and increase the uptake of electric vehicles by people living and travelling in the district. Following a feasibility study by Element Energy Ltd, funded by South West Energy Hub, the Council is proposing to initially deploy two dual fast (22kW) charge points in a car park in Coleford, Cinderford, Lydney and Newent, with further deployment phases to follow. A joint procurement has been undertaken with the three other Publica councils and a preferred contractor has been selected, with whom the Council will be looking to engage with in order to deliver phase one of the project in 2022.

The Council has also been exploring installing EVCPs in the Coleford office car park. The chargers would enable the use of electric vehicles for council business and enable the street wardens to utilize a free electric van trial that the Council has secured for a 1-2 week period. The EVCPs would also be available to staff with plug-in hybrids or electric vehicles. Two quotes were obtained from EVCP providers and a business case produced, however this has now been put on hold whilst the office has been closed during the Covid-19 pandemic, as the future use of the office building post-Covid is not fully known. The aforementioned deployment of EVCP in public car parks is now being prioritised instead.

The Council are also looking at leasing electric vehicles for its pool cars once EVCPs are installed, in the meantime we have switched one of the diesel pool cars for a self-charging hybrid. We are also looking into options for replacing the Council's fleet of waste collection vehicles with electric ones, although there are challenges with regards to standard electric waste collection vehicles fitting down narrow streets in the district.

The Council has also introduced new planning conditions that require new dwellings or tourism accommodation with curtilage parking, residential developments with 10 or more non-curtilage parking spaces, and commercial and tourism developments to have a fully

operational EVCP installed and retained for the life time of the development to encourage the use of electric vehicles.

Cycleways

In 2020, the Council carried out a survey of residents in the district on walking and cycling in the district. 249 people took part in the survey and the results will be used to aid targeted feasibility studies for new cycle and walkways in the district, the development of the new Local Plan and inform Government funding applications.

E-bikes

A quote for an e-bike trial was obtained in February 2020 with the intention of giving council staff the opportunity to try using e-bikes for commuting and personal use with the view to purchasing one once the trial ends. It is hoped that an increase in e-bike ownership in the district may help residents overcome some of the topography issues associated with cycling in the district. The trial has been put on hold due to the Coleford offices being closed because of Covid-19.

Staff travel

Publica has launched its Agile Working Strategy to encourage flexible working practices amongst its staff working across its shareholder councils. The strategy aims to create a positive, flexible working environment that supports a more efficient and effective approach to work. This will include allowing staff to choose whether to work from home or from the office and is expected to reduce the amount of time staff spend commuting to work, as well as the associated GHG emissions.

Actions for 2022-25

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
Direct Control	C1: Reduce Unnecessary Staff Travel	Produce policy and guidance for staff to ensure that the use of videoconferencing technology becomes the default mode where possible for holding and attending both external and internal Publica meetings, thereby reducing unnecessary car travel.	The recent homeworking experiences of the Covid-19 pandemic provide opportunities and understanding for how we can develop as an organisation to be less reliant on car travel for attending meetings.	✓			✓
	C2: Electric Vehicle Pool Cars	Continue to explore options for replacing pool cars with electric vehicle equivalents once the necessary charging infrastructure is in place.	The Council can lead by example in the transition to electric vehicles.	✓			✓

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
	C3: Low-carbon Waste Collection Vehicles	Investigate options and identify a pathway, relevant to the district's rural context, for transitioning the Council's fleet of waste collection vehicles to low-carbon equivalents when they reach end of life in circa 2024. Track developments in electric and hydrogen powered collection vehicles, including the HECTOR Project trial deployment of 7 hydrogen fuel cell vehicles, in 7 pilot sites across north west Europe.	The Council's operational fleet is its largest emissions source, of which waste collection vehicles make up a considerable majority. There is currently no clear pathway for decarbonisation, with particular challenges for rural areas.	✓			✓

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
Indirect Control	C4: Install Electric Vehicle Charging Points	Facilitate the uptake of electric vehicles by leading in the deployment of EVCP across the district, focusing on installations in council owned public car parks. Ensure that all parts of the district are serviced. Monitor market conditions concerning greater market-led deployment and adjust deployment and investment strategy accordingly.	To overcome the barriers to Electric vehicle uptake we need to improve infrastructure.	✓		✓	✓

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
	C5: Increase Active Travel Infrastructure	Deliver a programme of measures to facilitate safe and convenient active travel in the district, including the construction of low-gradient cycleways and walkways to link the districts towns and villages, provision of bicycle parking facilities, bicycle share and hire schemes, cycle network maps and information, and e-bike charging stations and trial days.	A lack of infrastructure is a major barrier to active travel. In particular, we need to deliver some bespoke cycling solutions to provide a viable alternative to car travel for our hilly and rural district.	✓			✓
	C6: Promote Low-carbon Travel Amongst Contractors	We will ensure low carbon transport and short travel distances are a priority in our procurement processes.	We can influence some of our major stakeholders through our procurement practices and set high standards by our own practice.	✓			✓

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
	C7: Adopt a Low Car Use Development Planning Approach	Establish proactive planning policy, including via New Local Plan, for new developments that minimises the need to travel for amenities and plans for the development of multi-modal interchanges to facilitate public transport and active travel measures rather than the use of the private car. Ensure access to sustainable transport is considered in strategic planning applications.	Concentrating & mixing development will reduce the need to travel and support the development and use of active travel and public transport networks.	✓	✓		✓

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
	C8: Incentivised Taxi Licencing	We will review and consult on how we can use services such as licensing to encourage more low carbon taxi and mini-cab vehicles in the district and discover what other incentives maybe required.	Licensing and enforcement measures are potential levers for carbon neutrality but it is also important to consider how decisions can affect the small business owner and therefore consultation on how this can be done is important.	✓			✓
Influence and Partnership	C9: Active Travel Awareness campaigns	We will work with and support partners, including the community partnership, to develop campaigns to promote active travel and its health benefits, particularly in relation to school journeys	Targeted and informative campaigning can encourage participation in active travel.	✓			✓
	C10: Lobbying	Lobby Gloucestershire County Council and national Government for increased provision and investment in rural bus and rail services and infrastructure.	A large proportion of the district's emissions are a result or people travelling in and through the district, however the Council has minimal direct influence over highways and public transport provision and so we must ensure that we are leveraging what influence we do have over this.	✓			✓

Economy

2030 vision

Locally based employment and purchasing drives a circular economy that is ensuring we can deliver on our energy and transport challenges and to make a sustainable lifestyle affordable, attractive and accessible for us all. Local assets for innovation and skills development, underpin widely recognised success as a low carbon society.

Forest of Dean's progress so far

Procurement policy

A draft Foundational Sustainable Procurement Policy has been produced outlining seven key principles that the council intends to incorporate into its procurement evaluation process in the future. A Sustainable Procurement Foundation Matrix has also been created to assess if and how suppliers of goods and services are demonstrating these seven principles. Suppliers where contract values are over £50k are being encouraged to complete the matrix. Whilst the outcomes from this are not currently being used as part of the procurement decision making process it is envisaged that the policy and matrix will be developed further over time and then fully incorporated into processes. In the meantime it will enable FoDDC to understand how suppliers are currently performing in relation to the principles.

Actions for 2022-25

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
Direct Control	D1: Divest From Fossil Fuels.	As part of the Treasury Management Strategy establish an evaluation system and process for divesting the Council's investments and pensions from fossil fuels and other polluting industries, and invest in appropriate renewable energy projects, particularly in Gloucestershire.	Continued investment in fossil fuels is in contradiction to the Council's declaration of a climate emergency. Such investments are potentially over valued as they are dependent on continued extraction, which is inconsistent with keeping global warming to below 2°C. We can help support and shape the local economy through our investments and encourage ethical practice amongst the district's businesses.	✓	✓	✓	
	D2: Environmentally Friendly Staff Pensions	Engage with the other Publica shareholder Councils and the Publica staff pension provider to offer a low carbon and environmentally friendly pension plan as the default plan for new employees.	Encouraging the adoption of alternative pension plans amongst staff is a key way that the Council can influence high emitting and polluting industries outside of the district.	✓		✓	

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
	D3: Food Supply Chains	We will ensure that food purchased by the Council comes from local, low emissions sources.	We can help support and shape the local food economy through our purchasing choices.	✓	✓	✓	
	D4: Community Climate Action Fund Levy on Car Park tickets	As part of a Car Parks Strategy review investigate the benefits of introducing a levy on parking tickets issued for Council owned car parks with the revenue ring fenced for the creation of local Community Climate Action Grant Fund	Such a grant scheme would provide much needed funding opportunities for enabling community led projects to get off the ground.		✓	✓	
Indirect Control	D5: Sustainable Procurement Policy and Practice	Develop the Sustainable Procurement Matrix further and incorporate it into procurement decision making in order to implement local, low carbon purchasing for the Council's own business needs.	We can help support and shape a localised circular economy and drive best practice through the criteria we apply to our purchasing decisions, even if legislation does not permit us to directly favour local companies.		✓	✓	

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
Influence and Partnership	D6: Promote Low Carbon Skills	Explore how we can promote and facilitate the development of local skills and knowledge to service the growth in local green industries. Support the community partnership and Forest Economic Partnership with initiatives that do this, bringing on board local education and training providers to help match growing demand for skills with local supply.	The growth in demand for green industries provides an opportunity to drive local low carbon/net zero growth economic growth and steps should be taken to ensure local companies and tradespeople have the necessary skills and knowledge so that as much of the benefit remains within the local economy as possible.		✓	✓	

Waste

2030 vision

Waste from the manufacture and use of goods is minimised. Products last longer, breakdown into re-useable parts and there is a strong re-use/remanufacture economy that is reducing the need for landfill and recycling. People are well educated about avoiding waste and make good choices driving a low carbon, localised market.

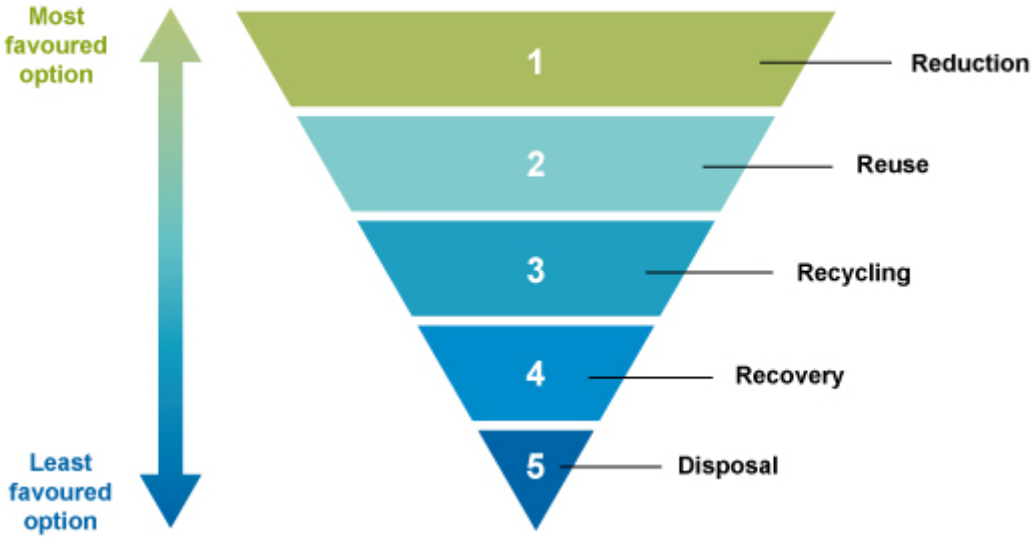


Figure 8: The waste hierarchy

Forest of Dean's progress so far

Waste Management Service Options Appraisal

The Council has engaged a consultancy to carry out an options appraisal to enable the Council to better understand the options available to them to enhance the performance of the current waste management services and generate financial and carbon savings. This includes consideration of the future policy landscape and the environmental impact of providing a waste management service (including from collection, transporting and onward transfer and processing of materials). In support of the climate emergency declared by the Council, the project will assess the carbon impacts of each option. The project also includes an appraisal of the different service delivery options for the waste and recycling service, which considers the requirement for a depot. The Council is hoping to have a clearer idea of what a new service may look like later in the year. This action plan will then be updated accordingly.

This project is being conducted in parallel to the waste strategy options appraisal for the Gloucestershire Resources and Waste Partnership.

Actions for 2022-25

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
Direct Control	E1: Monitoring of Council's Waste	Implement waste monitoring on the Council's own estate. Introduce benchmarking and targeting of reduction formulated into a waste reduction plan. Shape service delivery to be waste free (e.g. paperless billing).	Strict monitoring and ambition targets are required to ensure that the Council is leading by example in the drive towards a circular economy.	✓			
	E2: Staff Awareness Training	Provide staff awareness training to reduce the single use waste in the Council's operations.	Education is key to engendering behaviour change.	✓			
	E3: Low-carbon Waste Management Service	Following the findings of the waste management services options appraisal, implement an option that delivers considerable carbon savings	The introduction of new services provides an ideal opportunity to ensure they are in line with our climate emergency goals.	✓			

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
Indirect Control	E4: Procurement Policy Reviews	Review of the Council's Procurement Policy to bring it in line with sustainable use principles and the waste hierarchy to ensure purchasing new is secondary to reuse, leased and second-hand equipment, and where necessary conducted with consideration to environmental concerns and locally sourced where possible. Staff training and awareness programmes will be provided to support this.	Our purchasing practices strongly influence the emissions and ecological damage from waste that we dispose of.	✓			
Influence and Partnership	E5: Support Community Best Practice	Support community wide activity to reduce waste, improve reuse and recycle	The switch to a circular economy will require behaviour change across all parts of the community, and the Council has an important role in aiding this.	✓			

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
	E6: Lobby National Government	Encourage national policy that reduces waste at source and reduces in-built obsolescence.	Council and community behaviour change, the switch to a circular economy is heavily dependent on changes upstream to how goods are designed, manufactured and packaged.	✓			

Natural Environment

2030 vision

Our natural landscape is used and managed to optimise carbon sequestration and biodiversity benefits, acting as a large carbon sink to offset any remaining GHG emissions, as we as ensuring safe and inviting habitats for both human and wildlife populations. Landscape and economic development is both protecting and nurturing nature, whilst mitigating and building our resilience to a changing climate.

Forest of Dean's progress so far

Grass cutting reduction trial

In June 2021 the Council commenced a trial to leave grassed areas at Newerne Street Car Park and Centurion Road in Lydney mostly untouched though the growing season, to allow wildflowers and grasses to flower and seed. Over time, this cycle of propagation is expected to improve the range of plants in the grassland as well as the insects and other animals they support. This means the district council will only be mowing the grass twice a year in some places, including a final cut at the end of the summer, although established paths through the grassed areas and edges will continue to be cut back regularly to maintain access. Grass cuttings will be left as 'habitat piles' at each of the sites to attract insects and other wildlife, such as toads and slow worms, to inhabit the areas and to reduce transport GHG emissions by not having to remove the waste, adding to the sustainable way in which the sites are managed. The piles will also release valuable nutrients back into the land as the material composts down over time, improving soil health.

Reduction of glyphosate weed killer

The Council has brought forward its timetable to substantially reduce the use of glyphosate-based herbicides, pesticides and chemical slug pellets on council managed land under its commitment to help the environment and to better protect residents' health. A motion was agreed at Full Council meeting in December 2020 to stop the use of the broad-spectrum herbicide on any council area specifically used for food, with the ban taking effect immediately. Some studies suggest that glyphosate - used widely across the UK and Europe - poses health risks for fish and other marine life and claims have linked the chemical to gut problems in insects. The council's longer-term aim is to eradicate wholly the use of glyphosate within its land management operations, except in very specific circumstances such as for tackling Japanese knotweed.

Horseshoe bat planning guidance

The council has produced guidance to set out some key principles for supporting the assessment and evaluation of development proposals in the horseshoe bat rich landscapes found in the Wye Valley and Forest of Dean. The guidance is for those involved with the planning system; principally for consultants and applicants in order that they can easily get to grips with the requirements for bat surveys in relation to horseshoe bats.

Actions for 2022-25

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
Direct Control	F1: Enhance Council's Estate	Identify areas of the Council's estate to enhance ecological value, carbon sequestration and climate resilience (surface water run-off and natural flood management) through the use of green infrastructure concepts as well as rewilding opportunities.	There are a range of measures that can be taken even on the smaller strips of land to improve carbon storage, resilience and biodiversity.	✓	✓		✓
	F2: Develop Carbon Sequestration Monitoring Valuation Approach	Develop a scientifically robust approach to identify & monitor carbon sequestration values of council owned open space	Effective monitoring valuation will enable progress to be quantified.	✓	✓		

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
Direct Control	F3: Action Plan for the Elimination of Glyphosate on Council Land	Produce an action plan and timetable for a major reduction, to zero over time, in the spraying of glyphosate on Council land by using mechanical methods (such as hand weeding or using the 'Foamstream' system) or herbicides that are proven to be safe, in order to guarantee safety. Identify within Council finances, at the earliest opportunity, the modest funds needed to investigate such alternative options and their implications. Learn from other councils that have already enacted a ban, such as Mitcheldean Parish Council and	A clear, fully funded pathway for action is required to ensure the Council has the capability to fulfil the commitments declared in the motion agreed at Full Council meeting in December 2020.	✓			✓

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
		Glastonbury Town County.					
Indirect Control	F4: Community Tree Planting Guidance	Develop and provide guidance to ensure community tree planting initiatives are ecologically robust and sensitive to the local landscape.	Although not a panacea, tree planting will play an important role in increasing the district's carbon sequestration capacity, how community knowhow will be vital for ensuring that ecological benefits are also maximised.	✓	✓		✓
	F5: Biodiversity Net Gain Planning Strategy	Develop a strategy for implementing biodversity net gain within planning policy.	Developments should not just be required to mitigate their ecological impact, but rather make a positive contribution to the ecological recovery of the natural environment. A clear strategy can lay key foundations for this. Relevant policies included in Local Plan. Additional staff resource in place if necessary. Appropriate assessment methodology identified and incorporated into processes	✓			

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
	F6: Plan For Sustainable Drainage Systems	Work with key partnership such as Lead Flood Authority and Environment Agency to develop Sustainable Drainage (SuDS) Supplementary Planning Document (SPD) and ensure that drainage solutions are of high ecological and social value.	Proven sustainable alternatives to traditional drainage solutions are available that can provide a multitude of additional environmental, economic and community benefits. Planning support is needed to ensure these systems are optimised to deliver these benefits. Line of communications with GCC and EA established. Methodology for evaluating SuDS value established. SPD produced.	✓	✓	✓	✓
	F7: Plan for Retrofit Sustain Drainage Systems	Develop a plan for the retrofitting of SuDS into existing built up areas at risk of flooding.	The National Planning Policy Framework stipulates a requirement for SuDS to be incorporated into new developments, however no such requirements currently exist for retrofitting in existing settlements. At risk areas identified. Methodology for evaluating SuDS value established. Plan published.	✓	✓	✓	✓

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
Influence and Partnership	F8: Promote Ecological Land Use and Land Management Practices	Use the Council's communication systems to share ecological and carbon sequestering land management best practice. Support the community partnership to do this as well.	Promoting best practice will play an important role in engendering the necessary culture change, and the Council is well placed to make use of its reach within the community to do this.	✓	✓		
	F9: Promote Ecological Gardening Practices	Use the Councils communication systems to encourage gardeners to adopt climate and biodiversity friendly practices. Raising awareness around the negative impacts of removing trees, using pesticides and peat-based compost, and paving gardens.	Promoting best practice will play an important role in engendering the necessary culture change, and the Council is well placed to make use of its reach within the community to do this.	✓	✓		

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
Influence and Partnership	F10: Discourage use of Glyphosate in District and County	Encourage our partners, Gloucestershire County Council, and town and parish councils within the district to cease the spraying of glyphosate in all their council operations as soon as possible.	The Council can and should leverage its influence to promote the benefits of reducing and eliminating the use of glyphosate in order to engender the necessary culture change.	✓			✓
	F11: Campaign Against Unnecessary Weed Removal	Educate and campaign for the recognition that, in some circumstances, native 'weeds' should be deemed acceptable and acknowledged as valuable wild plants that support pollinators, which could remove the need to eradicate such plants in many of our landholdings, leading to a cost saving and increased biodiversity.	Increased awareness within the community is likely a prerequisite to behaviour change and the Council is well placed to make use of its reach within the community to do this.	✓		✓	

Actions		Description	Rationale	Key co-benefits			
				Improves ecological outcomes	Builds community resilience	Encourages economic sustainability	Enhances health and wellbeing
	F12: Countywide Partnership for Nature Recovery and Natural Capital	Via the Gloucestershire Local Nature Partnership, help develop a nature recovery network, and natural capital mapping and investment strategy that enhances both biodiversity and carbon storage.	A joined-up countywide approach is vital for nature recovery, as well as appreciating the full benefit of natural capital, both of which transcend district boundaries.	✓	✓	✓	✓

Community

2030 vision

The Council and the district's communities have developed strong networks of collaboration with a strong ethos on respect for climate issues. We are minimising our environmental impacts as producers, consumers and service deliverers and climate impacts have been deeply integrated into the decision making of the district's businesses and organisations.

Forest of Dean's progress so far

Climate Emergency Community Partnership

It had been hoped that the Climate Emergency Community Partnership would be launched and fully operational in 2020, however this has been delayed due to the impact of the Covid-19 pandemic on the Council's resources. Despite this, two online events took place in 2020 to establish interested parties' preferred structure and model for the partnership. The first event involved hearing from three speakers about different examples of partnerships that may be suitable for the community partnership. The second event was a workshop discussing these different options, with a strong consensus for adopting some form of the HUB model, accompanied by a Climate Assembly to identify priorities for partnership and direct its work. Full details of the outcomes of these events along with descriptions of the HUB Model and Climate Assembly can be found here: https://www.fdean.gov.uk/media/tlkaifix/outputs-from-climate-partnership-development-event.pdf .

Since then an interim working group of volunteers from the community has been assembled to put in place the partnership's foundations in preparation for a more permanent Hub team to be selected ready to start coordinating and working on climate action projects and initiatives across the district. The plan is for the Community Partnership to be up and running by autumn 2021.

Parish and Town Council Climate Action

In partnership with the Centre for Sustainable Energy, we hosted a climate action day on 7th October for Parish and Town councillors and clerks. The event aimed to provide attendees with a good grounding on the context, drivers, facts and figures for climate change from global to local levels, as well as an understanding of the role of local councils, what levers of influence they have, and actions they can take. In total, twenty-one delegates attended from across Forest of Dean district. Since the event, around 10 Parish Councils have joined together to form a Parish Climate Action Group Network aiming to share ideas and experiences.

Actions for 2022-25

The Council's Corporate Plan commits to engaging with the community to encourage and promote immediate and longer-term actions they can take to reduce their carbon footprint. This was also identified as a key action in the Rapid Action Plan.

The Council will continue supporting the creation of the community partnership and continue this support once it is operational so that it can drive climate action outside of the means and control of the Council. The partnership will be independent from the Council and determine

its own priorities for action based on a bottom up approach aimed at coordinating and scaling up projects and initiatives for maximum impact across the district. The partnership will be responsible for ensuring it is representative and inclusive of all communities across the district and that the wide range of skills, knowledge, and connections present across its residents, organisations and businesses are harnessed fully to address the climate emergency.

Although the partnership will set its own agenda for action, some suggested activities that it could focus on include:

Action
G1: Encourage carbon foot printing
G2: Promote renewable energy supplies
G3: Cumulative purchase opportunities for energy saving / renewable energy measures
G4: Behaviour change around active travel and sustainable travel choices
G5: Environmentally friendly gardening practices, tree planting/awareness around tree removal and pesticides
G6: Community/organisational behaviour change
G7: Reduce unnecessary lighting in public spaces and switching to LEDs
G8: Behaviour change around heating and air conditioning usage
G9: Raise awareness of funding for energy efficiency/saving measures
G10: Promote green industry skills and training
G11: Promote staff lift sharing, discourage unnecessary travel, encourage online meetings
G12: Embed climate change in organisation decision making and CRS
G13: Work with local government to demonstrate public need and support for policy e.g. better public transport
G14: Maintaining and managing a website with educational material, how-to lists and tools, and project/case study report

Making It Happen

Taking action to address the climate emergency cannot be done solely by dedicated officers working within the Council. It will need a multi-disciplinary approach, drawing on skills and resources from across the organisation, its wider partners and the district as a whole. Climate action will need to be embedded into the decision making and operations of every department and role within the council, as well as every household, organisation and business in the district if we are to collectively achieve our goal of become carbon neutral by 2030.

Further Resources

Gloucestershire County Council Climate Change Strategy

Climate Action Tracker, Warming Projections Global Update May 2021

IPCC Special Report: Global Warming of 1.5°C - Summary for Policymakers

State of UK Climate 2019, International Journal of Climatology, Royal Meteorological Society

Planning For The Future UK Government White Paper August 2020

2020 UK Climate Assembly Report

Greenhouse Gas Emissions from Forest of Dean District 2005 to 2018

Reducing UK emissions Progress Report to Parliament June 2020

Working from home can save energy and reduce emissions. But how much?, IEA