



September 2022

# Wokingham Borough Council Climate Emergency Action Plan

## Third Progress Report

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## Foreword

The climate emergency we are currently facing is the effect of all human created emissions throughout history. Today, we are at 1.2 degrees of warming and already witnessing an unprecedented increase in the frequency and magnitude of extreme weather events from droughts, heatwaves, flooding, winter storms, hurricanes, and wildfires<sup>[3]</sup> across the globe. These risks have direct and indirect impacts on everyone, as shown by the recent economic impacts of the pandemic and conflicts, as a result of disruption to the global economy.

Despite these warnings, we continue to head for a dramatic temperature rise of 3-5°C this century<sup>[1]</sup>, threatening humanity and the world's natural ecosystems if nothing is done. The signs of an acceleration in warming are clear, 2020 was the hottest year on record so far, bookending the hottest decade worldwide<sup>[2]</sup>, meaning our horizon for action is shrinking.

Our future response must exceed the totality of our collective emissions. In October 2018, the Intergovernmental Panel on Climate Change (IPCC) report set out the dire consequences if humanity fails to limit warming to 1.5°C – on our health, economy and our lives. In response to this, The UK adopted The Paris Agreement in November 2016, and has committed to reduce greenhouse gas emissions by 100% by 2050.

Over the last year, the UK Government has introduced more ambitious strategies to support the decarbonisation targets. While these strategies are an important step towards reaching net zero, they are aimed at the 2050 goal and considered by many, including the recent Climate Change Committee (CCC) [report](#), to be insufficient to reach these targets. It is therefore recognised that the current government actions are not enough to reach our own ambitious goal, with more support needed in order to expand and implement these actions successfully. However, the scale of the challenge remains colossal, and everyone needs to play a role, so bringing together businesses, organisations and the public is vital.

As such, continually communicating the potential solutions residents and businesses can take continues to be a priority whilst we do what we can to remove any barriers, with future material being clearer, more accessible, and more inspirational, connecting to the deeper more personal issues such as co-benefits and costs, explaining the vital returns on investment from actions taken, while still always listening to feedback.

Indeed, the cost of climate change action is outweighed by the additional significant co-benefits which will result, beyond just reducing emissions. These are outlined against each action in the relevant table but include:

- Significantly improving air quality and the associated public health benefits through reducing the risk of respiratory diseases and irritation, particularly impacting the vulnerable population. This section has its own specific [air quality action plan](#) outside the CEAP.
- Generating direct cost savings from less fuel/electricity use.
- Enhancing biodiversity, green spaces and nature-based adaptation such as increased flood defences from absorption.
- Supporting economic growth by creating jobs and trade in the new green industries.
- Improved public health (physical and mental), less strain on the NHS and reduced crime by people travelling more actively

It is important to note that the (CCC) report does not recommend that local authorities are set binding carbon budgets due to the range of factors affecting local emissions that are beyond their direct control. However, it does recommend that local authorities consider Net Zero action plans for their own emissions and that they work in partnership to reduce area wide emissions. Despite this, the UK government still has not given much needed statutory powers to local government when it comes to tackling climate change.

<sup>[1]</sup> State of the Planet speech, United Nations Secretary General Antonio Guterres. December 2020

<sup>[2]</sup> [World Meteorological Organisation](#)

<sup>[3]</sup> [Facts about the Climate Emergency, UN Environment Programme](#)

## Introduction

In response, in July 2019, Wokingham Borough Council (WBC) members unanimously declared a climate emergency. The declaration set out the commitment to play as full a role as possible, leading by example as well as by exhortation, in achieving a carbon neutral borough by 2030. Subsequently, the council published its first Climate Emergency Action Plan (CEAP), establishing the eight key priority areas to focus on mitigating CO<sub>2</sub> emissions. This plan has since been separated into two slightly different sections, initially focused on the emissions of the borough as a whole, with the council emissions separated out below for clarity.

This progress report is the latest iteration and now details more precisely the real actions and associated savings the council realistically plans to achieve by 2030, based on what is possible in current circumstances. It outlines the current stage of each of the major actions within the plan, alongside the associated carbon savings, where possible. The report summarises the Borough's plans for the years ahead and demonstrates the benefits of becoming net zero.

The biggest gains are expected to come towards the end of the decade after most of the actions have come to fruition. Short term actions can be achieved within a few years (2023-2024), medium term actions are designed to take several years to reach fulfilment (2025 to 2028), and longer-term actions will take many years to come to fruition (2028 to 2030).

In total the actions below will save a total of 214.72 ktCO<sub>2</sub>e, meaning a shortfall of 264.27 ktCO<sub>2</sub>e remains. This demonstrates the scale of the issue and outlines the importance of a whole society approach as well as wider government support, as without the statutory powers and funding required, the major actions required to reach net zero are not currently achievable.

The climate emergency affects us all, but we are acutely aware that not only does climate change impact nations who emit very few emissions

disproportionately with devastating consequences, the impacts of climate change can be more severe for some groups of people. Research shows that those most at risk include people with respiratory health conditions, children, older adults, and people in poverty. WBC is committed to tackling inequality and promoting inclusion.

We will listen to and learn from our residents, ensuring we empower everyone to take action to ensure a just transition to a more sustainable future. To ensure that we are taking every opportunity through this plan to tackle inequality, we conduct Equality Impact Assessments on all significant projects. These enable us to identify and act on impacts on different groups of people at all stages of planning and delivery.

We recognise the need to be agile to a dynamic landscape, meaning actions within this plan will continually be revisited to tweak, adjust or even entirely re-evaluate them in line with actual progress, new policies, and global events that might affect the climate emergency agenda. Indeed, the direct effects climate change is likely to have on the local environment means that adaptation to minimise these risks, such as flooding or biodiversity loss, has been incorporated into actions wherever possible, alongside in individual project assessments, though it is recognised that more significant action is needed here, with a full climate adaptation plan underway.

Furthermore, the council recognises the importance of the United Nations' Sustainable Development Goals (SDGs) and aligned the key areas to the SDG framework. In doing so, the council hopes to ensure that its actions contribute to global level action and lead to a socially just response.

To ensure we are on track to reach these goals, they will each be closely monitored, with a RAG rating system in place to provide clarity. Here each target has been assigned a colour based on the standard RAG system, where green represents being on track to being achieved, orange indicates currently being slightly delayed, red indicates being delayed or cancelled and grey means it has not yet been started.

## The Changing Landscape

WBC has established a strong track record for delivery on actions to address climate change, but the Council's influence is varied and complex across the different activities that occur within their own operations and the Borough.

While WBC has some influence over emissions in the local area, these are often limited. This means partnership and collaboration – and the Council's role as an influencer and convenor – will be vital to achieving success, given that the majority of the emissions cuts needed rely on individual people and businesses taking up low-carbon solutions. With many of these decisions depending on having supporting infrastructure and systems in place, this is another key area the council are aiming to support change. However, the last year has been volatile and the below key factors and government strategies will continue to impact the outcomes of our actions.

**2020**  
**Covid-19** has continued to affect us all, particularly in terms of increased costs, the strain on services and on many of the below actions, both positively and negatively. The council recognises the importance of maximising the benefits from aspects of the pandemic such as home working and better technology, while addressing concerns over public transport, to utilise this as an opportunity for positive changes.

**Inflation** in the past six years has meant the council has worked to reduce costs to be more efficient, but the authority continues to face a number of ongoing challenges and it has to focus on investing in its priorities, which offer value for money and improve services for residents. There has also been a rise in temporary accommodation and as a result, the council chose to prioritise investment in social housing in its 2022-23 budget.

**The COP26** Glasgow Climate Pact set out what needs to be done globally to tackle climate change. However, it doesn't stipulate what each country must do and is not legally binding.

**The IPCC Mitigation Report 2022** again highlights the importance of keeping the global temperature rise to below 1.5°C, outlining the devastating impacts missing this target would have on global ecosystems, markets, and human settlements. It then discusses an updated view on what can be done now, to avoid this disaster, including: slashing coal usage and subsidies, removing CO2 from the atmosphere directly through technology and storage, curbing demand from transport, accommodation and diets.

**The UK Climate Risk Assessment 2022** report assesses the future risks of climate change to the UK and emphasises the importance of incorporating adaptation into existing long-term plans and mitigation efforts. These include impacts on health and productivity, businesses and public services, deterioration in soil health and agricultural productivity, water availability and thereby our alternative energy supply. However, it also demonstrates that there are a range of options for improving resilience which represent good value for money.

**The Environment Bill** defines a number of new measures to protect biodiversity and the environment more widely. This includes centrally prescribed lists of materials that local authorities must collect for recycling, extended producer responsibility for packaging and a deposit return scheme for drinks containers. It also includes key measures on air quality, with local authorities receiving new powers, including the ability to declare an Air Quality Management Area (AQMA) and establish plans to reduce public exposure to air pollution which exceeds air quality targets.

**The Transport Decarbonisation Strategy** targets more sustainable options such as electricity and hydrogen, outlining that the future approach is about doing the same things but in a more efficient way. It prioritises moving away from transport planning based on predicting future demand to provide capacity, towards planning that sets an outcome communities want to achieve and provides the transport solutions to deliver those outcomes.

**The Hydrogen Strategy** examines the potential to provide energy, not just for vehicles, but as a renewable energy source. This will require a drastic change, encouraged by supporting new technology and opportunities in this sector. It also acknowledges the beneficial role hydrogen can play as a storage mechanism for excess renewable energy, helping to cover the traditional shortcomings in reliability from other renewable methods.

**The Net Zero Strategy** encompasses all of the above strategies and carbon budgets, outlining the next steps to cut our emissions, seize green economic opportunities, and leverage further private investment into net zero. It targets doing so in a sustainable way that still supports growth by improving the effectiveness and therefore viability of low carbon options.

**The Heat and Buildings Strategy** sets out the actions the central government will be taking to reduce emissions from buildings in the near term and provides a long-term framework to enable industry to invest and deliver the transition to low-carbon heating, but focuses primarily on hydrogen. Unfortunately, despite the ambition, there remains no statutory powers or funding for local councils as part of this.

**The EV Infrastructure Strategy** outlines the governments approach towards delivering the essential infrastructure to support the EV transition, along with the anticipated barriers and engagement elements, all supported by models for understanding the anticipated demand. The aim is to remove all these perceived and real barriers by developing the supporting network and encouraging chargepoint operators to expand their provision early, in order to deliver ahead of demand and so inspire future confidence in EV adoption.

**The Department for Education's (DfE) Sustainability and Climate Change Strategy** acknowledges the vital role education plays in helping to tackle climate change and creating a better, greener world for future generations. The strategy also sets out how local authorities will need to consider environmental sustainability, carbon reduction and energy efficiency to develop solutions for projects.

## Overview and Scrutiny

### Task & Finish Group for Climate Emergency

In order to scrutinise the Action Plan, the Overview and Scrutiny Management Committee established the Task and Finish Group at its meeting in February 2020. The Group has made 25 recommendations to help making it more robust, transparent and evidence based.

The Council used this input as the basis for further work, focused in particular on our approach to enable the engagement of residents and key stakeholders across the Borough, as well as to clarify the impact of specific schemes and ensure that they were supported by SMART targets. The Council published response to the Scrutiny Review to set out our underlying thinking about our current vision and strategy, outline what we intend to do and explain how the group's recommendations further our vision.

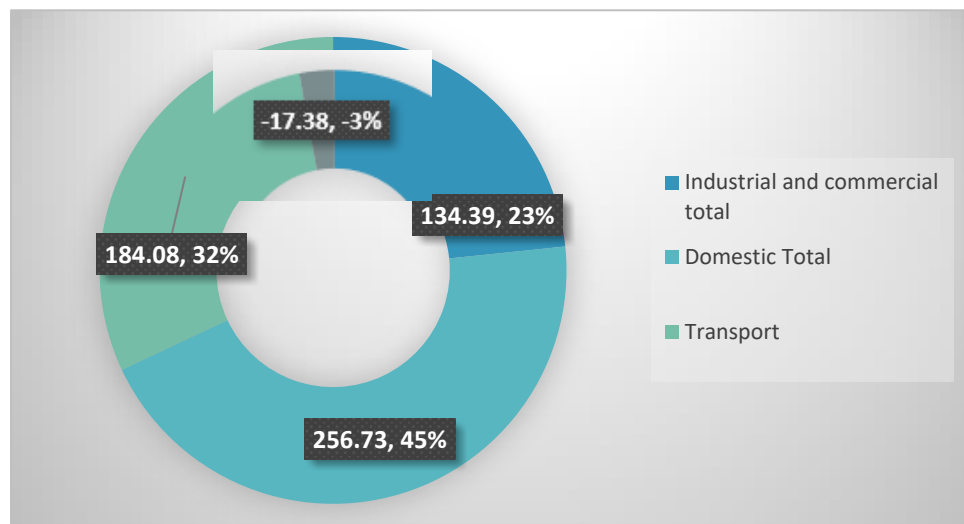
The Overview and Scrutiny Management Committee: Climate Emergency Task and Finish Group Report and Recommendations paper (September 2020) can be found [here](#). The Council Commentary and Response to Recommendations (October 2020) can be found [here](#).

### Auditing and Reporting

The council is constantly seeking to ensure the accuracy and quality of the information in the action plan, and that our response to climate change is as robust as it can be. To this end, an internal audit is currently underway, meanwhile this plan and future actions are externally and independently reviewed by the [council climate scorecards](#).

The council has also recently been highly commended by the MJ awards and are now reporting externally through CDP, an internationally accepted process used by many large cities and companies. The latest report on this can be found (here). This process also links to the UK100 scheme, which the council is in the process of joining in order to further pursue changes on a national not just local level.

## Current Emissions



**Figure 1.** Wokingham Borough Carbon Footprint 2019 (ktCO<sub>2</sub>)

Wokingham Borough's carbon footprint is **557 ktCO<sub>2</sub>**, as seen in Figure 1. This is based on government data and reported two years in arrears (BEIS 2019)<sup>1</sup>. This is comprised of emissions from: transport (32%), the industrial and commercial sector (23%), and the domestic sector (45%).

**Residential Buildings** emissions are the greatest single contributor to Wokingham's carbon footprint accounting for 256.7 ktCO<sub>2</sub> (45%). Of these, 59 ktCO<sub>2</sub> account for domestic electricity, 186.9 ktCO<sub>2</sub> for domestic gas usage and 10.8 ktCO<sub>2</sub> for usage of other fuels.

**Transport** emissions contribute to 184.08 ktCO<sub>2</sub> (32%). A roads account 76.7 ktCO<sub>2</sub>, minor roads 97.7 ktCO<sub>2</sub>, other transport modes 9.7 ktCO<sub>2</sub>. This figure excludes sectors that are completely beyond the council's scope of influence. For example, the emissions from major transport links (M4) (156 ktCO<sub>2</sub>) as well as diesel rail transport (12.4 ktCO<sub>2</sub>), which are managed by Highways England and national rail companies, respectively.

**Industrial and commercial** emissions from energy and fuel use in industrial and commercial buildings contributes to 134.4 ktCO<sub>2</sub> (23%) per year as follows: electricity 74.5 ktCO<sub>2</sub>, gas 39.9 ktCO<sub>2</sub>, large industrial installations 0.01 ktCO<sub>2</sub>, agriculture 4.1 ktCO<sub>2</sub>, and other fuels 15.8 ktCO<sub>2</sub>.

**Carbon sequestration** in the Borough accounts for 17.4 ktCO<sub>2</sub> (-3%) of savings a year through forestry and natural land use (LULUCF).

### How we measure carbon emissions:

The Greenhouse Gas Protocol provides a global standardised framework to measure and manage emissions. To distinguish between emissions occurring inside and outside the borough's boundary resulting from activities within Wokingham, emissions are divided into three categories: scope 1, 2 and 3.

**Scope 1:** Emissions associated with combustion of fuels directly by a consumer. Within Wokingham this mainly refers to gas use for heating, cooking and hot water, and petrol/diesel used by vehicles whilst they are on the Borough's roads.

**Scope 2:** Energy which is purchased from elsewhere but used by a consumer. Within Wokingham this means the electricity used in the borough. The emissions are created at power stations located outside of Wokingham, but the electricity is used within the borough supplied via the electricity grid.

**Scope 3:** Emissions resulting from the behaviour and activity of a consumer but occurring from sources outside of their control. Within Wokingham these are generally consumption-based emissions, which are out of the scope of the Borough's carbon footprint. However, the council will support behavioural change through the actions in this plan.

<sup>1</sup> UK local authority and regional carbon dioxide emissions national statistics: 2005-2017



## Future Emissions

The trajectory of carbon emissions for Wokingham Borough has been steadily decreasing since 2012. This is partly due to Central Government targets to increase the renewable energy infrastructure nationally and technological advances leading to greater energy efficiency. However, further significant direct action is needed in key areas such as transport and retrofitting in order to continue the reduction. This will rely primarily on actions directly from the council, requiring support from central government through policy changes and funding.

Current business as usual (BAU) projections from SCATTER (see appendix 1), follow a methodology based on numerous government strategies and incorporated targets and using 2019 BEIS data, estimate a 14% reduction by 2030. This has changed from previous iterations methods as it is now based on a more bottom-up approach, to focus more on the direct actions and impacts we can have as a council beyond national policy impacts. There are numerous approaches possible for this process as all are based on estimations, with both the current and previous approaches utilised by other councils successfully.

This represents a 78 ktCO<sub>2</sub>e saving, while actions in the plan are estimated to save 214.72 ktCO<sub>2</sub>e, meaning a shortfall of 264.27 ktCO<sub>2</sub>e remains. This demonstrates the scale of the issue and outlines the importance of wider government support, as without the statutory powers and funding required, the major actions required to reach net zero are not currently achievable.

### Consumption Based Emissions:

Those that extend beyond the Borough's boundary, whereby demand (and supply) of goods and services will be driving emissions in supply chains around the world. The CCC is set to broaden its reporting to include all of the UK's emissions from 2033, including those caused internationally by the country in the production and transportation of goods and services.

## Targets and Estimated Carbon Savings Summary

This action plan establishes targets to achieve carbon dioxide reductions in the below nine identified priority areas. Due to emissions coming from all sources, many of these actions will rely on each other and cannot be done in isolation, meaning the majority of projects are running simultaneously.

Targets are best estimates with the information we currently have, though the methodology is subject to ongoing refinement. For simplicity, the savings figures here are rounded down to the nearest whole number, though more precise measurements can be found in the methodology. Where possible, targets are aligned with government ones in terms of measurements, though stretched to be more ambitious than the 2050 goal.

The below table is a summary, with more detail on each specific target in the below full plan. The carbon savings outlined by each target represent the cumulative annual savings, towards net zero, ie they will contribute that amount of savings against the total emissions from the borough in 2030. Some of these targets will not directly represent carbon savings but are essential to the delivery of other targets; these are identified as 'Neutral'. We recognise more is needed and are continually adding new actions to this plan, with a number of emerging target areas outlined in individual sections.

Not all carbon savings for all the projects listed in this plan have been calculated, as some of the information needed for this calculation is not yet available. As projects develop, we will be able to give more information on carbon savings per individual actions. Estimated costs are provided for projects where feasibility studies have been completed and will be updated when possible for remaining work. Importantly, the council will aim to benefit from sustainable and low carbon revenue streams and there will be new opportunities to work with the Government and private sector on pilot projects, crowdfunding, grants and loans or joint projects.



	Section	Savings
	<b>Transport</b>	
1	50% Reduction in ICE private car mileage	
1.1	33% From EVs Registered	<b>44,957</b>
1.2	5% From Reduced travel	<b>6,812</b>
1.3	2% From Public Transport	<b>2,725</b>
1.4	10% From Active Transport	<b>13,623</b>
2	22% Reduction in Road Freight	
2.1	Freight Management Policy	<b>23,241</b>
2.2	Cargo Bikes	<b>Included</b>
	Subtotal	<b>91,358</b>
	<b>Renewable Energy Generation</b>	
3.1	Renewable energy generation via Solar farms	<b>14,058</b>
3.2	Renewable energy generation by households	<b>27,333</b>
	Subtotal	<b>41,391</b>
	<b>Retrofitting</b>	
4.1	PassiveHaus Scheme	<b>935</b>
4.2	Council Housing Retrofitted	<b>9,542</b>
4.3	Schools Retrofitted	<b>5,034</b>
4.4	Housing retrofitted	<b>55,490</b>
	Subtotal	<b>71,001</b>
	<b>Carbon Sequestration</b>	
5.1	Woodlands, Hedgerows and Orchards	<b>2,329</b>
5.2	Improve sequestration in land management	<b>2,031</b>
5.3	Implement carbon sequestration opportunities	<b>Included</b>
	Subtotal	<b>4,360</b>

	Section	Savings
	<b>Schools</b>	
6.1	Promote CE awareness and involvement in schools	<b>Neutral</b>
6.2	Celebrate schools' achievements in climate emergency	<b>Neutral</b>
	<b>Waste &amp; Recycling (Out of Scope)</b>	
7.1	Achieve 70% recycling target	<b>45,271</b>
7.2	3% of total waste going to landfill	<b>8,046</b>
	Subtotal	<b>53,316</b>
	<b>New Development</b>	
8.1	Residential development to achieve carbon neutrality	<b>Neutral</b>
8.2	Non-residential to meet BREEAM excellent standard	<b>Neutral</b>
8.3	Establish a spatial strategy around sustainability	<b>Neutral</b>
8.4	Support low carbon and renewable energy generation	<b>Neutral</b>
8.5	New buildings designed and built to be EV ready	<b>Neutral</b>
8.6	Council new development to carbon neutral standards	<b>Neutral</b>
	Subtotal	<b>Neutral</b>
	<b>Procurement</b>	
9.1	Achieve sustainable procurement practices	<b>Neutral</b>
9.2	Include social value	<b>Neutral</b>
	Subtotal	<b>Neutral</b>
	<b>Engagement</b>	
10	Raise awareness about climate emergency	<b>Neutral</b>
	Subtotal	<b>Neutral</b>
	<b>Council Specific Actions</b>	
11.1	Reduce council travel related emissions by 70%	<b>Included</b>
11.2	Council fleet all EVs	<b>Included</b>
11.3	Council buildings retrofitted	<b>6,612</b>
	Subtotal	<b>6,612</b>

## Transport

### Annual Carbon Savings: 91,358 tCO<sub>2</sub>e

Being one of the key contributors towards our emissions, and with higher-than-average car ownership in the borough, transport savings remains a priority area, as it is where the most quick savings can be achieved. Targets here are based around the vital overall goal of reducing ICE (internal combustion engine) mileage, both for private and commercial purposes. They are therefore split under these 2 primary areas, with the sub targets all contributing towards the main goals by a percentage (eg contributing 10% of the 50% total reduction).

Key areas include encouraging and supporting residents and businesses to transition to sustainable and active methods wherever possible, alongside reducing mileage by car sharing and so eliminating the additional journey. Active transport targets are currently ahead of the target estimation, though public transport and travel reductions are currently behind, meaning more actions or expansion of the current ones in these sections will be required for future iterations of the plan, to meet this overall goal.

Indeed, negative covid influences still remain around public transport, meaning the impact here is very limited. More focus is also recognised to be required around train usage, with work underway to include targets on this area in future iterations, hence are not included in current figures.

Moreover, the scale of these projects require significant external funding to implement, with a number of bids submitted for such this year alone.

However, these targets do not exist in isolation, with many reliant on others to reach their full potential and hence all projects are being progressed simultaneously. For example, active travel increases will require supporting infrastructure. Working with partners will be key to this, such as bus and rail companies or EV infrastructure providers, to maximise the benefits for all parties.

### Key Achievements this year:

- Estimated total savings of at least 41,762.26 tCO<sub>2</sub>e were achieved within the borough this year due to home-working and covid travel restrictions.
- Innovation Valley Rewards app scheme launched.
- £2.95m DfT grant for the Woodley to Reading Active Travel Route.
- 176 active sockets installed, with a further 190 planned.
- Feasibility study for on street and council owned car parks completed.

### Consumption Emissions:

- The only element of consumption within this sector would come from the initial purchase of a vehicle, which does not fall within our scope. Fuel is accounted for directly within scope 1 emissions.

### Action Changes:

- Previous Action 2.9 on low carbon engine buses has been removed as this is the same as action 1.3.3 here.
- Previous Action 1 on greenways has been removed as this is focused primarily around connecting SDLs not CO<sub>2</sub> savings.
- New action 2.2 – New business grant support for cargo bikes.
- Previous Action 6 on congestion has been removed as this will now focus on infrastructure improvements.
- Council specific actions moved to relevant section at the end of the plan.

### SDGS:



TR	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
T1	<b>50% Reduction in ICE private car mileage</b>				<b>68,117 tCO<sub>2</sub>e</b>	<b>TBC</b>	
1.1	<b>33% From EV Registration</b>				<b>44,957 tCO<sub>2</sub>e</b>	<b>TBC</b>	
305 1.1.1	<p><b>To develop an EV strategy for Wokingham Borough.</b></p> <p>Improved air quality, reduce NOx, PM10s, PM25, cheaper to maintain and run, better driving experience. Also supports more constant energy usage for overall lower emissions from production.</p> <p>Despite covid and traditional car sales declining in the pandemic, EV sales have risen across the board.</p>	<p>Borough wide strategy to specify the infrastructure for EV charging point to encourage the uptake of EVs.</p> <p>Map the existing EV chargers across the Borough and on council property.</p> <p>Obtain a baseline on current electric vehicle market, current ownership, forecast growth and charging infrastructure technologically.</p> <p>Develop and agree policy for EV charge point provision, which will maximise uptake of EV.</p> <p>Assess the potential for an integrated network of EV charge points. This would include encouraging the installation of EV charging points at motorway service</p>	<ol style="list-style-type: none"> <li>1. Carry out initial assessment of the EV requirements for the Borough.</li> <li>2. Instruct consultant on requirements baseline and create a brief to commission expert work.</li> <li>3. Create a business case for funding.</li> <li>4. Establish policy, processes and protocol for responding to requests for charge points and how they can be operated and maintained.</li> <li>5. Agreeing partnerships, income streams and service providers to ensure best uptake.</li> <li>6. Produce EV strategy report and present to senior leadership teams for approval.</li> </ol>	EV Strategy formation currently underway. Draft report to be complete August 2022.	Included in total	Short term Costs TBC	



		areas and at large fuel retailers.					
306	1.1.2	<p><b>Provide a uniform method of accessing public and private charge points</b></p> <p>Able to monitor power usage to ensure reliability. Opportunity for communication with users.</p>	<p>Set up the back office so that EV chargers are accessible and easy to use to encourage more people to use them. Provide accurate standardised public information on how to locate, use and pay for chargers in the Borough.</p>	<ol style="list-style-type: none"> <li>1. Investigate the types of back office payment systems used by the industry and assess the best option to be implemented at WBC.</li> <li>2. Harmonised EV related contracts such as electricity, maintenance, service and back office.</li> <li>3. Develop software for council to use when designing new projects and need this information.</li> </ol>	<p>Action completed. Documents available which provide this information (EV Charger selection guide and Highways Annex E). Access requires contacting the EV team for permission and a quick guide. This is needed rather than a public standalone document as it is updated regularly. Being standardised to VENDelectric.</p>	Included in total	<p>Short term</p> <p>Nil</p>
	1.1.3	<p><b>Review the residential charge point infrastructure for those who have communal parking facilities such as flatted developments.</b></p> <p>Opportunity for communication with non-EV users.</p>	<p>Currently, 27% residential buildings (approximately 12,000 households) do not have off-street parking and therefore direct access to safely charging an EV vehicle. This represents a barrier for these occupants to own an EV and so reduces the uptake of EVs in the Borough.</p>	<ol style="list-style-type: none"> <li>1. Implement a pilot of EV charging points in selected location, aim at installing 19 new charging points for residents with communal parking facilities.</li> <li>2. Based on the experience gained during stage 1, the council will seek to extend charging point facilities across the Borough.</li> </ol>	<p>A geospatial analysis was conducted to identify any existing and future demand for on-street charging. The analysis included residents requests, the results of our <a href="#">EV survey</a> that was conducted last year (24/03/2021 - 30/04/2021) and information about the proportion of streets with flats and terraced houses (which therefore lack off-street parking). A funding application is due to be re-submitted to the</p>	72 tCO <sub>2</sub> e	<p>Long term</p> <p>Costs TBC</p>

				<p>On-Street Residential Chargepoint Scheme following a change in the fund criteria.</p> <p>A pilot project has been completed at three council-owned car parks within the Borough. A new technology that combines park and charge payments is currently being tested in Carnival Pool, Dinton and Shute End. If successful, this will be expanded at other potential sites.</p>			
307	<p><b>1.1.4 Ensure that all EV charging points installed in the Borough are 'smart ready' to balance the electricity load demands on the grid.</b></p> <p>Able to monitor power usage to ensure reliability.</p>	<p>Ensure that charge points are smart ready by setting requirements prohibiting installation of charge points unless they meet certain load management specifications. Establish the parameters for the management of available energy in an area through methods like dynamic load balancing or local storage systems.</p> <p>This will ensure reliability of power supply in the system. Maintaining confidence in the network and increasing</p>	<ol style="list-style-type: none"> <li>1. Identification of dynamic load balancing or local storage systems that could be implemented in WBC.</li> <li>2. Engage with service providers about generic support for WBC EV chargers through standards such as OCCP.</li> <li>3. Analysis on current EV provisions and process in place.</li> <li>4. Assessing the potential implementation of fast charging at a premium</li> </ol>	<p>Action completed. Some sites have limited capacity so load balancing for multiple charging sessions are planned to be implemented.</p>	<p>Included in total</p>	<p>Medium term</p> <p>Nil</p>	

		the uptake of EVs. Overall carbon savings cannot be achieved without this.	rate to assist load balancing.				
308	1.1.5	<p><b>Support local businesses, including commercial property owners, to transition their commercial fleets to EV. Also to encourage employees to switch to EV for private use.</b></p> <p>Improved air quality, reduce NOx, PM10s, PM25, cheaper to maintain and run, better driving experience. Also supports more constant energy usage for overall lower emissions from production.</p>	<p>Consult with local businesses to understand needs, including taxi fleets, to develop the required charging infrastructure to support the uptake of EVs. Support the transition of 20% vehicles used for commercial purposes to ultra-low or electric. This includes applying for grants and funding for purchase and installation cost, etc. Guide and advice local businesses about the benefits of transitioning to EVs.</p>	<ol style="list-style-type: none"> <li>1. Engage local business with Workplace Charging Scheme.</li> <li>2. Provide information on salary sacrifice schemes to support employees to transition to EV</li> <li>3. Assess opportunities to support the development of plug-in taxi programs within the Borough, considering the requirements for charge points.</li> <li>4. Promote the benefits of EVs and electric transport overall through the climate conversation series and newsletters.</li> </ol>	<p>Awaiting full confirmation from EV Strategy.</p> <p>Following council adoption of a Liftshare scheme, this commuting assessment process is hoped to be made available to local businesses at a discounted rate, starting with Thames Valley Pilot as above.</p> <p>A few businesses have also been contacted specifically following low carbon workspace grants and the benefits and viability of EVs highlighted.</p>	1,834 tCO <sub>2</sub> e	<p>Medium term</p> <p>Nil</p>
	1.1.6	<p><b>Promote uptake of EVs with our residents through engagement</b></p> <p>Improved air quality, reduce NOx, PM10s, PM25, cheaper to maintain and run,</p>	<p>Support and educate our residents about the benefits of transitioning to EVs. Make available information that will support residents in taking the decision to transition to EVs, including government schemes that will support residents in the</p>	<ol style="list-style-type: none"> <li>1. Deliver a sustained campaign to inspire residents to 'Go Ultra Low' and transition to EVs.</li> </ol>	Not started	Included in total	<p>Medium term</p> <p>Nil</p>



	<p>better driving experience. Also supports more constant energy usage for overall lower emissions from production.</p>	<p>installation of EV charging points.</p> <p>60% of residential buildings have parking facilities.</p>					
309 1.1.7	<p><b>Coordinate the installation of EV charging points into both council buildings and private or commercially owned land, in line with the EV network plan approved in the strategy.</b></p> <p>Improved air quality, reduce NOx, PM10s, PM25, cheaper to maintain and run, better driving experience. Also supports more constant energy usage for overall lower emissions from production.</p>	<p>EV network plan will have standardised EV charging point requirements to make charging easy to access.</p> <p>To support this ensure all council-owned assets comply with the standard. This includes locations such as libraries, leisure centres, parks, etc.</p> <p>Investigate the requirements to install EV charge points to commercial property such as business parks, shopping centres, etc.</p>	<ol style="list-style-type: none"> <li>1. Explore potential locations for charging points.</li> <li>2. Align the EVs installation requirements to the building retrofitting programs.</li> <li>3. Potential pilot with flow-bird where they can pay for parking and charging at the same time. Requires integration into ticketing machine infrastructure with single operator rather than different back offices.</li> <li>4. Targets for charger installation will be included in the EV Strategy</li> </ol>	<p>EV standards from highways design guide is being used. Feasibility study on additional car parks underway. Ongoing process of exploring new options for charging point. Checklist developed to help project managers identify needs and types of chargers based on needs of users and other restrictions.</p> <p>230 active sockets installed, with a further 190 planned. This means 1,099 tCO<sub>2</sub>e savings have been identified.</p>	Included in total	Medium term Costs TBC	
1.2	<b>5% From Reduced Travel (Removing Journeys)</b>				6,811 tCO <sub>2</sub> e	TBC	

310	<p><b>1.2.1</b></p> <p><b>Engage businesses to promote home and remote working when possible.</b></p> <p>People are more likely to stay around their home areas in general, shopping locally etc, following Covid.</p> <p>Increased time freedom due to lack of commute also increases adoption of active/sustainable transport methods.</p>	<p>Capitalise on the unintended consequences of the national lockdown by engaging with businesses to understand their working practices and encourage them to consider the new ways of working in their recovery plans to overall reduce the CO2 emissions caused by travel from workers of local businesses by 30% by 2022.</p>	<ol style="list-style-type: none"> <li>1. Engage businesses through a survey to assess their working practices during the national lockdown and encourage new ways of working as part of their recovery plans.</li> <li>2. Deliver a communications campaign to encourage local business to learn from COVID-19 unintended consequences.</li> </ol>	<p>Data collected from homeworking questions in wider COVID survey. To inform later comms encouraging greater home and remote working opportunities.</p>	<p>4,183 tCO<sub>2</sub>e</p>	<p>Short term</p> <p>Nil</p>
	<p><b>1.2.2</b></p> <p><b>Promote Liftsharing schemes / opportunities through My Journey to help individuals and businesses develop bespoke travel policies.</b></p> <p>Opportunities for cost savings for users compared to personal car usage.</p>	<p>Reduce transport related CO2e emissions, reduce congestion, improved road safety and air quality by promoting Liftsharing, which helps companies assess staff travel patterns to promote car sharing. To achieve a 10% reduction in the number of single occupancy car trips to and from businesses by March 2022.</p>	<ol style="list-style-type: none"> <li>1. Produce and submit proposal Procurement process.</li> <li>2. Launch Liftshare scheme</li> <li>3. Map commuter trips across the Borough and provide access to live data on how many miles/CO2 can be saved by people lift sharing across the Borough and for each individual business.</li> </ol>	<p>Multiple liftshare providers have been consulted and procurement process to begin to deliver this. Following council adoption of a Liftshare scheme, this commuting assessment process is hoped to be made available to local businesses at a discounted rate. - Thames Valley Park 2 years Trial – could be funded by them – to be followed by other business parks (Winnersh)</p>	<p>1,394 tCO<sub>2</sub>e</p>	<p>Short term</p> <p>£30,000</p>

			<ol style="list-style-type: none"> <li>4. Set up CO2 emissions targets for local businesses.</li> <li>5. Deliver a communications campaign to promote active and sustainable travel modes through competitions.</li> </ol>	<p>This will deliver data on how and where people are travelling, which will support wider sustainable transport actions.</p>			
<b>1.3</b>	<b>2% From Public Transport Increase</b>				<b>2,725 tCO<sub>2</sub>e</b>	<b>TBC</b>	
<b>311</b> <b>1.3.1</b>	<p><b>Produce bus service improvement plan.</b></p> <p>Setting the policy framework for bus services to recover from Covid and for establishing longer-term growth.</p> <p>Allows access to funding - COVID-19 Bus Services Support Grant (CBSSG) or any new sources.</p>	<p>Gap analysis SWOT analysis, produce policies of what will need to be improved. Enhance partnership - vision, plan, setting the policy framework and establishing targets for bus passenger growth within the borough. The plan aims to boost passenger numbers to 3 million following a recent decline from 2.8 million before the covid-19 outbreak to 1.8 million, or roughly 65 per cent of pre-pandemic levels.</p>	<ol style="list-style-type: none"> <li>1. Engagement and consultation local bus operators, internal stakeholders.</li> <li>2. Engagement with consultants to produce reports.</li> <li>3. Converting these reports into combined strategy.</li> <li>4. Setting the policy framework for bus services to recover from Covid and for establishing longer-term growth.</li> <li>5. Publishing the bus service improvement plan.</li> </ol>	<p>Complete – Published 31<sup>st</sup> Oct</p>	Included in total	Short term £27,500	
<b>1.3.2</b>	<p><b>Establish an enhanced partnership with contractors.</b></p>	<p>Make a legally binding document with bus operators - define levels of service and provision of infrastructure in relation to the schemes</p>	<ol style="list-style-type: none"> <li>1. Have an Enhanced Partnership in Place by June 2022</li> </ol>	<p>Draft agreed for this and will begin ASAP following elections. To include variation clauses for: more frequent and more reliable bus services,</p>	Included in total	Short term Costs TBC	



	Allows access to transformational funding.	Identifying key corridors and setting frequency of bus service - set up bus priority and how to improve journey times		better access in rural areas, more attractive fares for young people, better marketing and improving buses themselves.			
312	<b>1.3.3</b> <b>Support electrification of local buses.</b> Improved air quality along key urban routes and inspiration of possibilities.	Zero emission bus regional areas (ZEBRA) Route 21 - Lower Early - Reading University - Reading Town Centre  Depending on Reading buses having the required funding for fleet renewal Gov will fund 75% and LA need to fund the rest	<ol style="list-style-type: none"> <li>1. Identification of the route/buses/ specifications</li> <li>2. Applying and achieve funding for Zero emission bus regional areas (ZEBRA) Trunch 1. 2021 May 2021 Trunch 2. September 2021</li> <li>3. This will be included in the BSIP</li> </ol>	2 <sup>nd</sup> bid submitted as part of BSIP, particularly for urban routes including Lower Early as strong feasibility due to shorter route, but unsuccessful.  This will be revisited if suitable funding opportunity arises.	Included in total	Medium term  Included in £34m bid.	
	<b>1.3.4</b> <b>Improve the bus public transport network for Wokingham Town.</b> This presents the opportunity to synchronise timetables.	Identifying the key transport needs for the public travelling between Wokingham and surrounding areas: Wokingham Town, Finchampstead, Winnersh, Twyford, and Woodley to decrease the number of people arriving in personal vehicles at public transport interchanges (rail stations & P&R sites) by 5% by March 2022.	<ol style="list-style-type: none"> <li>1. Launch public consultation.</li> <li>2. LCTS consultation</li> <li>3. Re-tender the public transport contract to procure an improved contract</li> <li>4. This will be included in the BSIP</li> </ol>	Network review by end of Sept 2022, as requested by DfT, with contracts extended until this point.	Included in total	Short term  Costs TBC	
	<b>1.3.5</b> <b>Bus Stop Infrastructure Works to Support North</b>	Public Transport infrastructure enhancement includes more shelter from	<ol style="list-style-type: none"> <li>1. Create a bus strategy for North Arborfield</li> </ol>	The strategy has been published and an		Medium Term	

	<p><b>Arborfield SDL Bus Strategy.</b></p> <p>This will connect people to jobs, study and local services, allowing people who are old, young, disabled and isolated to commute and helping reduce traffic jams.</p>	<p>poor weather, more seating capacity and real time information displays to encourage more residents to use the bus network.</p>	<ol style="list-style-type: none"> <li>2. Develop and agree an implementation plan</li> <li>3. Start works on site.</li> </ol>	<p>implementation plan agreed.</p> <p>This has been assessed as part of an ongoing Enhanced Partnership agreement process, with new bus stops added and routes amended as part of wider works.</p>	<p>Included in total</p>	<p>£54,000</p>
<p>313</p> <p>1.3.6</p>	<p><b>Increase peak-hour bus transport for Lower Earley.</b></p> <p>This will connect people to jobs, study and local services, allowing people who are old, young, disabled and isolated to commute and helping reduce traffic jams.</p>	<p>Increase the capacity of bus transport between Lower Earley and Reading as surveys suggest morning services are at capacity and leaving passengers at stops. 5% decrease in the number of people arriving in single occupancy vehicles at public transport interchanges (rail stations &amp; P&amp;R sites) by March 2022.</p>	<ol style="list-style-type: none"> <li>1. Review contract with Reading buses</li> <li>2. Identify capacity requirements</li> <li>3. Bid for funding</li> <li>4. Deliver increased capacity in the short term</li> <li>5. Re-assess requirements post covid and home-working</li> </ol>	<p>Additional capacity has been delivered on a short-term basis - Achieved with extra vehicles thanks to DfE funds during covid.</p> <p>Currently the route is still operating with capacity, so there is not a case for increasing the resource, though it is being monitored regularly.</p>	<p>Included in total</p>	<p>Short term</p> <p>Nil</p>
<p>1.3.7</p>	<p><b>Implement the South of M4 bus strategy.</b></p> <p>This will connect people to jobs, study and local services, allowing people who are old, young,</p>	<p>Increasing the frequency of the Leopard Bus services, serving the South of M4 SDL to increase the number of residents using this by 5%.</p>	<ol style="list-style-type: none"> <li>1. Launch public consultation to understand demand for travel</li> <li>2. Deliver increased frequency of services</li> </ol>	<p>Completed. This will be reviewed as part of an ongoing Enhanced Partnership agreement process for new pattern of service, dependent on the joint review with Reading Borough - collaborating on</p>	<p>Included in total</p>	<p>Short term</p> <p>£480,000</p>

	disabled and isolated to commute and helping reduce traffic jams.		3. Review capacity requirements under covid changes. This will be included in the BSIP	this project towards shared goals.			
1.3.8 314	<p><b>Investigate demand services opportunities and on-demand flexi-routes.</b></p> <p>This will connect people to jobs, study and local services, allowing people who are old, young, disabled and isolated to commute and helping reduce traffic jams.</p>	<p>Improve access to rural areas by implementing an uber style public transport service for people living in remote locations where a full service would be unviable but still help reduce car usage. Leading to a 5% increase in the number of trips from our public transport interchanges by bus and rail by March 2022.</p>	<ol style="list-style-type: none"> <li>1. Twyford is being considered under the rural mobility fund bid as a pilot area.</li> <li>2. Investigate ARRIVA Click success.</li> <li>3. Submit bid for extra funding in this area</li> <li>4. This will be included in the BSIP as a longer-term aspiration for improvement to rural transport and early morning / late evening transport.</li> </ol>	<p>A bid has been submitted to DfT as part of BSIP but unsuccessful.</p> <p>Under consultation to explore DRT further.</p>	Included in total	Short term  Included in £34m bid.	
1.3.9	<p><b>Home to school transport project.</b></p> <p>Potential to deliver costs savings and reduce wait/travel times for users.</p>	<p>Re-optimising the routes and capacity for school buses by re-tendering the contracts.</p> <p>Also re-optimising the wider taxi collection scheme to minibuses and sharing more.</p>	<ol style="list-style-type: none"> <li>1. Calculate the optimal route plans</li> <li>2. Calculate the estimated carbon savings</li> <li>3. Re-tender contracts</li> <li>4. Collate the details on the current taxi scheme</li> <li>5. Identify opportunities for sharing or minibus routes</li> <li>6. Modify plans as needed to ensure 100% coverage</li> </ol>	Completed - The school bus contracts have been re-tendered with the switch happening on the 06/09/21, with ongoing monitoring.	2.55 tCO <sub>2</sub> e	Short term  Nil	



			7. Monitor progress to identify savings				
<b>1.4</b>	<b>10% From Active Transport Increase</b>				<b>13,623 tCO<sub>2</sub>e</b>	<b>TBC</b>	
<b>3.14.1</b>	<p><b>To provide more primary school children with the opportunity to develop practical skills and an understanding of how to cycle safely.</b></p> <p>Will be more likely to choose cycling over cars as adults, health benefits from exercise. Increased time freedom due to lack of commute also increases adoption of active transport methods. People have embraced local green spaces.</p>	<p>Offer bikeability training up to level 3 to more primary school children in Wokingham Borough to improve cycling skills amongst children and improve air quality by substituting cycling for car journeys. Achieve a 5% reduction in the number of children being driven to Wokingham Borough schools by March 2023.</p>	<ol style="list-style-type: none"> <li>1. Compile and deliver an annual events programme for Bikeability courses.</li> <li>2. Monitor impact of programme on take up of cycling to school.</li> </ol>	<p>Courses still underway. Project fully funded with a total of 2,373 children trained to date.</p> <p>Larger Bikeability grant obtained for 2022- 2023 to enable us to train up to 1,800 children on Bikeability courses.</p> <p>372 children completing Learn to Ride courses, with 273 successfully riding after 1-2 sessions.</p>	<p>353 tCO<sub>2</sub>e</p> <p>(Included in total)</p>	<p>Short term</p> <p>£122,512 + £83,332 for 2022/23</p>	
	<b>1.4.2</b>	<p><b>Encourage and support local schools to join Modeshift Awards scheme for</b></p>	<p>Create a culture of active travel amongst school children, having a direct impact on air quality, carbon savings and helps improve</p>	<ol style="list-style-type: none"> <li>1. 10 schools targeted within the Wokingham Town, Finchampstead and Twyford areas (AQMA), to achieve</li> </ol>	<p>Ongoing work with schools via certification and competitions.</p>	<p>137 tCO<sub>2</sub>e</p>	<p>Medium Term</p> <p>£190,101</p>

316	<p><b>active and sustainable travel.</b></p> <p>Will be more likely to choose active transport over cars as adults, health benefits from exercise. People have embraced local green spaces. Increased time freedom due to lack of commute also increases adoption of active transport methods.</p>	<p>student health and concentration levels.</p> <p>Leading to a 10% reduction in the number of children being driven to school by March 2026.</p>	<p>Modeshift STARs accreditation at bronze, silver, gold or platinum level, as appropriate for the school, supported by active travel officers.</p> <p>2. Promote the following campaigns in schools in the AQMA area: a car free day, an anti-idling campaign, national clean air day campaign, and Beat the Street.</p>	<p>Two more schools accredited, with another two submissions. 12 schools actively engaged with, and an additional 10 schools with air quality focus and monitoring equipment. Evendons School achieved platinum level, one of only 8 schools in the country and winning regional school travel awards.</p> <p>21 schools signed up to the Big Walk and Wheel, with Wescott and Windmill schools scoring in the top 50 schools nationwide. Upcoming similar Walk to School Week campaign with 32 signed up.</p>	(Included in total)		
1.4.3	<p><b>Roll out the Healthy School Streets programme.</b></p> <p>Will be more likely to choose active transport over cars as adults, health benefits from exercise. People have embraced local green spaces.</p>	<p>Trial programme at school streets to tackle congestion, road safety and air quality by restricting motor traffic at the school gates for a short period of time, generally at drop-off and pick-up times. This will make it more difficult to drive to the school for the school run, resulting in a reduction in students being driven to school.</p>	<ol style="list-style-type: none"> <li>1. Design how the scheme will work.</li> <li>2. Assess potential schools and create tender opportunity.</li> <li>3. Select a school to pilot scheme.</li> <li>4. Review the results of the pilot.</li> <li>5. Role out scheme more widely.</li> </ol>	<p>Process for suitable pilot site under assessment.</p>	Included in total	Long term £10,000	

		Leading to a 10% reduction in the number of children being driven to school by March 2026.					
1.4.4	<p><b>Increase the uptake of cycling from local business by promoting the Love to Ride programme.</b></p> <p>Health benefits from exercise and increased time freedom due to lack of commute also increases adoption of active transport methods. People have embraced local green spaces.</p>	Encourages people to choose cycling as their main mode for essential travel and as a fun, enjoyable form of daily exercise. Aiming to reduce the CO2 emissions from employees of local businesses travelling to work by 10% by 2025.	<ol style="list-style-type: none"> <li>1. Ride anywhere week campaign - 23 - 27 March 2020</li> <li>2. Run 4 campaigns per year to promote cycling to work</li> <li>3. Work in partnership with local businesses to promote active travel breakfast</li> </ol>	<p>Full audit of Love to Ride underway.</p> <p>Aiming for 100 active companies and 2-3000 participants per campaign, including push for WBC employees.</p>	1,240 tCO <sub>2</sub> e  (Included in total)	Medium term  £50,000	
1.4.5	<p><b>Develop the Local Cycling and Walking Infrastructure Plan (LCWIP) to be Borough wide and implement 50% LCWIP by 2030.</b></p> <p>Health benefits from exercise and increased time freedom due to lack</p>	<p>Create a comprehensive network of walking/cycling routes across the Borough which are joined up, based on evidence and data from the LCWIP process.</p> <p>Aiming to increase cycling modal share by 4% and walking modal share by 5%.</p>	<ol style="list-style-type: none"> <li>1. Completion of LCWIP studies across the borough from 2021 to 2025.</li> <li>2. Implementation of measures from the reports ongoing to 2030.</li> </ol>	<p>Borough wide LCWIP Study assessments for primary routes completed with consultant.</p> <p>Public consultation on LCWIP routes and infrastructure ideas is expected in July 2022.</p> <p>Consultation for Woodley / Reading Active Travel Route</p>	12,447 tCO <sub>2</sub> e  (Included in total)	Long term  £38m (£5m for report)	

318	<p>of commute also increases adoption of active transport methods. People have embraced local green spaces.</p>			<p>complete and redesign of some sections underway in response. A 3<sup>rd</sup> public consultation on the revised design proposals will be undertaken in Summer 2022.</p> <p>£2.95m grant received from DfT for the continuation of Woodley / Reading Active Travel Route.</p> <p>Design proposals for the A329 Reading Road cycle scheme between Aspen Place and Winnersh Relief Road Roundabouts are under development.</p>			
1.4.6	<p><b>Deliver engagement and cycle training events across the Borough.</b></p> <p>Health benefits from exercise and increased time freedom due to lack of commute also increases adoption of active transport methods. People have</p>	<p>Deliver cycling training events at bike hubs, Dr Bike checks, puncture repair classes, smoothie bike, cycling skills and bike obstacle course, cycle maintenance courses, Breeze rides for beginner ladies, Bike Bonanza and Bikeability training levels 1-3. This increases confidence, road safety awareness and skill level on bikes to achieve a 2%</p>	<ol style="list-style-type: none"> <li>1. Deliver events for Montague Park and a new one in Shinfield as planned in the Events Programme 2020 – 2021.</li> <li>2. Deliver Wokingham Bikeathon as planned in the Events Programme.</li> <li>3. Deliver Bike Hub community events for Woodley, FBC, Montague Park and Shinfield as</li> </ol>	<p>Events ongoing dependent on covid regulations.</p> <p>Bike Bonanza held in April 2022 with partners and delivering training.</p> <p>Annual Wokingham Bikeathon and E-bike event with WTC June 2022</p> <p>Bike Hub events to go ahead as planned.</p>	<p>212 tCO<sub>2</sub>e (Included in total)</p>	<p>Short term</p> <p>£7,000</p>	



	embraced local green spaces.	increase in residents regularly cycling for leisure and utility by March 2022.  Engage residents with active travel schemes by providing discounts for bikes & accessories.	planned in the Events Programme 2020 – 2021.	Road safety shows run every year in primary schools.			
1.4.7 319	<b>Adult cycle training.</b>  Health benefits from exercise and increased time freedom due to lack of commute also increases adoption of active transport methods. People have embraced local green spaces.	Shine over 60s cycling program, focus on encouraging outdoor cycling for people over 60 for travel, leading to a 3% reduction in car use by residents over 60.	1. Deliver SHINE rides events as planned in the Events Programme 2020 - 2021	Began end of April 2022 and going out to businesses as well as over 60s.	1,633 tCO <sub>2</sub> e  (Included in total)	Short term  £1,500	
1.4.8	<b>Completion of the Cross Berkshire Cycle Route – NCN 422.</b>  Health benefits from exercise and increased time freedom due to lack of commute also increases adoption of active transport methods. People have	Creation of a new national cycle route between Newbury and Windsor (approx. 30 miles), including a section within Reading, Wokingham Borough, West Berkshire, Bracknell Forest and Windsor & Maidenhead, and it is included within the Thames Valley Berkshire Local Growth Deal. This will encourage more residents to	1. Completion of route across Wokingham with a combination of shared use and on-carriageway cycle lanes on the A329.	Completed. Note that this route was constructed to previous design standards and in the longer term will need to be upgraded to align with LTN 1/20.	Included in total	Short term  £1m	

	embraced local green spaces.	cycle by connecting people with key destinations.					
1.4.9	<p><b>South Wokingham Railway Crossings (Foot and cycle).</b></p> <p>Health benefits from exercise and increased time freedom due to lack of commute also increases adoption of active transport methods. People have embraced local green spaces.</p>	Improved walking and cycling infrastructure will encourage residents to mode shift.	1. Feasibility study on Carnival pool crossing with Network Rail.	Feasibility study on Carnival pool crossing with Network Rail – Engaged WSP to design replacement bridges	Included in total	Short term Costs TBC	
320							
1.4.10	<p><b>Promote active and sustainable travel modes amongst new residents in new developments.</b></p> <p>Health benefits from exercise and increased time freedom due to lack of commute also increases adoption of active transport methods. People have</p>	Inform new residents of alternatives to single occupancy car use, promoting the wider benefits of active and sustainable travel, while providing a local context. Welcome packs are provided with offers for sustainable travel, like bus taster tickets and cycle shop discounts, as well as localised cycle, bus maps and SANG walks.	1. Welcome pack for Deer Leap Park and Orchard Rise in the Spencerswood, Arborfield and Wokingham areas.	Dear Leap Park and Orchard rise welcome packs delivered and sites now complete. Packs also delivered to the numerous developers in Shinfield Arborfield and Wokingham areas and ongoing.	Included in total	Medium term £3,000	

	embraced local green spaces.	Aiming to achieve 25% of new residents travelling sustainably on a daily basis across the Strategic Development Locations each year by 2026.					
1.4.11 321	<p><b>Provide personalised travel planning to new residents.</b></p> <p>Health benefits from exercise and increased time freedom due to lack of commute also increases adoption of active transport methods. People have embraced local green spaces.</p>	All residents in new developments are offered transport advice about alternative modes of travel, including free testing ticket and tailored travel packages. Aiming to achieve 25% of new residents travelling sustainably on a daily basis across the Strategic Development Locations each year by 2026.	1. Personalise travel planning to new residents in Shinfield development.	Planning underway for two rounds of PTP in financial year 2022/23.	Included in total	Medium term £50,000	
2	<b>Reduced Road Freight</b>				<b>23,241 tCO<sub>2</sub>e</b>	<b>TBC</b>	
2.1	<p><b>Develop a domestic and industrial freight management policy alongside LTP4.</b></p> <p>Reduces operational costs for firms and storage energy usage</p>	To develop a borough wide traffic distribution hierarchy to understand traffic capacity, and traffic carrying routes. Improving operational logistics could reduce the number of 'empty runs' and consequently the number of trucks on the	<ol style="list-style-type: none"> <li>1. Data gathering and assessment.</li> <li>2. Creating an accurate baseline.</li> <li>3. Develop route hierarchy.</li> <li>4. Incorporate the first draft freight management policy into LTP.</li> </ol>	Not Started		Short term Costs TBC	

	as more efficient supply chain.	road, leading to a 22% decrease in distance travelled by road freight.  The framework will support decision making on the traffic distribution, based on air quality, carbon emissions and energy savings.	5. Carry out a study to assess transport movements in Twyford in particular routes. Specifically for lorries and heavy-duty vehicles. This will be delivered through freight management work.		23,241 tCO <sub>2</sub> e		
2.2 322	<b>Support the transition of business vans to cargo bikes.</b>  Improved air quality, cheaper to maintain. Sets the example by leading the way. Opportunity for communication with non-EV private users.	Establishing a short-term business grant fund for businesses to apply for funds to switch their large vans to smaller petrol or EV cargo bikes.	<ol style="list-style-type: none"> <li>1. Feasibility study to understand viability.</li> <li>2. Secure funding from the capability fund.</li> <li>3. Set up the business grant.</li> <li>4. Monitor applications and results.</li> </ol>	Feasibility study complete and funding secured. Setting up process underway.	Included in total	Short term £20,000	



## Renewable Energy Generation

### Annual Carbon Savings: 41,391 tCO<sub>2</sub>e

Emissions from fossil fuel burning to supply electricity remains a significant contributor to the borough's emissions, as the majority is provided via the national grid and hence emissions are calculated based on the current composition of energy providers which feed in to this. Therefore, by generating our own renewable energy through large schemes such as solar farms, this can be fed back into the grid and reduce the overall requirement and composition of fossil fuel provision.

Hence, this is how the carbon savings are calculated, by identifying how much the MWh the renewable generation in our borough will reduce the need for such alternatives in the national grid system. This is the simplest approach in terms of legislative purposes and provides significant benefits in terms of economic opportunities and more green employment and skills opportunities in the local labour market.

Over the last year, Wokingham Borough Council has established the complex supporting planning and procurement necessary to deliver the significant projects that will increase the generation of renewable energy across the Borough. Currently the timeline of planning indicates approximately 55,000 MWh of capacity from solar farms alone will be installed by 2030 across 2-3 sites, though further such sites are still planned to go ahead post 2030. For the delivery of the first solar farm, the council has worked closely with SSE, DBO, the farmers, specialist consultants and the local community.

Smaller schemes installed directly by households, businesses and in some cases, whole communities, can also contribute to these savings more directly, supplying the power used by the property owners and hence reducing the overall demand on power from the fossil fuel dominated grid. Calculations for savings remain similar though, based on replacing electricity generation from burning fossil fuels with a no carbon alternative.

Renewable energy though relates to all forms not just solar, with this included in existing support schemes and further targets in future iterations to address these sections more directly. This includes the continued installation of renewable energy systems in public buildings.

### Key Achievements this year:

- The generation of 42,572.84 MWh renewable electricity in the last recorded year (2020), saved the borough 10,881.62 tCO<sub>2</sub>e.
- Key milestones in progressing Barkham Solar Farm have been achieved including planning being granted, grid application submitted and public consultation complete.
- Partnered with Reading and Energy4All to assess viability of a number of potential buildings, under the community energy fund.

### Consumption Emissions:

- Total life cycle GHG emissions from solar PV systems are similar to other renewables and nuclear energy, and much lower than coal. Therefore none applying to households.

### Action Changes:

- Council specific actions moved to relevant section at the end of the plan.

### SDGs:



REF	Action / Co - Benefits	Description / Outcomes	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
3.1	<b>Increase the generation of renewable energy through investment in solar farms to generate 55,000 MWh</b>				<b>14,058 tCO<sub>2</sub>e</b>	<b>£50M</b>	
3.1	<p><b>Deliver the installation of a solar farm in Barkham with the capacity to generate in excess of 29 MWp of energy.</b></p> <p>Planning status of the land would remain unchanged with it reverting back to farmland after the solar farm reaches the end of its lifespan. Generation of green energy locally. 15,000 new trees on the farmland will be planted. New route for walkers, cyclists and horse-riders are being considered.</p>	<p>Installation of a large-scale solar farm on council owned land will allow the council to offset its carbon emissions from electricity and gas usage and possibly 'retail' any excess.</p> <p>Large scale solar farm installed in Barkham with the potential of generating 29 MWp output achieving 28,563,000 kWh's per annum by 2023.</p> <p>Potential to supply 8,000 homes.</p>	<ol style="list-style-type: none"> <li>Asset review board to the potential sites - consultant briefing for review of master planning of specific sites - With WSP for land planning now.</li> <li>Options appraisal - commission specifications of the project to procurement team</li> <li>Site tenant notice - one year notice</li> <li>Initial procurements process - identify the contractor - framework and due diligence process - 6 months</li> <li>Planning application - full application submission</li> <li>Consultation with local residents.</li> <li>Project delivery - Construction of solar farm - Project management</li> <li>Start operation.</li> </ol>	<p>Potential sites reviewed. Options appraisal completed. Site tenants provided notice. Procurement process underway and planning application completed. Grid application submitted – expected circa £6m.</p> <p>Consultation processes with local residents is complete. Start operation expected by December 2023.</p>	7,412 tCO <sub>2</sub> e	<p>Short term</p> <p>£25M</p>	

REF	Action / Co - Benefits	Description / Outcomes	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
3251.2	<p><b>Deliver the installation of a solar farm in Site 2 with the capacity to generate in excess of 26 MWh of energy. This will be reviewed case by case depending on surveys and other considerations.</b></p> <p>Generation of green energy locally and direct way to reduce carbon emissions. Surplus power is feed to the mains grid thereby distributing clean energy locally. Planning status of the land would remain unchanged with it reverting back to farmland after the solar farm reaches the end of its lifespan.</p>	<p>Installation of a large scale solar farm on council owned land will allow the council to offset its carbon emissions from electricity and gas usage and possibly 'retail' any excess.</p> <p>Installation of solar farm in Site 2 with the potential of generating 20+ MWh generation by 2025. Potential to feed 5,000 homes.</p>	<ol style="list-style-type: none"> <li>1. Asset review board to the potential sites - consultant briefing for review of master planning of specific sites</li> <li>2. Options appraisal - commission specifications of the project to procurement team</li> <li>3. Site tenant notice - one year notice</li> <li>4. Initial procurements process - identify the contractor - framework and due diligence process - 6 months</li> <li>5. Planning application - full application submission</li> <li>6. Consultation processes with local residents</li> <li>7. Project delivery - Construction of solar farm - Project management</li> <li>8. Start operation.</li> </ol>	Consultation process underway following desktop analysis.	6,646 tCO <sub>2</sub> e	Medium term £25M	

REF	Action / Co - Benefits	Description / Outcomes	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
3.2	<b>Support the generation of renewable energy in the Borough to generate the equivalent of approx. 1550 kWh per household</b>				<b>27,333 tCO<sub>2</sub>e</b>	<b>TBC</b>	
320.1	<p><b>Set up a Community Energy Fund for Wokingham (WEC)</b></p> <p>Enable residents and the community to become investors in renewable energy installations. Facilitate access to external funding to cover the cost of renewable energy installations across the Borough. Projects can be wholly owned by the community. Support the creation of new green jobs in the area. Help to increase the premium of renewable energy technologies by increasing uptake.</p>	<p>A Community Energy Fund will help accelerate the uptake of renewable energy generation within the Borough. It will allow the council to engage with the community in the journey to net-zero carbon. The WCEF funds renewable energy installations through local shares from the community, enabling individuals and local organisations to support and benefit from the scheme.</p> <p>The scheme aims to generate an average of 27,000 kWh/year of renewable energy from the installation of small-scale PV systems funded through this scheme.</p>	<ol style="list-style-type: none"> <li>1. The scheme was approved by the council in January 2021.</li> <li>2. WBC will partner with Wokingham Energy Community (WEC) and will put forward potential buildings that could be considered for the scheme. These will include schools without solar PV, Young and Community Centres, etc.</li> <li>3. Next steps with key stakeholders to set up the shares value and future delivery of the scheme</li> <li>4. An annual report will be provided by WEC and Energy4all one year after it has been launched</li> </ol>	<p>The scheme was approved by the council in January 2021.</p> <p>Partnered with Reading and Energy4All to assess viability of a number of potential buildings.</p> <p>Community led initiative being loosely supported by council officers.</p> <p>The scheme will be fully launched by summer 2023.</p>	7 tCO <sub>2</sub> e	<p>Short term</p> <p>Nil</p>	

REF	Action / Co - Benefits	Description / Outcomes	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
3.2.2 327	<p><b>Support residents and local businesses to reduce their energy usage and carbon emissions and increase the uptake of green energy.</b></p> <p>Wider uptake of green energy will reduce the green premiums and allow more people to access cheaper green energy tariffs</p>	<p>Develop a comprehensive service to residents and local businesses, offering green energy provision, as well as energy efficiency measures, consultancy, and advice</p> <p>Provide a scheme which allows for Public and businesses to 'buy' Green electricity / Gas through WBC (referral).</p>	<ol style="list-style-type: none"> <li>1. Feasibility assessment for the council to commence a 'Green label' energy procurement initiative for council properties.</li> <li>2. Development of the scheme, initial conversations with potential partners.</li> <li>3. Scheme approval by Executive and launched.</li> <li>4. Provide advice to residents on energy efficiency measures.</li> </ol>	<p>2. Development of scheme to make green electricity available for public to directly buy not started.</p> <p>4. Providing advice to residents where possible on switching to green suppliers and improving energy efficiency, connecting them with services such as the Green homes and Sustainable homes grants. Also directly responding to residents enquiries, often raised from discussion with other services.</p>	9,585 tCO <sub>2</sub> e	<p>Long term</p> <p>Costs TBC</p>	
3.2.3	<p><b>Support the delivery of smart grid technologies.</b></p> <p>Digital infrastructure</p>	<p>A modernise energy service through smart grid technologies and digital infrastructure will provide more accurate information about</p>	<ol style="list-style-type: none"> <li>1. Work in collaboration with ADEPT, UoR and the LEP to deliver initial research on test different control strategies / interventions.</li> </ol>	Not Started	Included in total	<p>Medium term</p> <p>Nil</p>	



REF	Action / Co - Benefits	Description / Outcomes	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
	enable consumers to access innovative solutions such as smart tariffs. These tariffs reward consumers financially for using less electricity at peak times of demand or using more when overall demand is low and there is surplus generation available.	<p>energy consumption and costs, so consumers can easily understand how to save money on their bills.</p> <p>The project aims to monitor the benefits of energy management trials, implemented by Smarter Grid Solutions, and to advise on future upscaling potential.</p>					

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## Retrofitting Domestic and Commercial

**Annual Carbon Savings: 71,001 tCO<sub>2</sub>e**

While energy supply elements are primarily targeted above, reducing the demand for such is also vital in minimising overall emissions. The government also recognise this as a key area to address, so targets are aligned to such where possible, now being measured primarily via the EPC ratings of all properties. This still represents energy reduction as higher scores represents greater energy efficiency, hence are calculated as such.

Key measures include encouraging awareness of the potential energy saving measures available to domestic and commercial property owners, looking to support them throughout the process of identifying opportunities and installing them. By doing so, significant savings can be achieved in both energy bills and carbon emissions, particularly for buildings with currently low energy efficiency ratings.

Indeed, while current targets are primarily focused on domestic aspects, the council are keen to work with local businesses to also improve commercial properties, to deliver similar benefits here. This is again in line with government aspirations directly on this aspect, with new targets to outline such to be in future iterations once clarified by officials. However, this may already be included within target 3.2 above and so new actions will be incorporated the correct section when clear.

This work will involve working with many partners, such as alongside the Energy Company Obligation (ECO) and Green Homes Grant schemes.

Council owned properties are of course included in this aim, with social housing included in this section, though offices and leisure centres etc are in the council section at the end of the plan as this relates directly to council energy use, as defined by the GHG accounting tool.

Alternative fuels and direct emissions from 'industry' are recognised to not be addressed directly through these measurements, hence they will be analysed more over the coming year to identify new targets for these specific sections.

### Key Achievements this year:

- Retrofitting works so far have cumulatively contributed towards savings of 741.89 tCO<sub>2</sub>e.
- Feasibility assessment on Woodley Library pilot completed.
- Street lighting efficiency has contributed savings of 163 tCO<sub>2</sub>e.
- Over 1500 households getting assistance so far from help to heat.
- Pilot Project Completed in Riseley, raising a house from SAP D to B

### Consumption Emissions:

- Total life cycle GHG emissions from solar PV systems are similar to other renewables and nuclear energy, and much lower than coal. Therefore, none applying to households.

### Action Changes:

- Action 4.4.3 Added to incorporate the support of housing associations into the retrofitting process.
- Previous Action 32.2, the Gorse Ride regeneration project, has been separated into its own action 4.1.1
- Council specific actions moved to relevant section at the end of the plan.

### SDGs:



REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
4.1	<b>Implement a Passivhaus housing scheme for 255 council homes</b>				935 tCO <sub>2</sub> e	TBC	
4.1.1	<p><b>Gorse Ride Regeneration Project</b></p> <p>A chance for Wokingham Borough Council to take the lead and set an exemplar approach.</p> <p>Provide residents with more efficient, warmer homes, with cheaper running costs.</p>	<p>New council homes will follow the passivhaus housing scheme as in action To develop a council led pilot Passivhaus housing scheme by 2021.</p> <p>Regeneration of urban improvement schemes. There are around 255 homes in Gorse Ride state regeneration project.</p>	<ol style="list-style-type: none"> <li>1. Assess and identify a suitable site for PassiveHaus scheme to be applied, based on optimal savings.</li> <li>2. Contact developers and discuss requirements/design ideas, along with required consultants.</li> <li>3. Apply measures.</li> <li>4. Monitor performance and feedback from users</li> </ol>	<p>Design options at Gorse ride under assessment. It has houses designed to the first the first stage of PassiveHaus. There will be no gas to the domestic houses on the side.</p>	935 tCO <sub>2</sub> e	<p>Medium term</p> <p>Costs TBC</p>	
330							
4.2	<b>Improve energy performance of council housing stock.</b>				9,542 tCO <sub>2</sub> e	TBC	
4.2.1	<p><b>Improve energy performance of council housing stock.</b></p> <p>Improving the energy efficiency of our homes will mean households can significantly reduce demand and save money on their bills, reducing fuel poverty rates.</p>	<p>There are around 2,600 council owned housing units. We want to improve energy performance of council housing and incrementally reduce the use of domestic gas and replace it with cleaner technologies.</p> <p>This will contribute to a</p>	<ol style="list-style-type: none"> <li>1. Survey the whole stock to develop and energy benchmark.</li> <li>2. Carry out assessment to Public Energy Supplier funding that could be used to improve the energy profile of council housing.</li> <li>3. Carry out an assessment to ECO (Energy Company Obligation) scheme and potential funding.</li> <li>4. Pilot energy improvement work to a property increasing it from SAP D to B.</li> </ol>	<p>Basic condition surveys are underway to assess stock and EPC ratings.</p> <p>ECO scheme assessment completed.</p> <p>Pilot Project Completed in Riseley,</p>	9,542 tCO <sub>2</sub> e	<p>Medium Term</p> <p>Costs TBC</p>	

REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
33 4.3		reduction in energy bills and fuel poverty rates.  Improve energy efficiency of council owned houses to EPC band C.	5. Carry out independent EPC ratings for each property. Establish and deliver a retrofit programme for council housing based on EPC baseline and available budgets.	raising a house from SAP D to B.  Also completed a council owned housing project for Care Leavers that achieved SAP A rating.  Focus Group Council Housing Stock to be established.			
	<b>By 2029 all local schools to be retrofitted</b>					<b>5,034 tCO<sub>2</sub>e</b>	<b>TBC</b>
4.3.1	<b>Upgrade various energy measures in the schools to improve their energy performance.</b>  Improving the energy efficiency of our schools will significantly reduce demand and save money on their bills. Support more jobs in the green and sustainability industries	Schools retrofitting programme will be based on initial assessment. Works will typically include: LED lighting, Insulation measures, controls upgrades, heating upgrades / replacements and Renewable Energy Generation technologies. Priority given to energy 'payback' calculations of	1. Carry out energy audits to all schools to identify possible energy reduction projects. 2. Establish and deliver the schools retrofitting programme which will be based on carbon 'paybacks'.	Stock Condition survey reports underway, to feed into Energy Management Plan. Collecting EPC certificates and run energy audits to support this.  Projects Ongoing in advance of the above, where realistic ROI can be achieved.	5,034 tCO <sub>2</sub> e	Medium term  TBC	

REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
	Emerging of new supply chains for building efficiency will reduce the cost of the green technologies such as heat pumps, batteries, solar panels, etc.	less than five years against energy spend.		Measures achieving 98.71 tCO <sub>2</sub> e of savings per year already implemented.			
<b>4.4</b>	<b>75% of Homes to be EPC C rating or above</b>				<b>55,490 tCO<sub>2</sub>e</b>	<b>TBC</b>	
<b>332</b> <b>4.4.1</b>	<b>Develop and deliver schemes to support retrofitting of homes - ECO (Energy Company Obligation) offering.</b>  Improving the energy efficiency of our homes will mean households can significantly reduce demand and save money on their bills, reducing fuel poverty rates.	Support residents to reduce their energy usage and carbon emissions and increase the uptake of green energy technologies. This scheme will include energy efficiency measures.  More residents will be able to improve the energy efficiency of their properties and switch from gas to electricity	<ol style="list-style-type: none"> <li>1. Set up the scheme. Identify the type of measures that can be implemented</li> <li>2. Identification of suppliers that will help deliver the scheme</li> <li>3. Scheme approval by Executive</li> <li>4. Launch the scheme – identify and contact the residents that can benefit from the scheme</li> <li>5. Continue advertising and implementation.</li> </ol>	The scheme is now active and will continue to advertise and implement improvements, likely until the end of 2025.  Over 1500 households getting assistance so far from help to heat, the councils locally set ECOFlex scheme.	25,690 tCO <sub>2</sub> e	Medium – long term  £750,000	



REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
4.4.2	<p><b>Develop and deliver schemes to support retrofitting of homes - Green Homes Grant.</b></p> <p>Improving the energy efficiency of our homes will mean households can significantly reduce demand and save money on their bills, reducing fuel poverty rates.</p>	<p>Support residents to reduce their energy usage and carbon emissions and increase the uptake of green energy technologies. This scheme will include energy efficiency measures. More residents will be able to improve the energy efficiency of their properties and switch from gas to electricity</p>	<ol style="list-style-type: none"> <li>1. Deliver Green Homes Grant LAD 1</li> <li>2. Green Homes Grant LAD 2</li> <li>3. Continue application for upcoming grants</li> </ol>	<p>Completed referral process stage of the scheme, progressing to installation of measures stage.</p>	<p>Included in total</p>	<p>Medium term</p> <p>Nil</p>	
4.4.3	<p><b>Engage with House Associations to support retrofitting of homes.</b></p> <p>More residents will be able to improve the energy efficiency of their properties and switch from gas to electricity. By improving the energy efficiency of our homes will mean households can significantly reduce</p>	<p>Contact social housing associations to demonstrate and discuss the opportunities around retrofitting homes, towards greater energy efficiency.</p> <p>This will enable more residents to reduce their energy usage and associated costs.</p>	<ol style="list-style-type: none"> <li>1. Discuss opportunities for collaboration with housing associations/landlord on social housing improvements.</li> <li>2. Direct towards SHDF scheme.</li> <li>3. Support delivery of measures.</li> <li>4. Monitor and provide advice.</li> </ol>	<p>Initial conversation with RPs delivered in October 2021.</p> <p>Delayed due to insufficient capacity.</p>	<p>Included in total</p>	<p>Long term</p> <p>Costs TBC</p>	

REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
	demand and save money on their bills, reducing fuel poverty						
33 44.4	<p><b>Support residents and local businesses to reduce their energy usage and carbon emissions by retrofitting their properties - Green Bank and home decarbonisation Scheme</b></p> <p>More residents will be able to improve the energy efficiency of their properties and switch from gas to electricity. By improving the energy efficiency of our homes will mean households can significantly reduce demand and save money on their bills, reducing fuel poverty.</p>	<p>The Green Bank Scheme will provide loans to assist householders in their net zero carbon ambitions. This will include energy efficiency measures on the fabric of the building and replacing appliances with low carbon versions. Householders will pay this back against a loan re-payment (plus interest) over a period of time (7, 10 and 15 years).</p> <p>The home decarbonisation service will provide advice to help residents make informed decisions about their home.</p>	<ol style="list-style-type: none"> <li>1. Identify partners and set up the scheme</li> </ol>	<p>Green Bank Focus Group set up and running. Currently assessing different partners and schemes.</p> <p>Home decarbonisation service under development.</p>	Included in total	<p>Medium term</p> <p>Costs TBC</p>	

REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
4.4.5	<p><b>Smart City Cluster pilot project</b></p> <p>May identify wider opportunities for energy savings elsewhere.</p>	<p>The project focus on energy savings from ‘small’ devices using a ‘smart’ plug. This project will help to inform on technologies that will help reduce energy consumption.</p>	<ol style="list-style-type: none"> <li>1. Contact Measurable Energy regarding pilot under new funding.</li> <li>2. Trial office locations where the impacts across numerous devices can be tested and monitored. They are looking for a minimum energy saving of 5% along with associated cost savings.</li> </ol>	<p>This project was explored but has been significantly delayed due to covid.</p>	<p>Included in total</p>	<p>Long term</p> <p>Nil</p>	
335 4.4.6	<p><b>Street lighting project</b></p> <p>Benefits wildlife with less light pollution.</p> <p>Reduces running and maintenance issues/costs.</p> <p>Greater monitoring ability to detect and respond to issues.</p>	<p>A major street lighting LED Upgrade Scheme took place over the last few years. This has significantly reduced energy consumption and equipped the streetlights with remote control/monitoring.</p>	<ol style="list-style-type: none"> <li>1. Part-night lighting: Apply “part-night” timing to highway street lights, where they switch off between 0:30 and 5:30.</li> <li>2. The council will explore how this scheme could be extended to other roads</li> <li>3. Dimming: All of the new LED lights are dimmable and in the majority of locations we currently dim them to 80% power at 10pm and 60% power at midnight. The council will explore the possibility to further fine-tune these dimming levels.</li> <li>4. With the DfT reducing requirements for lighting</li> </ol>	<p>Further updates following the LED Upgrade Project are currently being made, with the few remaining sites where the street/sign lighting is to be upgraded (e.g. Market Place) to be complete in the next few years. Approximately 2,000 lights now follow part night timing.</p> <p>Ongoing programme of upgrades of traffic signals to LED and more energy efficient control. Fine tuning</p>	<p>Included in total</p>	<p>Medium – long term</p> <p>Costs TBC</p>	

REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
			<p>signs and traffic bollards these will be included where possible.</p> <p>5. The expected new infrastructure and housing projects lighting requirements, along with new traffic signals across the borough will be minimised where possible, but some increase is anticipated from such.</p>	<p>lighting would require individual design for each road so will be a gradual process.</p> <p>Compared to 2019/20 figures this represents savings of 163 tCO<sub>2</sub>e.</p>			

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## Carbon Sequestration

### Annual Carbon Savings: 4,360 tCO<sub>2</sub>e

It is acknowledged that some emission sources will be nearly impossible to eliminate, hence some offsetting will be required, though this is done as a final response, with minimisation being prioritised. However, these projects are not only focused on carbon and offer considerable benefits to biodiversity and public health. Indeed, nature-based solutions are an expanding area which will look to be included more in future through the upcoming adaptation plan.

Key measures here revolve around land management, aiming to increase both the area utilised for sequestration and biodiversity through more trees and allotments etc, alongside maintaining or improving the quality of these areas, through better soil/grassland management etc. Hence, through this approach trees are planted towards overall objectives through optimal schemes, be it as part of hedgerows, orchards or full woodlands.

Indeed, the last year has focused on groundwork to ensure the long-term sustainability of this project, considering the essential maintenance and selection of the trees for each location. This will be supported by a Tree Strategy, which will help meet statutory biodiversity obligations, while maximising the wide range of benefits that trees and woods can deliver.

The council plans also include projects to manage grassland, rewild land, protect and enhance wetland habitats, promote native planting and target woodland creation, as well as retention and maintenance of existing trees.

However, agricultural emissions remain a noticeable element of the boroughs overall profile, so alongside these goal, future iterations of the plan will incorporate targets to minimise these where possible by working alongside land owners to improve the efficiency of operations in regard to emissions, with minimal economic impact.

Wokingham Borough Council's partnership with the Woodland Trust will ensure we receive the advice and support needed to ensure that we will be able to maximise the wide range of benefits that trees and woods can deliver.

### Key Achievements this year:

- Alongside hedgerows and management, the 15,400 trees planted since October have contributed towards offsetting an estimated 2,310 tCO<sub>2</sub>e.
- Community orchards planted at Winnersh Meadows, Woosehill Meadows and Dinton Country Park, in collaboration with Freely Fruity.
- 1,800 new trees confirmed for residents under Garden Forest Scheme – available for collection in autumn.
- Engaging with private landowners and town/parish councils who can register interest for scheme.

### Consumption Emissions:

- These emissions are minimal due to planting UK and Ireland sourced and grown native trees.

### Action Changes:

- Previous action 21.2 removed as this was investigated but the benefits to carbon savings and AQ would be minimal at the viable scale.

### SDGS:



REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
5.1	<b>Cover 170 hectares with new trees in the form of woodlands, hedgerows and orchards</b>				<b>2,329 tCO<sub>2</sub>e</b>	<b>£2.215m</b>	
338 5.1.1	<p><b>Create a new forest that will increase the number of trees in the Borough to improve carbon capture and biodiversity net gain.</b></p> <p>New community orchards for local food production.</p> <p>Improve our local air quality.</p> <p>Safeguard local biodiversity.</p> <p>Improve water management.</p> <p>Provide space for leisure, recreation and education.</p>	<p>Large-scale (greater than 5ha) woodland planting on council owned land on high carbon capture potential sites (e.g. arable land, improved grassland).</p> <p>Current woodland cover estimated at 2576 ha of Wokingham Borough (14.3%). Planting 250 ha more woodland (and associated green infrastructure) would get the Borough woodland land cover close to 15%.</p>	<ol style="list-style-type: none"> <li>1. Initial feasibility study, project plan and business case development.</li> <li>2. Identify council owned land that is suitable for a major tree planting scheme.</li> <li>3. Review our estate portfolio for agricultural land / improved grassland, which has the potential to be converted to woodland.</li> <li>4. Engage forestry specialist contractor to advice on feasibility, constraints, and process. Prepare consultant brief.</li> <li>5. Preparing plans and consulting public.</li> <li>6. EIA Screening / Planning.</li> <li>7. Grant and other scheme applications.</li> <li>8. Ordering and planting trees (with protection).</li> <li>9. Installation of other site infrastructure.</li> <li>10. Produce forest management plan.</li> <li>11. Handover to site manager (phased) - Ongoing management</li> </ol>	<p>Green Infrastructure Special Project Manager is now in post.</p> <p>15,400 trees planted since October, following project plan.</p>	Included in total	<p>Medium term</p> <p>£705,500</p>	



REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
33 33.1.2	<b>Deliver small-scale woodland planting on council estate in existing parks and opens spaces sites.</b>	Identify potential programme to invest in small-scale woodland planting on council estate in existing parks and opens spaces sites. This small-scale planting can be deployed with shorter time scales than larger afforestation schemes.	<ol style="list-style-type: none"> <li>1. Assessment of council estate portfolio to identify areas in existing public open space that has potential to be converted to woodland.</li> <li>2. Carried out an internal review of constraints, costing, and scheduling. Preferably looking to target small low risk areas.</li> </ol>	Work to assess the council estate portfolio to identify areas in existing public open space that has potential to be converted to woodland is ongoing.	Included in total	Medium term  £618,000	
	New community orchards for local food production.	Estimate 5 to 10 ha of land available (circa 8,000 to 16,000 trees if planted as woodland).	<ol style="list-style-type: none"> <li>3. Preparing plans.</li> <li>4. Implement public consultation on identified sites.</li> <li>5. Grant and other scheme applications.</li> </ol>	Community orchard planted at Woosehill and Winnersh Meadows (182), in collaboration with Freely Fruity, along with 29 fruit trees and thousands planted as hedgerows at Dinton Country Park, alongside various schemes. Breakdown on sites available on Wokingham engage.			
	Improve our local air quality.	Potential for the sites to be planted as Community Orchards for local food production and BAP targets. Converting from improved grassland to traditional orchard with wildflower rich ground flora has the potential to still sequester circa 6 tonnes of CO2e equivalent a year.	<ol style="list-style-type: none"> <li>6. Ordering and planting trees (with protection).</li> <li>7. Ongoing management - Produce/review woodland management plan.</li> <li>8. Promote tree planting campaigns to engage with residents, schools and local businesses (e.g. National Tree Week).</li> </ol>				
	Safeguard local biodiversity.						
	Improve water management.						
	Provide space for leisure, recreation and education.						

REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
340 5.1.3	<p><b>Support woodland and hedgerow creation on private sites.</b></p> <p>Improve our local air quality. Safeguard local biodiversity.</p>	Set up a grant scheme for local private landowners to apply for funding to create new woodland and hedge roads on privately owned sites.	<ol style="list-style-type: none"> <li>1. Produce Wokingham Borough Tree strategy to establish guidance for the delivery of the scheme.</li> <li>2. Set up the scheme. Define the thresholds, suitability assessment and grants or plants.</li> <li>3. Call for sites - Scheme promotion and engagement with local landowners Selection for piloting with a beacon site.</li> <li>4. Tranche 1 - Planting plan design and approval, establishing contract negotiation, payment mechanism, compliance checking and other grant and carbon trading scheme support.</li> <li>5. Review of tranche 1 take-up and feasibility assessment for tranches 2 &amp; 3.</li> </ol>	Engaging with private landowners and town/parish councils who can register interest for scheme via Wokingham engage.	Included in total	<p>Medium term</p> <p>£705,500</p>	
5.1.4	<p><b>Make Wokingham a Garden Forest by promoting and encouraging residents to plant new trees.</b></p> <p>Improve our local air quality.</p>	Establish general process and guidance that could allow residents and local businesses who want to plant and maintained their own trees either with our permission on our land, or to help them have a successful tree on their own land.	<ol style="list-style-type: none"> <li>1. Produce Wokingham Borough Tree strategy to establish guidance for the delivery of the scheme.</li> <li>2. Design the scheme; include considerations on types of trees, maturity.</li> <li>3. Provide the mechanism to select the right tree for the right place.</li> </ol>	Working with the T&L team to develop Native Tree Palette which will help provide guidance on which trees are suitable for each landscape character.	Included in total	<p>Medium term</p> <p>£160,000</p>	

REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
341	Safeguard local biodiversity.  Improve water management.  Supports leisure, recreation and education.	A community of garden tree owners - scheme will be required to engage the community and ensure the legacy of the tree planting, securing that trees will be looked after.  These schemes will seek to deliver 6,000 trees  Estimate that a scheme with approximate 10% of householder take up rate has the potential to deliver 6,000 to 7,000 trees planted. Recommend that that the scheme should be budgeted to have a 10,000 tree ceiling.	<ol style="list-style-type: none"> <li>4. Establish the delivery mechanism.</li> <li>5. Launch the scheme and engage with residents and local businesses. Provide guidelines on the types of trees to be planted, the pathway for application of new trees and the benefits from the tree (carbon savings, biodiversity gain, etc.).</li> <li>6. Implementation of the scheme. System to take and register the orders - place tree orders and delivery. Record keeping.</li> <li>7. Legacy - is there ongoing support offered. Long-term recording of benefits Opt-out (local offsetting)</li> <li>8. Annual review and monitoring of the scheme.</li> </ol>	<p>1800 new trees confirmed for residents under Garden Forest Scheme – available for collection in autumn.</p> <p>This will be re-run following significant interest.</p>			
	5.2	<b>Carbon sequestration by design - improving carbon sequestration rates in future land management decisions.</b>				<b>2,031 tCO<sub>2</sub>e</b>	<b>TBC</b>
5.2.1	<b>Develop the Wokingham Borough Tree Strategy to support long-term creation and retention of woodland and trees.</b> Improve our local air quality.	<p>Developing a tree strategy for the Borough which will help define:</p> <ul style="list-style-type: none"> <li>• Appropriate species (and adaptation to climate change);</li> <li>• Good management practice;</li> </ul>	<ol style="list-style-type: none"> <li>1. Identification of requirements for Tree Strategy.</li> <li>2. Development of Feasibility study brief (including land appropriation and/or acquisition).</li> <li>3. Develop and builds upon existing studies.</li> </ol>	Value Engagement Survey published on Wokingham engage in Nov 2021 – results reviewed into report for O+S in	660 tCO <sub>2</sub> e	Short term  Included within the projected cost for Target 17	

REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
	Safeguard local biodiversity. Improve water management. Supports leisure, recreation and education.	<ul style="list-style-type: none"> <li>Facilitating ongoing recruitment to veteran tree population;</li> <li>Appropriate places for woodland creation; and access.</li> <li>Improving the retention rate of trees - The longer trees are standing the longer carbon is locked up.</li> <li>Encouraging planting of woodland on private land.</li> </ul>	<ol style="list-style-type: none"> <li>Identify land available and type of habitat.</li> <li>Verify likely carbon sequestration.</li> <li>Confirm more detailed cost estimates.</li> <li>Allows milestone point for decision to continue with full funding.</li> </ol>	<p>Jan 2022, leading to below.</p> <p>Draft tree strategy underway with consultant, for public consultation in October 2022.</p>			
342	<p><b>Include in the Local Plan Update policy for carbon sequestration potential. Subject to inspection, the local plan update will include:</b></p> <ul style="list-style-type: none"> <li><b>Green Infrastructure Policy</b></li> <li><b>Tree Policy</b></li> <li><b>Flood Policy</b></li> <li><b>Biodiversity Policy</b></li> <li><b>Design Policy.</b></li> </ul> <p>Avoid / reduce the loss of established habitat.</p>	<p>Policies written to avoid loss of established habitat will help retain carbon stores.</p> <p>Policies written to seek multifunctional design of green and blue infrastructure will build in carbon sinks to new development.</p> <p>Policies written to retain and enhance biodiversity (particularly botanic diversity) will aid carbon sequestration in soils.</p>	<ol style="list-style-type: none"> <li>Require a review of ability to enhance carbon sequestration rates for all new policies and design guides to be published alongside.</li> <li>Independent assessment - design policy approach to maximise carbon sequestration.</li> </ol>	Not Started	42 tCO <sub>2</sub> e	<p>Medium term</p> <p>£10,000</p>	

REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
	Retain and enhance biodiversity.	Design guide to green and blue infrastructure will encourage inclusion of low intensity (maintenance) habitat for carbon sequestration.					
343  5.2.3	<p><b>Develop the Local Nature Recovery Strategy to provide complementary funding source to aid land use change (LULUCF being a carbon sink)</b></p> <p>Biodiversity net gain unit capacity raises the value of land.</p> <p>Avoid / reduce the loss of established habitat.</p> <p>Retain and enhance biodiversity.</p>	<p>Developing a Local Nature Recovery Strategy that covers the Borough will provide a 5% uplift on the number of biodiversity net gain units that can be generated in areas identified as part of a local nature recovery network. The ability of soil to sequester carbon correlates positively with biodiversity.</p> <p>Additional biodiversity net gain unit capacity raises the value of land (for making improvements for biodiversity), and will leverage funding for habitat improvement that will lead to soil restoration and carbon sequestration.</p>	<ol style="list-style-type: none"> <li>1. Develop the Local Nature Recovery Strategy through the Berkshire Local Nature Partnership.</li> <li>2. Initial analysis of 30% target area - mapping exercise.</li> <li>3. Develop Berkshire wide habitat inventory to update LULUCF.</li> <li>4. Consultation exercise with stakeholders.</li> <li>5. Revising the Local Nature Cover Strategy and taking it through the local authority adoption process.</li> </ol>	<p>Not Started</p> <p>Awaiting government regulations.</p>	Included in total	<p>Medium term</p> <p>£40,000</p>	

REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
		On assumption that average of 2.5 units per ha (not including current woodland area) can be generated at £15,000 per unit, the 5% uplift on a LNRS (over and above the national strategy area) would generate value on the biodiversity potential of £5,276,250					
344 5.2.4	<p><b>Develop a Natural Flood Management partnership and scheme.</b></p> <p>Reduce risk of floods and improve water management.</p>	<p>The creation of wetland habitat as part of a programme of restoration of natural flood management processes has potential to sequester carbon and reduce soil degradation.</p> <p>The partnership work and scheme would place through agreements with Environment Agency, water companies, and other Loddon Catchment Partnership partners.</p>	<ol style="list-style-type: none"> <li>1. Initial mapping exercise to identify locations that will provide wetland habitat and could be forward into the scheme.</li> <li>2. Consultation exercise with stakeholders.</li> <li>3. Revising the Strategy and taking it through the local authority adoption process.</li> </ol>	<p>Across the borough there has been a significant reduction in flood risk from surface and groundwater.</p> <p>Working closely with environment agency to reduce fluvial flood risk in the borough.</p> <p>All new developments come with drainage responsibility so measures incorporated.</p>	Included in total	Long term Costs TBC	



REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
5.2.5 345	<p><b>Work to transition Grassland Management to less frequent cutting scheme allowing wildflowers to bloom and set seed.</b></p> <p>Less maintenance than traditional mowing schedules can save money. Significantly increasing local wildlife density and diversity.</p> <p>Support learning for the wider community and provide opportunities to get involved in environmental projects.</p>	<p>Considerations to the BLUE heart campaign style management of grassland moving away from improved grassland habitat under an intensive cut cycle and allowing rewilding of highway verge and other areas increasing</p> <p>Currently approximately 125ha of Environmental Localities greenspace is improved or semi-improved grassland.</p>	<ol style="list-style-type: none"> <li>1. Pilot the principle of cut and collect to highways verge to improve biodiversity and soil restoration in selected areas. Run a 5% conversation pilot for highways verge and rural highways verge</li> <li>2. Target of 12.5ha of wildflower grassland creation across Environmental Localities sites.</li> <li>3. Working with ecosystem services team to manage land in more sustainable manner.</li> </ol>	<p>PROW first cuts have started across the borough.</p> <p>Nature reserve public access cuts have started on access paths.</p>	642 tCO <sub>2</sub> e	<p>Medium term</p> <p>£130,000</p>	
5.2.6	<p><b>Work to transition Grassland Management to support the Restoring Biological Processes.</b></p> <p>Less maintenance than traditional mowing</p>	<p>Natural greenspace grassland will perform better at carbon sequestration where:</p> <p>a) soil compaction from machinery is kept to a minimum, and</p> <p>b) structural diversity is</p>	<ol style="list-style-type: none"> <li>1. A feasibility study for applying a Legacy Gracing approach will set out the steps towards reducing our reliance on machine cutting and restoring soils.</li> </ol>	<p>Meadow management has started on some of our sites regards to conservation grazing while other will only be grazed</p>	642 tCO <sub>2</sub> e	<p>Medium term</p> <p>Costs TBC</p>	

REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
	schedules can save money. Significantly increasing local wildlife density and diversity.	encouraged by 'conservation' grazing (instead of uniform cutting). With the additional natural greenspaces being taken on alongside development the scale to justify an internally owned and managed conservation-grazing herd may be reached.		after a hay cut in August.			
346	<b>5.2.7 Implement Citizen Science Engagement for Hedgerow Restoration.</b> Improve our local air quality. Safeguard local biodiversity. Improve water management.	There is approximately 1534 km of (mapped) hedgerow in Wokingham Borough. Of this, approximately 963km (63%) is within the countryside (as defined by settlement hierarchy). Of this, approximately 397km (26%) are associated with the adopted highway. Hedgerows are a good target for restoration work to increase the number of standing mature trees storing carbon. At a 50m spacing 400km of hedgerow would be equate to 8,000 open growing trees.	<ol style="list-style-type: none"> <li>1. TVERC product development to take PTES hedgerow survey data and project in an interpreted way to inform hedgerow management for land managers.</li> <li>2. Tool can be used by Trees &amp; Landscape officers for enforcement of the Hedgerow Regulations.</li> <li>3. To inform a planting and restoration plan (as a part of the tree strategy), a citizen science condition assessment programme would greatly enhance the targeted planting of trees in suitable locations.</li> </ol>	Delayed due to staffing issues at TVERC, which the product is reliant on.	45 tCO <sub>2</sub> e	Medium term  £15,000	

REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
5.3	<b>Implement a programme of carbon sequestration opportunities</b>				<b>Included in total</b>	<b>Nil</b>	
5.3.1 347	<p><b>Engage the community with Community Garden Schemes.</b></p> <p>Promote production of fresh, local, seasonal produce. The social contact offered by gardening in an allotment environment helps to combat the lack of social capital embodied by loneliness. Gardening can prevent and alleviate mental ill-health and offer physical benefits. Improve local air quality.</p>	<p>Allow new allotment site due to be opened in 2020 as part of the South Wokingham Strategic Development Location (SDL)</p> <p>Carbon savings for these schemes are detrimental, however engaging residents with allotments and community garden schemes contributes to behavioural change</p>	<ol style="list-style-type: none"> <li>1. Work with UoR in assessing the 'Life Cycle Sustainability Analysis (LCSA) of Urban Food Production – the Case of Allotment Gardens and identify future opportunities for engagement</li> <li>2. Explore the opportunity to plant hazel trees on sites for future purposes, including the local provision of hazel beanpoles, to reduce consumption emissions.</li> </ol>	Not Started	Included in total	Short term Nil	

## Schools & Young People

### Annual Carbon Savings: Accounted for throughout the plan

WBC recognises the next generation will be a significant factor in ensuring the success and continuity of this plan due to the extended timescales of the associated impacts and solutions. Therefore, schools, teachers and young people themselves will be key partners for delivery of the actions set out below. Moreover, making the voices of young people heard should also encourage intergenerational learning meaning sustainable behaviour change is encouraged in their parents and families.

Key measures focus around engagement, awareness raising and education, passing across the same lessons we are currently trying to convey to wider residents and businesses, but in a more appropriate format. Doing so from an early age will ensure the environment is an automatic consideration throughout their future lives, with behaviours and routines already being entrenched which will support this.

With climate issues being a big focus globally and still growing, it is also vital children learn around it and how it impacts everything, as this will help deliver the skills they require to succeed in the upcoming green economy.

Due to this being future savings and around embedding behaviours beyond the 2030 plan these actions below are listed as neutral. However, carbon saving associated with the tree planting, retrofitting and active travel work with schools is accounted for in the relevant sections.

Due to Covid-19 related restrictions in visiting schools over the last two years there has been less physical engagement with schools than planned. Despite this, the council has continued to build up contacts with schools and gain more experience of delivering these targets virtually which will be implemented in the updated action plan below.

There are various environmentally focused initiatives, award schemes and accreditations which schools can work towards and many schools in the borough have achieved some of these awards. The council's aim is to make it as simple as possible to identify which scheme will work for them and what their pupils want to achieve and support schools in their journey to becoming more sustainable or even net zero carbon and how this can tie in with the curriculum at all levels.

### Key Achievements this year:

- Let's Talk Climate sessions run with primary and secondary school children specifically.
- Second annual Youth Climate Conference delivered in Nov 2021.
- 12 schools actively engaged with ModeShift STARS

### Consumption Emissions:

- The engagement targets below are to reduce overall carbon footprints of our residents which includes all 3 scopes of emissions. Further details of estimations are explained in the methodology.

### Action Changes:

- No direct action changes in this section.

### SDGS:



REF	Action / Co - Benefits	Description / Outcomes	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
6.1	<b>Encourage and support school children in the Borough to take an active role in reducing carbon emissions</b>				<b>Neutral</b>	<b>TBC</b>	
6.1.1	<p><b>Deliver annual climate emergency assemblies at local schools.</b></p> <p>Engagement from pupils should also reduce out of scope emissions in their carbon footprints, such as from food choices.</p>	<p>Introduce discussions about Climate Emergency amongst children and young adults via an annual climate emergency assembly for all secondary school students.</p>	<p>1. Plan and deliver climate emergency assemblies with all secondary schools.</p>	<p>This project remains on hold. Climate Emergency Assemblies were delivered to all year groups in 3 Secondary Schools in the borough in the 2019/20 academic year, to a total of approximately 3,357 pupils before lockdown restrictions came into place.</p> <p>Assemblies have been carried out by the MyJourney team about active travel and by the Air Quality Active Travel Officer about air quality over the 2021/22 academic year.</p>	Neutral	<p>Short term and ongoing</p> <p>Nil</p>	
349							
6.1.2	<p><b>Create climate committees in schools.</b></p> <p>Will be able to raise awareness around the connectedness of the climate emergency into all affected topics such as biodiversity.</p> <p>Engagement from pupils should also reduce out of scope emissions in their</p>	<p>Provide an opportunity for students, teachers, parents and the local community to work together to support the delivery of climate related projects.</p> <p>Increase engagement with climate emergency issues and ownership of actions to reduce carbon dioxide emissions.</p> <p>One per school starting</p>	<p>1. Produce information pack for how to set up a school council.</p> <p>2. Provide contacts within Wokingham Borough Council to help/attend when needed.</p>	<p>The Youth Council was set up in the summer of 2021. This is a borough wide initiative and serving a wide range of council areas.</p> <p>The climate emergency is one of the 10 Youth Council priorities. The first session of the council focused on Climate Emergency on 20th September 2021. The Climate Emergency and Waste teams attended and presented at this meeting.</p>	Neutral	<p>Medium term</p> <p>Nil</p>	

REF	Action / Co - Benefits	Description / Outcomes	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
	carbon footprints, such as from food choices.	with secondary schools initially.	3. Aim to set first committees up with particularly engaged schools in 2021, or 2022 depending on the schools capacity post covid-19.	The Youth Council has also set up its own a Climate Change Sub-Committee which was promoted by the council with a sign-up sheet at the Youth Climate Conference in November. This is open to all students of secondary schools and the group continue to meet.		Short term and ongoing  Nil	
350  6.1.3	<b>Deliver the Youth Climate Conference.</b>  Learning opportunity around how energy use impacts our carbon footprints.	Increased awareness, engagement and understanding of climate emergency issues amongst children and young adults attending. Youth Climate Conference is aimed at sixth form (16+) students from across the Borough.	1. Deliver an annual Youth Climate Conference for secondary school students of the borough's schools to keep the conversation going with young people.  2. Aim to repeat this event virtually one a platform which allows for improved engagement.	A Youth Climate Conference was delivered as a series of videos in October 2020 and received a total of 5,600+ views across all social media platforms.  The second Youth Climate Conference was delivered on 24th November 2021 on Teams. There were 3 external speakers covering water scarcity and biodiversity and conscious consumption and 3 council officers discussing the councils work with schools to help with sustainability. The recording of the event can be found on the councils YouTube channel.	Neutral	Short term and annual  £2,000	



REF	Action / Co - Benefits	Description / Outcomes	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
6.1.4 351	<b>Encourage schools to include climate emergency issues in lesson time.</b>	Commitment from schools to include climate change in lesson time, for all children in at least one subject i.e. science, geography, philosophy, PSHE.	<ol style="list-style-type: none"> <li>1. Create a series of climate emergency lesson plans for Key Stages 1-3 initially.</li> <li>2. An initial climate emergency lesson plan has been drafted for testing in secondary schools.</li> <li>3. Create a pledge with criteria for all schools to sign; to be presented at the Secondary Federation.</li> <li>4. Create campaign to engage across schools and the public to lobby for commitment from all schools. Use different communication channels (e.g. local news, social media, etc.)</li> <li>5. Gain commitment from all schools and follow up to see how they are fulfilling the promise, with positive press coverage.</li> </ol>	<p>The council is working with teachers in the borough to investigate how this can be best achieved as in the different levels of education as well as gauging interest from schools and identifying gaps in climate education.</p> <p>Sustainability and climate change topics in lesson time will be a topic of discussion between local educators at the Teacher's Climate Summit which is due to be held in July 2022.</p>	Neutral	Medium term  Nil	
	<b>Encourage schools to adopt sustainable property and operational management practices that reduce carbon</b>	Develop a sustained campaign to encourage schools to focus on environmental issues to promote behavioural change.	<ol style="list-style-type: none"> <li>1. Work with schools to encourage retrofitting and raise awareness about energy ratings, usage and consumption.</li> </ol>	Gas AMR installation has been completed in the majority of schools in the borough. This produces an accurate consumption information. Feedback is then given to	Neutral	See Target 15.1	

REF	Action / Co - Benefits	Description / Outcomes	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
	<b>emissions and support the environment.</b>  Learning opportunity to tie in the various services the council can provide into the climate emergency.	Better informed children and school staff on sustainability practices.		schools to address unusually energy spikes.			
			2. Work with schools to identify the school's carbon footprint including consumption emissions where possible, such as from food choices.	This service has yet to be promoted formally but will be part of an offer launch via the new climate emergency webpage.	Neutral	Short term Nil	
352	<b>Encourage Wokingham Borough schools to become net zero carbon and embrace sustainability.</b>	Create positive partnerships with schools to make the best use of already existing schemes such as the Eco Schools Scheme, UN Climate Accreditation for school staff, etc.  All schools to achieve Eco Schools programme by December 2025.	1. Get all schools to sign up to bronze level of eco schools by December 2021 2. Set up an incentive for all local schools to become green flag level by December 2025	Eco Schools has been invited to attend the Teacher's Climate Summit being held in July 2022 to encourage schools to take part.	Neutral	Short term Nil	
6.1.6	Comradery amongst a local network of schools, students and teachers to share lessons learned through both failure and success and accelerate the path to carbon neutral.	Support schools to assess their carbon emissions and sustainability status.  Each school to have a sustainability and carbon emissions baseline to help schools to take better informed actions in the	3. Produce an online resource on the Council's offering to schools. 4. Assessment of sustainability initiatives implemented at schools to identify what they already do and how we can support them to become net-zero carbon.	Ongoing and will be launched with the new climate emergency webpage.  The assessment mapping exercise has taken place and is regularly monitored and updated.	Neutral	Short term Nil	

REF	Action / Co - Benefits	Description / Outcomes	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
353		journey to become net-zero carbon.	5. Energy performance assessment for each school.	<p>In addition to progress under Target 15.1 The Energy team are developing a rolling programme for Display Energy Certificates in the borough's schools including identifying unusual energy usage and Scheduling retrofit work to address these.</p> <p>There are an additional 13 retrofit projects soon to be carried out at schools including LED lighting, loft/pipe insulation and air source heat pump installations at oil fuelled sites.</p>	Neutral	See Target 15.1	
		Learn from best practices amongst local schools. Create an active network of support within and among schools.	<p>6. Draw up a step-by-step toolkit for schools to exemplify best practice in the borough, including financial cost.</p> <p>7. Create our own federation/platform for sustainability within schools with sustainability leads at schools.</p> <p>8. Look into ways where we can use internal school communications systems to nudge users.</p>	<p>Research is ongoing to bring together a comprehensive toolkit to help schools to decarbonise their operations. When ready, this will be available on the website. This will be a topic of discussion at the Teacher's Climate Summit in July 2022.</p> <p>Looking into setting up teacher forum/network as an outcome of the Teacher's Climate Summit.</p>	Neutral	Short term Nil	

REF	Action / Co - Benefits	Description / Outcomes	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
				Internal communication pathways in school are utilised where possible.			
6.1.7 354	<p><b>Support schools to implement carbon sequestration projects.</b></p> <p>Focus on wildlife, biodiversity and connection to where food comes from as co-benefits to absorbing carbon we produce from the atmosphere via planting.</p>	<p>Connect schools to voluntary sector and the community in projects such as planting in care homes, working with local allotments and farms.</p> <p>Increased engagement with carbon sequestration projects among children and young adults.</p>	<ol style="list-style-type: none"> <li>1. Planting trees and plants to create a small-scale young forest in school grounds or council owned land.</li> <li>2. Promote tree planting campaigns in schools grounds as part of education in climate change issues.</li> <li>3. Make more allotment plots available to people on council owned ground to encourage young people to grow their own food.</li> </ol>	<p>17 schools had trees planted within their school grounds last season (Oct 21-Mar 22). These consisted of hedgerows, small woodland and fruit tree planting. Officers are engaging with schools to encourage more to participate in the tree planting project during the next planting season. This scheme will be promoted to schools at the Teacher's Climate Summit.</p> <p>Freely Fruity, a charity helping the local community to plant more fruit trees, will be attending the Teacher's Climate Summit to promote fruit trees on schools' grounds.</p>	Neutral	<p>Medium Term</p> <p>Nil</p>	
6.1.8	<p><b>Waste reduction.</b></p> <p>These suggestions may be passed on to the parents and wider family.</p>	<p>Run competition between schools to promote recycling, reduce waste and increase children's awareness about the impact of waste and reduce recycling contamination.</p>	<ol style="list-style-type: none"> <li>1. Set up the competition guidelines and trial competition in a specific school.</li> </ol>	<p>Research has been carried out into Re3's ability to provide educational content for schools. They can offer lesson plans including activities, site tours for students aged 18+ and can deliver some</p>	<p>51.93 tCO<sub>2</sub>e</p> <p>(Out of scope)</p>	<p>Short term</p> <p>Costs TBC</p>	

REF	Action / Co - Benefits	Description / Outcomes	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
	It will have a long term benefit by embedding the ideas early.  Supports vulnerable groups with food donations.	Schools connected to Food Waste Hero volunteers and local businesses, to share surplus food (and other goods) rather than produce waste to increase children's awareness about the value of food and goods and reduce waste.	2. Investigate Freecycle for food schemes, to reduce food from schools go to waste and gets used, either for food banks or homeless shelters	education for this age group in schools. The next steps will be to draw attention to and offer these activities up to schools.			
6.2	<b>Celebrate schools achievements in climate emergency initiatives and inspire the future generations.</b>				Neutral	TBC	
355 6.2.1	<b>Launch sustainability awards for schools.</b>  Raise awareness of achievements and inspire the wider borough to engage with the climate emergency agenda.	Create an awards scheme to recognise and celebrate the efforts and achievements of local schools and their engagement with the climate emergency agenda.  Engage children with climate emergency initiatives.	1. Establish the criteria for all schools to participate. 2. Promote the school awards.	This project is on hold, however the achievements of schools around issues of sustainability are celebrated where possible through council communications.	Included in total	Short term  Costs TBC	
6.2.2	<b>Nurture creativity and resourcefulness amongst children and young adults.</b>  Raise awareness of achievements and inspire the wider borough to engage	Create a culture of innovation and enterprise thinking on climate emergency solutions  Help develop resourcefulness and creativity that is connected to climate change.	1. Roll out the Dragons Den climate competition across all schools.	The pilot was successfully completed at one secondary school in the 2019/20 academic year.  This project now on hold due to limited resources.	Neutral	Short term  Costs TBC	

REF	Action / Co - Benefits	Description / Outcomes	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
	with the climate emergency agenda.						
6.2.3	<b>Implement a behavioural change programme within schools that would support the adoption of new behaviours, particularly within sustainability and climate change.</b>	Initial pilot in three schools will result in engaging 200 children who are encouraged and rewarded for taking daily sustainable actions.	<ol style="list-style-type: none"> <li>1. Identify and propose schools that should be part of the pilot.</li> <li>2. Set up focus groups with children to drive the platform design. Potential to use eco committees within schools.</li> <li>3. Write a Business Case that includes timelines, activities and carbon savings to obtain funding for the scheme implementation.</li> </ol>	The council undertook an internal 'Market Engagement' event in October 2021 where council officers had the opportunity to assess various 'behaviour change' platforms, tools and organisations on the market. Several of these were focused on schools, mostly related to transport. The next step will be to identify a gap which can be addressed through a platform.	Neutral	Short term Costs TBC	
356	Raise awareness of achievements and inspire the wider borough to engage with the climate emergency agenda.						



## Waste and Recycling

### Annual Carbon Savings: 53,316 tCO<sub>2</sub>e (Out of scope)

To reach total net zero, along with minimising wider environmental impacts such as plastic pollution, it is vital to also minimise the amount of waste produced, following the waste hierarchy. This reduction is the primary goal of the waste strategy, alongside ensuring all recyclables are sorted correctly wherever possible. Hence, alongside the upcoming strategy targets around this aspect will also be included in future iterations.

Key measures here include engaging with residents to encourage behaviour changes around this minimisation and increase in recycling rate, along with providing the supporting infrastructure to do so.

367 The majority waste which is not recycled is currently incinerated, to generate energy as this is a marginally more sustainable alternative to landfill. However, it is certainly not the aim and is used as another last resort. It is also recognised that some outlying/unusual materials such as asbestos will never be fully recyclable or used for incineration, so 100% cannot be realistically achieved, however we can get very close and have moved this target forward to reflect our ambition here.

Waste generation & recycling related carbon emissions are not included in the BEIS datasets and are out of scopes 1 and 2. Hence, the savings are not included in the overall totals, but demonstrate the potential savings from such measures and their continued importance overall.

### Key Achievements this year:

- Overall, this year's total waste decreased to 71,624 tonnes, with the recycling rate rising to 54%. This totalled 38,852 tonnes of the overall amount, meaning 15,620.45 tonnes of CO<sub>2</sub> savings and 221.13 kgCO<sub>2</sub>e per household, a huge achievement. This is thanks to the below actions.
- Several successful campaigns and communications have been run.
- 14 champions developed, to identify and respond to issues quickly.
- Low participation food waste areas identified and targeted with straw pool observations and surveys to identify barriers.
- Engagement underway with developers to improve their provision of communal dwellings waste and recycling materials.

### Consumption Emissions:

- Per household an average of 0.55 tonnes of waste is being reused/recycled, against 0.46 tonnes of residual waste, with the majority going towards EfW (only 0.05tonnes to landfill). Within this household figure, it is estimated that for consumption emissions: 194.75 tCO<sub>2</sub>e arises from residual waste and 11.7 tCO<sub>2</sub>e arises from all the recyclables combined.

### Action Changes:

- Action 7.3.2 has been added, aiming to improve the awareness of recycling and its benefits within school children.
- Previous action 26 on contamination has been removed as it was explored and the decision made not to take it forward.
- Previous action 28 on incorporating carbon based savings targets has been removed from the table as it has been incorporated into the carbon savings column and methodology.

### SDGs:



REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
7.1	<b>Achieve 70% recycling target</b>				<b>45,271 tCO<sub>2</sub>e</b>	<b>TBC</b>	
7.1.1	<p><b>Implement a new waste and recycling collection system with improved facilities.</b></p> <p>Improved system in general facilitating this across all materials. Includes permanent solution to keeping paper and cardboard dry.</p>	<p>Following consultation, a full Waste Strategy will be devised and implemented which will focus on waste minimisation, a high recycling rate, improved quality of recycling and reduced collection/disposal costs and reduced carbon emissions. It will deliver an improved system in general, facilitating this across all materials.</p>	<ol style="list-style-type: none"> <li>1. Prepare consultants briefing, Options appraisal in early 2021, Market research and Decision making by end of 2021.</li> <li>2. Devise and adopt the communications plan by 2022</li> <li>3. Development of the Waste Strategy throughout 2022.</li> <li>4. Communication with residents pre-delivery.</li> <li>5. Delivery of new waste collection methods by March 2026 (three month).</li> <li>6. Ongoing communication with residents post delivery.</li> <li>7. Assess impact of the new initiative on the property stock.</li> <li>8. The council operations are included in this target.</li> </ol>	<p>New waste strategy process approved, to be complete by 2023, with a cross-party working group established to deliver this. Options including associated costs to be presented to members at next cross party working group.</p> <p>1<sup>st</sup> stage of consultations complete.</p> <p>Separating food waste and other initiatives at re3 WR Centres, such as rigid plastics.</p> <p>Council wise cardboard and cans are being recycled, along with separate food waste bins provided.</p>	Included in total	<p>Medium term</p> <p>Costs TBC</p>	
7.1.2	<b>Improve residents' engagement with waste</b>	Weekly customer email to	<ol style="list-style-type: none"> <li>1. Weekly email to prompt residents on presenting their waste / recycling.</li> </ol>	A number of successful campaigns and	7,395 tCO <sub>2</sub> e	Short term	

REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
359	<p><b>and recycling initiatives via partner Green Redeem.</b></p> <p>Increased communication with residents. Increase in gardening and allotment interest may lead to greater garden waste recycling, food waste and composting opportunities.</p> <p>Going forward people have started to give more to charity shops and find ways to re-use/sell unwanted items rather than disposing of them, while also being more selective of waste on the whole, so as to not overload general waste when limited disposal is available.</p>	<p>subscribers and monthly targeted campaigns to coincide with council's services and initiatives to increase the level of participation in recycling and improve the accuracy of recycling materials. Alongside greater awareness amongst residents about environmental issues.</p>	<ol style="list-style-type: none"> <li>2. Waste reduction campaign by GreenRedeem.</li> <li>3. Climate Change Emergency campaigns.</li> <li>4. Promote and prompt residents to renew Garden Waste.</li> <li>5. Promote online bulky waste collection service.</li> </ol>	<p>communications have been run in this area and continue to do so.</p> <p>Residents reminded via email and in other communication to renew their service. 11% of annual recycling amount now coming from this service.</p> <p>Planned food waste comms campaign to celebrate what has been done so far, making more of a social norm.</p> <p>Campaigns in May focusing on zero waste, community gardens, littering, repair cafes and soft plastics.</p> <p>Significant increase in users in March</p>		<p>£252,480</p> <p>(£31,560 per annum)</p>	

REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
7.13 093	<p><b>Target low participation areas to increase food waste tonnage to increase participation above 70%.</b></p> <p>Low participation areas likely low in all aspects so identification can allow for focus and communication on all recycling.</p> <p>Likely will lead to greater food security/reduced inequality due to more donations of excess.</p> <p>Also greater health as residents able to purchase cheaper veg and items in general under shop excess schemes.</p> <p>Opportunity for communication in delivery.</p>	<p>Improve uptake in food waste recycling to increase food waste tonnage, hence reducing loss of recyclable material.</p>	<ol style="list-style-type: none"> <li>1. Veolia to identify areas where FW recycling requires improvement (completed).</li> <li>2. Veolia to give tonnage reports from vehicles rounds to help identify progress and localities requiring improvements. Subject to having the capacity and RBs sign off to this request.</li> <li>3. JA to take straw poll of FW food waste participation to ensure meets 50% figure being used.</li> <li>4. Ticker system use to be investigated to identify in more detail areas requiring support with FW.</li> <li>5. Letters to be sent out to Residents in low participation areas.</li> <li>6. Build up a network of recycling champions made up of residents (10 per quarter). Residents raising concerns or complaints about the service will be targeted as they have demonstrated a concern and care about recycling issues in their area.</li> <li>7. Increase FW &amp; Recycling signage in communal bin stores - Create Signage to promote food waste recycling as well as general recycling. Assess 10/15 sites per quarter through site visits and contact with</li> </ol>	<p>List of 6 target areas and specific roads identified by Veolia as the worst performing on food waste. Also using ACORN map to identify areas of deprivation to ensure this process is representative, while communal areas are included. The same areas will see multiple visits over a month to ensure repeat quality data. Straw polls have been undertaken in key areas, with mixed results in areas varying with income levels.</p> <p>Letters sent out to those with low participation rates.</p> <p>14 champions in total, to identify and respond to issues quickly. Some reports from these already which have</p>	<p>36,805 tCO<sub>2</sub>e</p>	<p>Short term</p> <p>Costs TBC</p>	

REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
			<p>champions and increase signage accordingly.</p> <p>8. Food waste directed from blue bags to food caddys to save funds against financial plan.</p>	<p>been investigated and addressed.</p> <p>More red bins added to stores for communal areas.</p>			
361 7.1.4	<p><b>Increase &amp; improve facilities for glass recycling.</b></p> <p>Supports wider glass usage in goods, meaning less plastic.</p> <p>Kerbside collections also means less travel for residents.</p>	<p>Increase capture rate of glass from general waste through introduction of 50 new specific recycling sites and kerbside collections at sheltered accommodation, making it more convenient for residents and reducing loss of recyclable material.</p>	<ol style="list-style-type: none"> <li>1. Identify potential new specific and sheltered sites by communicating with parishes &amp; town councils and other private businesses &amp; partners such as FCC.</li> <li>2. Install bottle banks once approved and communicate this with site management and residents.</li> <li>3. Providing kerbside glass collection at sheltered accommodation.</li> </ol>	<p>Glass expected to move to kerbside collection following environment bill.</p>	1,070 tCO <sub>2</sub> e	<p>Medium term</p> <p>Costs TBC</p>	
7.1.5	<p><b>Proactive approach to partner with housing developers to deliver waste management facilities in new developments.</b></p>	<p>Provide good waste and recycling facilities and communicate the system to new residents in new</p>	<ol style="list-style-type: none"> <li>1. Contact Developers to ensure they have access to the guidance document for providing waste &amp; recycling facilities for single and communal dwellings.</li> </ol>	<p>All developers in WBC database have been sent the 'W&amp;R Guidance for Developers' document.</p>	Neutral as applies to future	<p>Long term</p> <p>Costs TBC</p>	

REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
362	<p>Opportunity to induce better recycling habits amongst new residents. Home working means more domestic waste so this needs to be accounted for in planning.</p> <p>May lead to requests for upgrades for existing homes.</p> <p>Designing this optimally from the start will save time and costs on collections.</p>	<p>developments. Leading to greater recycling rates and quality.</p>	<p>2. Establish relationships with sales offices as well as site managers &amp; directors of communal dwellings to further establish that the proper W&amp;R materials are in place and appropriate for new residents moving in.</p>	<p>Open Dialogue with Bewley Homes sales office for Equestrian Walk, along with First Port and Burford Court to improve their provision of communal dwellings waste and recycling materials for Jasmin Square and regarding resident engagement in FW &amp; Recycling efforts.</p> <p>Contact to improve provision with managing agents and developers continues to take place, Metropolitan Thames Valley Housing, Sage Housing, Trinity Estates and many others.</p>	developments		
7.2	<b>3% of total waste going to landfill</b>				<b>8,046 tCO<sub>2</sub>e</b>	<b>TBC</b>	
7.2.1	<b>Identify, establish &amp; deliver necessary measures to achieve zero waste to landfill from domestic properties.</b>	Reuse, recycle and recover 100% of WBC waste from domestic properties by	<p>1. Comprehensive communications campaign on "Reuse" and "Appropriate Recycling" including website, social media, GreenRedeem and target campaigns to divert as</p>	Ongoing campaigns and actions are significantly contributing towards a reduction in waste to landfill.	8,046 tCO <sub>2</sub> e	<p>Long term</p> <p>Costs TBC</p>	

REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
363	<p>More land available for other uses such as renewable energy.</p> <p>Going forward people have started to give more to charity shops and find ways to re-use/sell unwanted items rather than disposing of them, while also being more selective of waste on the whole, so as to not overload general waste when limited disposal is available.</p>	<p>moving waste up the waste hierarchy and increasing potential savings from landfill diversion.</p>	<p>much recycles from waste as possible.</p> <ol style="list-style-type: none"> <li>2. Tagging contamination recycling and leave uncollected.</li> <li>3. Identify alternate markets for hard to recycle items.</li> </ol>	<p>Consultation regarding enforcement is ongoing. We receive less contamination through the use of bags, and once more settled after covid disruption will be progressed further via tagging.</p> <p>Combustion has been identified as one potential avenue of energy generation to minimise existing fossil fuel use. 22770 tonnes of borough waste going to EfW (so only 6% to landfill), provided 12.68 gWh this year.</p>			



REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
7.2.2 364	<p><b>Engage school children in recycling via Green Team &amp; Youth Council. Improve awareness of recycling and its benefits in school children.</b></p> <p>These suggestions may be passed on to the parents and wider family.</p> <p>It will have a long-term benefit by embedding the ideas early.</p>	<p>Deliver events and material to support schools in increasing awareness and knowledge of waste and recycling, as part of a wider climate emergency programme towards this demographic.</p>	<ol style="list-style-type: none"> <li>1. Speak about the circular economy at the Youth Council climate change themed event &amp; link it to the borough's waste &amp; recycling practices, introducing the circular economy. Include an activity for participants (September).</li> <li>2. Develop activities for primary school aged children. A Wokingham waste &amp; recycling themed board game designed as an activity for teachers to use in-between curriculum topics with the aim activity to gamify waste and recycling (for primary school aged children).</li> </ol>	<ol style="list-style-type: none"> <li>1. Completed – Foundry contacted after this asking for follow up discussion.</li> <li>2. Not Started</li> </ol>	Included in total	<p>Short term</p> <p>Nil</p>	

## New Development

### Annual Carbon Savings: Neutral as applies to future development.

With increasing need for new homes, including from government requirements, it is essential this service is provided, alongside supporting infrastructure, businesses and council requirements. However, it is vital not to repeat past mistakes, in order to minimise the overall long-term cost of reaching net zero (with retrofit much more expensive retroactively).

Therefore, by using this information, combined with industry knowledge, government policy and proper planning, guidelines and requirements are being established within actions in this section, to ensure high standards are met across all aspects of new development construction which minimise the aforementioned demand side from new homes. These are therefore preventative targets, with neutral savings against the 2030 goal.

Key challenges in this area will be convincing developers to be ambitious and push these targets, as much can be achieved in this area with their support, due to the lack of government policy and regulation in this area. Therefore engagement and cooperation with numerous parties is vital here, including Development Management and Delivery, Building Control, Developers, Housing Associations and the highways authority, as well as consulting with the local community and stakeholders.

The majority of these actions are currently included within, or revolve around the local plan update, which has been progressed significantly with consultants. This will provide the framework to support additional actions.

The council responded to a consultation on the Future Home Standards to ensure the ability for Local Plans to set higher energy performance standards for all new homes. The government has set out plans to radically improve the energy performance of new homes, including low carbon heating and being zero carbon ready by 2025. These homes are expected to produce 75-80% lower carbon emissions compared to current levels. Existing homes will also be subject to higher standards, making homes warmer and reducing bills.

### Key Achievements this year:

- Ruscombe draft neighbourhood plan consultation complete and will proceed to next stage of examination.
- £84m in funding collected from developers – see below.
- Local Plan – Revised Growth Strategy Consultation complete and analysis of main issues underway and will inform future stages.
- Carnival Hub measures implemented to improve efficiency.

### Consumption Emissions:

- The construction industry is very material focused and thus, has a high level of consumption emissions associated, though these emissions are out of scope.

### New Actions:

- Previous Action 28.2 has been incorporated into 8.1.2 as both will be covered by the supplementary planning document
- Previous Action 32.2 has been moved to 4.1 for Gorse Ride, with remaining future projects incorporated into 8.6.1

### SDGS:



REF	Action / Co - Benefits	Description / Outcome	Milestone	Current Status	Carbon Savings	Timescale / Total Cost	RAG
8.1	<b>Towards the end of 2023, major residential development to be designed and built to achieve carbon neutrality.</b>				<b>Neutral</b>	<b>TBC</b>	
8.1.1	<p><b>Require major residential development to achieve carbon neutrality.</b></p> <p>A chance for Wokingham Borough Council to take the lead and set an exemplar approach.</p> <p>Cheaper future operational costs for residents.</p>	<p>Policy within the new Local Plan will require residential developments of 10 or more dwellings to provide carbon neutral homes. A definition of what carbon neutral means in this context will be provided.</p> <p>Where there is robust evidence that this cannot be achieved on site, the council proposes to accept appropriate carbon offset financial contributions.</p>	<ol style="list-style-type: none"> <li>1. Prepare climate change evidence base in support of the Local Plan Update (LPU). This will be a key part of evidencing the requirements set out in the draft plan and will contribute towards the goals relating to new development in the CEAP.</li> <li>2. Consult on draft policy as part of the Draft Local Plan.</li> <li>3. Publish draft policy as part of the Pre-Submission Local Plan.</li> <li>4. Policy included within adopted Local Plan.</li> </ol>	<p>This is being incorporated into the local plan update.</p> <p>Climate change evidence currently being finalised. Evidence will inform improvements to Draft policy.</p> <p>Draft Local Plan Consultation and analysis of main issues relating to policy wording complete. Representations received will inform future stages.</p>	Neutral	Short term  Nil	
366							
8.1.2	<p><b>Provide guidance to support major residential and non-residential development to achieve carbon neutrality.</b></p> <p>Greater clarity to developers and homeowners.</p>	<p>A Supplementary Planning Document (SPD) will support the new Local Plan by providing additional detail on how development of all types is expected to demonstrate the achievement of the policy requirements, including carbon neutrality. The SPD will itself be subject to consultation and</p>	<ol style="list-style-type: none"> <li>1. Consult on draft Supplementary Planning Document.</li> <li>2. Adopt Supplementary Planning Document.</li> </ol>	<p>This is to follow on from, and provide additional detail to, the Local Plan Update.</p>	Neutral	Medium term  Nil	

REF	Action / Co - Benefits	Description / Outcome	Milestone	Current Status	Carbon Savings	Timescale / Total Cost	RAG
		formally adopted, following the local plan.					
<b>8.2</b>	<b>From 2023, major non-residential development to be designed and built to achieve the BREEAM excellent standard.</b>				<b>Neutral</b>	<b>Nil</b>	
<b>8.2.1</b> 367	<b>Require major non-residential development to achieve BREEAM excellent standard.</b>  Clarity and consistency using internationally recognised standard.	BREEAM is an internationally recognised certification scheme. It provides a holistic set of criteria to support the delivery of energy efficient developments, which are resilient to the impacts, and mitigate the effects, of climate change. Development proposals will be expected to demonstrate how they have met this standard (or future equivalent) as a minimum.	<ol style="list-style-type: none"> <li>1. Prepare climate change evidence base in support of the Local Plan Update (LPU). This will be a key part of evidencing the requirements set out in the draft plan and will contribute towards the goals relating to new development in the CEAP.</li> <li>2. Consult on draft policy as part of the Draft Local Plan (complete).</li> <li>3. Publish draft policy as part of the Pre-Submission Local Plan.</li> <li>4. Policy included within adopted Local Plan.</li> </ol>	<p>This is being incorporated into the local plan.</p> <p>Climate change evidence currently being finalised. Evidence will inform improvements to Draft policy.</p> <p>Draft Local Plan Consultation and analysis of main issues relating to policy wording complete. Representations received will inform future stages.</p>	Neutral	Short term  Nil	
<b>8.3</b>	<b>Establish a spatial strategy and design framework which promotes active and sustainable travel, sustainable design and construction and enables biodiversity gain.</b>				<b>Neutral</b>	<b>Nil</b>	
<b>8.3.1</b>	<b>Minimise unnecessary travel from new development, better house design for working from home and better integrated IT capability.</b>	The new Local Plan will establish a spatial strategy which secures a pattern of development which allows for more people to live and work where journeys can be undertaken by walking, cycling and public transport.	<ol style="list-style-type: none"> <li>1. Consult on draft policy as part of the Draft Local Plan.</li> <li>2. Publish draft policy as part of the Pre-Submission Local Plan.</li> <li>3. Policy included within adopted Local Plan.</li> </ol>	<p>This is incorporated into the local plan.</p> <p>Local Plan Revised Growth Strategy Consultation complete and analysis</p>	Neutral	Short term  Nil	

REF	Action / Co - Benefits	Description / Outcome	Milestone	Current Status	Carbon Savings	Timescale / Total Cost	RAG
	<p>Residents will be more likely to choose active transport over cars as adults, health benefits from exercise, rather than private car. People have embraced local green spaces.</p> <p>Increased time freedom due to lack of commute also increases adoption of active transport methods.</p>	Buildings, services and infrastructure need to be able to respond to new working patterns and needs.		of main issues currently being undertaken and will inform future stages.			
368 8.3.2	<p><b>Require development, including the public realm, to be accessible to all and prioritise walking, cycling and other sustainable modes of transport.</b></p> <p>Residents will be more likely to choose active transport over cars as adults, health benefits from exercise, rather than private car. People have embraced local green spaces.</p> <p>Increased time freedom due to lack of commute</p>	Development will be expected to include measures to make walking and cycling the mode of choice for shorter journeys, both within and through the site, including links to facilities, services, bus stops and train stations. They will be designed so that they are easily navigable for people of all ages and physical ability.	<ol style="list-style-type: none"> <li>1. Consult on draft policy as part of the Draft Local Plan.</li> <li>2. Publish draft policy as part of the Pre-Submission Local Plan.</li> <li>3. Policy included within adopted Local Plan.</li> </ol>	<p>This is incorporated into the local plan.</p> <p>Draft Local Plan Consultation and analysis of main issues relating to policy wording complete. Representations received will inform future stages.</p>	Neutral	<p>Short term</p> <p>Nil</p>	

REF	Action / Co - Benefits	Description / Outcome	Milestone	Current Status	Carbon Savings	Timescale / Total Cost	RAG
	also increases adoption of active transport methods.						
8.3.3	<p><b>Require allocations for major development to secure smart and sustainable approaches that champion climate change resilience and adaptation.</b></p> <p>Potential to provide exemplary new developments at scale which can facilitate wider green and energy infrastructure improvements</p>	<p>Buildings, services and infrastructure need to be able to respond to the impacts of climate change. Part of this ability relates to ensuring that new development is designed to adapt to more intense rainfall, the possibility of flooding, plus heat waves and droughts.</p> <p>The design of developments, including the use of materials, must consider matters such as shading, insulation and ventilation, surface water runoff and storage and the use of appropriate tree and other planting.</p>	<ol style="list-style-type: none"> <li>1. Consult on draft policy as part of the Draft Local Plan.</li> <li>2. Publish draft policy as part of the Pre-Submission Local Plan.</li> <li>3. Policy included within adopted Local Plan.</li> </ol>	<p>This is incorporated into the local plan.</p> <p>Draft Local Plan Consultation and analysis of main issues relating to policy wording complete. Representations received will inform future stages.</p>	Neutral	Short term  Nil	
8.3.4	<p><b>Provide positive policy framework for retrofitting existing buildings.</b></p> <p>Limitations in the role of planning policy and decision making to influence existing buildings, but highlighting a permissive approach will</p>	<p>Existing domestic buildings contribute around 34% of carbon dioxide emissions from within Wokingham Borough, whilst existing non-domestic buildings contribute around 20%. A permissive policy approach to retrofitting the existing building stock with measures that enhance sustainability and energy</p>	<ol style="list-style-type: none"> <li>1. Consult on draft policy as part of the Draft Local Plan.</li> <li>2. Publish draft policy as part of the Pre-Submission Local Plan.</li> <li>3. Policy included within adopted Local Plan.</li> </ol>	<p>This is incorporated into the local plan.</p> <p>Draft Local Plan Consultation and analysis of main issues relating to policy wording complete. Representations received will inform future stages.</p>	Neutral	Short term  Nil	

REF	Action / Co - Benefits	Description / Outcome	Milestone	Current Status	Carbon Savings	Timescale / Total Cost	RAG
	assist in raising the profile of retrofit.	efficiency will assist in reducing emissions.					
<b>8.4</b>	<b>Support low carbon and renewable energy generation.</b>				<b>Neutral</b>	<b>Nil</b>	
<b>8.4.1</b>	<p><b>Provide positive policy supporting low carbon and renewable energy generation.</b></p> <p>Greater clarity and assurance to local groups and businesses wishing to support renewable energy schemes in their areas.</p>	<p>Due to the benefits which low carbon and renewable energy generation bring to tackling climate change, development proposals for these will be supported unless there are unacceptable impacts that outweigh the benefits.</p> <p>An increase of renewable energy generation projects being developed across the Borough by local businesses and community energy groups.</p>	<ol style="list-style-type: none"> <li>1. Consult on draft policy as part of the Draft Local Plan.</li> <li>2. Publish draft policy as part of the Pre-Submission Local Plan.</li> <li>3. Policy included within adopted Local Plan.</li> </ol>	<p>This is incorporated into the local plan.</p> <p>Draft Local Plan Consultation and analysis of main issues relating to policy wording complete. Representations received will inform future stages.</p>	Neutral	Short term Nil	
<b>8.5</b>	<b>From 2023, all new residential and non-residential buildings to be designed and built to be EV ready.</b>				<b>Neutral</b>	<b>Nil</b>	
<b>8.5.1</b>	<p><b>Ensure new developments make adequate provision for EV. Make all new houses electric vehicle ready by establishing requirements for EV charging points in new dwellings as described in the EV strategy.</b></p>	<p>Electric and hybrid vehicle ownership is increasing, and likely to become more prevalent. Lack of charging infrastructure is a principal barrier to increased use of low-emissions vehicles. Therefore, all new developments will be expected to design in electric vehicle charging facilities from the outset.</p>	<ol style="list-style-type: none"> <li>1. Consult on draft policy as part of the Draft Local Plan.</li> <li>2. Publish draft policy as part of the Pre-Submission Local Plan.</li> <li>3. Policy included within adopted Local Plan.</li> <li>4. Developers to be informed of policy and requirements shall be listed in planning application</li> </ol>	<p>This is incorporated into the local plan.</p> <p>Draft Local Plan Consultation and analysis of main issues relating to policy wording complete. Representations received will inform future stages.</p>	Neutral	Short term Nil	



REF	Action / Co - Benefits	Description / Outcome	Milestone	Current Status	Carbon Savings	Timescale / Total Cost	RAG
371	<p>Improved air quality, reduce NOx, PM10s, PM25, cheaper to maintain and run, better driving experience. Also supports more constant energy usage for overall lower emissions from production.</p> <p>Despite covid and traditional car sales declining in the pandemic, EV sales have risen across the board.</p>	<p>Establish the requirement for EV charging point infrastructure for new dwellings in the Borough where appropriate. Make sure that new homes planning applications submitted from 2023 and where appropriate, have a charge point available. This will ensure there is no barrier for new homeowners or occupants of new dwellings to own or leased an electric vehicle. Developers will have to ensure there is sufficient power serving their developments.</p>	<p>5. New developers to ensure that there is sufficient power serving new developments.</p> <p>6. 100% new buildings are EV ready from 2022</p>				
8.6	<b>From 2021 100% of council new development is built to carbon neutral standards</b>				<b>Neutral</b>	<b>TBC</b>	
8.6.1	<p><b>All new council properties non-residential will be built to the highest efficiency standards from 2021.</b></p> <p><b>All new council homes will be built to the highest efficiency standards by 2024.</b></p> <p>A chance for Wokingham Borough Council to take the lead and set an exemplar approach.</p>	<p>Consult on all future council builds and engaged with developers to ensure that carbon neutrality is considered from the design stage and associated cost is identified.</p> <p>The new development has been placed with a consultant to look at carbon neutrality and associated build costs.</p> <p>Net zero carbon standards to be considered for all new developments. Move away from</p>	<p>1. Initial assessment to all new council development to assess stage of development and possible interventions to committed buildings</p> <p>2. Assessment of possible interventions to Dinton Activity Centre, Arborfield School, carnival hub leisure centre and apartments, 75 London road, Toutley care home, and Addington Scheme, among others.</p> <p>3. Contact providers.</p>	<p>Dinton Activity Centre construction complete to become boroughs first net zero building.</p> <p>Carnival hub assessment complete and measures implemented to improve efficiency. Carnival apartments reassessed and expected to be net zero, primarily</p>	Neutral	<p>Medium term</p> <p>Nil</p>	

REF	Action / Co - Benefits	Description / Outcome	Milestone	Current Status	Carbon Savings	Timescale / Total Cost	RAG
372	Provide more efficient, warmer buildings, with cheaper running costs.	'gas provision' to cleaner technology for new build properties when possible.	<ol style="list-style-type: none"> <li>4. Agree program of works.</li> <li>5. Implement viable measures.</li> <li>6. Monitor performance to inform future, further and wider work.</li> </ol>	<p>through PV generation.</p> <p>Peach place Three and Old boys school schemes currently on hold – grant received for latter to implement efficiency measures once work resumes.</p> <p>75 London Road housing scheme work completed with carbon saving measures implemented.</p> <p>Initial stages of planning underway for Toutley care home.</p>			

## Procurement

### Annual Carbon Savings: Neutral as applies to future procurement.

Within these external targets, the council recognises its ability to influence certain elements through its own procurement processes, utilising its scale, power and presence to establish requirements for a low-carbon economy.

This will be achieved by encouraging our chosen suppliers to improve their own sustainability measures, prioritising those who have done so where possible, through implementing policies which incorporate this as a requirement/criteria in overall decision making processes. Doing so will also set an example for others, demonstrating the viability of such actions and outlining our commitment to enacting them ourselves, and so also achieving the goals of the wider plan.

For example, with a number of significant contracts and strategies set to expire or be reviewed before the 2030 goal, these opportunities will be utilised to review and improve the sustainability elements of these services, by incorporating such into the official tender processes.

Engaging and negotiating with our large range of suppliers will be key to this goal, with many required due to the scale of our essential operations, whether through contracts to provide external services, supporting operations or supplying goods/services directly to council sites. All of these suppliers must be approved via strict official and documented procurement process, whether through an approved supplier network or tender application system.

It also covers training staff on this topic and other methods through which CE is being embedded into the governance and decision making within the council. This is primarily through an assessment tool which assists staff in identifying the potential impacts of projects and how they can potentially mitigate these.

Therefore, carbon savings here are neutral as they apply to future procurement or are captured in other existing actions. Also, with global aspects increasingly impacting worldwide supply chains, WBC recognises the significance of social value and will be prioritising it within these procurement targets.

### Key Achievements this year:

- Staff CE E-learning module to be uploaded to site.
- Procurement Strategy published, which will inform many other actions.
- CE has been embedded into existing project management tools.
- Temporary CE risk assessment tool applied to Exec Papers

### Consumption Emissions:

- This includes all goods purchased and used by the council which come with their own consumption emissions. These are not currently reported as they are scope 3 emissions, but we are moving towards measuring and reducing our scope 3 emissions as a business going forward.

### New Actions:

- The old actions 34.3 and 33.5 have been removed as identical to new action 9.2.3.

### SDGS:



REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
9.1	<b>By 2022, achieve sustainable procurement practice throughout the council as part of Corporate Procurement Strategy</b>				Neutral	Nil	
9.1.1	<p><b>Include a drafted approach to sustainable procurement within review of Procurement Strategy.</b></p> <p>Opportunity to identify cost savings from greater efficiency and minimal waste.</p>	<p>Goods contracts will consider whole-life costing including disposal.</p> <p>Service and works contracts will include carbon neutrality or reduction measures either directly or indirectly by their design.</p> <p>Procuring in line with business needs and climate emergency targets.</p>	<ol style="list-style-type: none"> <li>1. Draft update to procurement strategy.</li> <li>2. Seek consultation of strategy with SLT.</li> <li>3. Achieve sign off of strategy.</li> <li>4. Implementation and communication of strategy with CEM.</li> </ol>	<p>Strategy approved July 2021.</p> <p>Procurement board to be put in place.</p>	Neutral	Short term  Nil	
374 9.1.2	<p><b>Develop a sustainable procurement culture and associated skills for green procurement.</b></p> <p>Will encourage consideration of wider objectives to be incorporated, such as planting trees or implementing cycle lanes simultaneously in projects.</p>	<p>Design of an e-learning module training people in green procurement techniques.</p>	<ol style="list-style-type: none"> <li>1. Complete E-learning design.</li> <li>2. All staff in council who procure to complete training on CE.</li> </ol>	<p>CE E-learning module to be uploaded to site.</p> <p>Coaching feasibility study underway.</p>	Neutral	Medium Term  Nil	
9.1.3	<p><b>Assess suppliers on sustainable procurement standards.</b></p> <p>Encourages competition between suppliers, which may generate other</p>	<p>Evaluation of all suppliers to promote sustainability proportionate to contract and financial constraints.</p> <p>Use of the Standard SQ / inclusion of a pass/fail phase in all contract evaluations.</p>	<ol style="list-style-type: none"> <li>1. All buyers/ commissioners in the council to impose carbon targets on our suppliers including reporting back of carbon production.</li> <li>2. All buyers/ commissioners taking embedded carbon into account</li> </ol>	Not Started	Neutral	Medium Term  Nil	

REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
	benefits in terms of efficiency and cost savings.  Has a knock on effect as this supplier will now be more competitive for wider contracts.		when purchasing goods and services.  3. Performance Team to name the top 20 carbon producers from our suppliers.				
3751.4	<b>Implementation of sustainable procurement KPIs amongst suppliers.</b>  Will incorporate more stakeholders and viewpoints, allowing for wider objectives to be incorporated, such as planting trees or implementing cycle lanes simultaneously in projects.  Supports local residents and businesses, developing skills in these key areas.	Contracts have sustainability KPIs included where suitable to contracts scope and will be performing within the 'green' threshold (or equivalent) for these KPIs.	<ol style="list-style-type: none"> <li>1. Consult with stakeholders, including local and national business during the development of council's sustainable procurement policy through a consultation event.</li> <li>2. All buyers/commissioners embed carbon KPI targets into all suitable council contracts.</li> <li>3. Provide clear and detailed instructions to suppliers on the council's sustainability requirements.</li> <li>4. Investigate opportunities from big businesses to train SME and VCSE in bid writing, social value etc.</li> </ol>	Not Started	Neutral	Medium term  Nil	
9.2	<b>By 2023, the council will consider social value, including carbon neutrality, in all its procurement cycles</b>				Neutral	Nil	
9.2.1	<b>Introducing a culture of carbon neutrality in all council procurement activities.</b>  Will incorporate more stakeholders and	For environmental social value, include carbon impact into the council's principal business activities, relevant to project's scope, risk and value:	<ol style="list-style-type: none"> <li>1. All buyers/commissioners ensure that the corporate strategy themes of carbon neutrality is embedded in each procurement cycle.</li> </ol>	Climate Risk Assessment tool for embedding under assessment. Already in place for project	Neutral	Short term  Nil	

REF	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
	viewpoints, allowing for wider objectives to be incorporated, such as planting trees or implementing cycle lanes simultaneously.  May also identify cost saving opportunities.	Business Needs Analysis and Case Approval. Contract and Specification Design. Bid Submission Evaluations. Contract and Supplier Management.		management sizing tool.  Temporary CE risk assessment tool applied to Exec Papers.			
9.2.2	<b>Adopt a WBC Social Value Policy</b>  Supports people and particularly vulnerable populations around the globe.	Generation of a WBC Social Value policy, linking to corporate procurement strategy.	<ol style="list-style-type: none"> <li>1. Draft social value policy.</li> <li>2. Consult with businesses and SLT</li> <li>3. Implement communication of policy via CEM.</li> </ol>	Not Started	Neutral	Medium term  Nil	
9.2.3	<b>Promote local skills and employment</b>  Supports local residents and businesses, reducing unemployment.  Develops local skills for long term careers.	Where appropriate, locally-based suppliers will be used for all direct award and quotation processes, leading to reduce carbon impact from logistics and travel where compliant.  Improve Skills for low carbon transition, including supporting those in traditional 'high carbon industries to retrain.	<ol style="list-style-type: none"> <li>1. All buyers / commissioners to impose SME/local supply targets on suppliers including reporting back of SME/local supplier subcontracting and carbon reduction.</li> <li>2. Performance Team name the top 20 suppliers supporting scheme.</li> </ol>	Not Started	Neutral	Medium term  Nil	

# Engagement and Behaviour Change

## Annual Carbon Savings: Neutral as per below

WBC recognises it cannot reach the ambitious 2030 goal alone, with many of the above actions throughout the plan requiring support from our residents, businesses, schools and community organisations in shifting to more sustainable behaviours.

This section outlines some of these specific measures which will support this process, focusing on promoting and accelerating the shift by raising awareness of the existing situation and impacts, along with providing examples and opportunities for change.

Doing so will require working in partnership with all stakeholders, including businesses, community and voluntary organisations, schools and young people, Town and Parish councils, council colleagues and residents more generally to encourage the uptake of technologies, initiatives and schemes outlined in previous sections.

Hence, the actions here will feed into the carbon savings achieved elsewhere on this action plan, such as increased use of public transport, as well as reducing out of scope emissions from purchases of goods and services. The majority of the actions are therefore listed as 'Neutral' for their carbon savings against the 2030 target.

The government's Build Back Better strategy will enable more policy and mean more opportunities will become available for businesses at a local level, particularly in promoting the green sector. Both of these opportunities will be thoroughly built into the upcoming Climate Emergency Engagement & Behaviour Change Strategy. The intention is to develop and implement an engagement and behaviour change strategy that is specifically targeted towards tackling the climate emergency and will dictate the actions within this section of the plan going forward, once approved and published.

### Key Achievements this year:

- Lets Talk Climate sessions organised and run, with external facilitator.
- The climate emergency newsletter continues to be successful, with over 3,500 subscribers.
- Market engagement has been undertaken with multiple organisations to identify opportunities for optimal public engagement, with a pilot scheme under development.
- Green Team achieved a monthly internal newsletter article each month in 2021.

### Consumption Emissions:

- The engagement targets below are to reduce overall carbon footprints of our residents which includes all 3 scopes of emissions, including indirect or 'consumption' emissions which includes out of borough travel, goods and services purchased, food choices etc.

### New Actions:

- There are no new actions in this section of the CEAP.

### SDGS:





REF	Action / Co - Benefits	Description /Outcomes	Milestone	Progress	Carbon Savings	Timeline / Total Cost	RAG
10.1	<b>Raise awareness in the community about the climate emergency agenda</b>				<b>Neutral</b>	<b>TBC</b>	
378.1.1	<p><b>Implement a Wokingham Borough Council Climate Emergency Engagement &amp; Behaviour Change Strategy.</b></p> <p>Ensures that all voices are heard and accounted for.</p> <p>Develops relationships with numerous stakeholders.</p>	<p>Ensure there is a long-term plan for the delivery of sustained communication with all stakeholders in the borough needed to tackle the climate emergency, including residents, businesses, young people, council staff and the Town and Parish Councils.</p>	<ol style="list-style-type: none"> <li>Options appraisal to inform on different engagement methods.</li> <li>Complete a visioning project (Let's Talk Climate) to allow for residents, businesses, community organisations and young people to envisage how a net zero carbon borough will look in 2030.</li> <li>Investigate behaviour change barriers.</li> <li>Develop a programme available for residents to shift to more sustainable choices and be rewarded for forming these new habits.</li> <li>Draft the Climate Emergency Engagement &amp; Behaviour Change Strategy for approval at Council. This includes completion of an Equality Impact Assessment to measure the potential impacts on all members of the community.</li> <li>Consult with community-based organisations and town &amp; parish council's on the strategy.</li> <li>Support Town and Parish councils to share best practice and lessons learned to set out a</li> </ol>	<p>The community deliberative process on climate change is a wide community engagement process. The project is currently coming to the end of the first stage where key stakeholders came together in 'deliberative peer groups' to discuss key issues of local climate change impacts and potential solutions and form recommendations for the council to adopt into its CEAP. These groups were:</p> <ul style="list-style-type: none"> <li>Residents x2</li> <li>Businesses</li> <li>Community groups &amp; voluntary sector</li> <li>Teachers</li> <li>Primary School-aged children (plus a parent)</li> <li>Secondary school-aged children</li> <li>Town &amp; Parish council clerks</li> <li>Council Officers</li> </ul> <p>The next stage is an e-panel (similar to an online survey) to allow a wider group of residents</p>	Neutral	<p>Medium Term</p> <p>£46,000</p>	

			path to net zero carbon in their own operations, where possible.	can give feedback on these recommendations. The final report of the outcomes and recommendations from this are to go to council Autumn 2022.		
379 10.1.2	<p><b>Actively communicate the progress of the climate emergency initiatives delivered borough-wide.</b></p> <p><b>Provide and share information with residents on how to reduce their carbon emissions.</b></p> <p>Develops relationships with residents to be a trusted provider.</p>	<p>Develop a sustained campaign to provide information, advice, and signposting to promote behavioural change amongst residents to drive engagement with council initiatives.</p> <p>Encourage residents with opportunities to improve energy performance of homes and buildings, reduce carbon emissions from transport, adopt new behaviours.</p>	<ol style="list-style-type: none"> <li>1. Set up a resident climate emergency newsletter to promote the actions the council are taking and focus on how individual actions can make a big difference.</li> <li>2. Deliver a campaign to businesses on COP26.</li> <li>3. Ensure climate emergency messaging is intertwined with comms plans for projects sat within the climate emergency action plan across the council, such as transport, waste and development projects.</li> </ol>	<p>The climate emergency newsletter is now well underway, with multiple useful iterations produced and delivered, including a monthly spotlight to provide encouragement and demonstrate viability for others. As of April 2022, there are 4,675 subscribers to the newsletter.</p> <p>Articles are published regularly on the council website: <a href="https://news.wokingham.gov.uk/">https://news.wokingham.gov.uk/</a></p> <p>A number of articles on COP26 have been included in the business matters newsletter, with strong feedback, along with a summary update included in the upcoming business directory.</p> <p>This action plan itself is published annually with progress updates.</p>	Neutral	<p>Short term</p> <p>Nil</p>
10.1.3	<p><b>Provide communication support to promote sustainable</b></p>	<p>Develop a sustained communications campaign to provide information, advice, and signposting to</p>	<ol style="list-style-type: none"> <li>1. Align engagement campaigns to the climate emergency programme designed for schools and deliver engagement campaigns to inspire children</li> </ol>	<p>The council promotes it's offering to schools relating to climate emergency through several channels including Education News (weekly newsletter) and the</p>	Neutral	<p>Short term</p> <p>Nil</p>

380	<p><b>action taking place in schools.</b></p> <p>Develops relationships with numerous stakeholders.</p> <p>Long term benefits of children being more active on these issues, along with passing it across to parents.</p>	<p>promote behavioural change amongst schoolchildren and staff and giving more background to link the action to the climate emergency.</p> <p>Residents of the borough will gain a better understanding of why school children and staff are making sustainable changes and will be better informed of how this can be applied to their own lifestyle.</p>	<p>and school staff to adopt new behaviours.</p>	<p>My Journey and Air Quality Active Travel Officer social media pages.</p> <p>We will continue to work to build and strengthen relationships with schools around climate change issues.</p>			
	<p><b>10.1.4 Support changes in work practices and behavioural change amongst council staff.</b></p> <p>Healthier staff living more sustainable lifestyles.</p> <p>Reducing the council's own</p>	<p>Wokingham Borough Council staff to be better informed of their impact as an organisation and how to drive this impact down through projects and communications, providing information, advice &amp; signposting to promote behavioural change amongst council employees (e.g. active and sustainable</p>	<ol style="list-style-type: none"> <li>1. Deliver a sustained communications campaign through the council's Green Team to inspire staff to reduce their personal carbon footprints by making sustainable shifts in their daily routines.</li> <li>2. Investigate and promote the carbon footprint of Wokingham Borough Council as an organisation and workplace and how individual actions of staff contribute towards this.</li> <li>3. Communicate environmental benefits and carbon savings of</li> </ol>	<p>Internal comms articles continue on key issues, including a Together Again staff newsletter to encourage colleagues to maintain 'greener' habits formed during home working.</p> <p>Coaching feasibility study underway.</p>	Neutral	Short term Nil	

	carbon footprint as an organisation.	travel, increased plant based food).	the Workplace Reimagined project to ensure staff are fully informed. 4. Investigate a behaviour change platform for business use.				
381 10.1.5	<p><b>Support changes in work practices and behavioural change amongst local businesses.</b></p> <p>Develops relationships with numerous stakeholders and identifies the council to be a trusted provider.</p> <p>Potential for economic benefits from green recovery and build back better schemes.</p>	<p>Provide information, advice, signposting to promote sustainable behaviours amongst local businesses (e.g. remote working, retrofitting buildings, solar PV installation).</p> <p>Promote working from home practices to reduce the proportion of staff at corporate sites for more efficient use of the space.</p> <p>Ensure the climate emergency action plan is fully aligned with the Wokingham Borough Council's Economic Recovery Strategy and the government's plan for a Green Recovery, which focuses on enabling local business to Build Back Better.</p>	<ol style="list-style-type: none"> <li>1. Host events to stimulate the conversation around sustainability in business between the council and the business community.</li> <li>2. Ensure the conversation is kept going through regular climate emergency articles in the Business Matters newsletter.</li> <li>3. Engage with providers to gather information on what more can be done with businesses.</li> <li>4. Assessment of unintended consequences from the national lockdown (COVID-19) and the effects to energy consumption and site occupancy of corporate sites.</li> <li>5. Incorporate into the Climate Emergency Engagement &amp; Behaviour Change Strategy.</li> <li>6. Provide monthly spotlights for businesses to demonstrate real actions they can take from people in a similar position.</li> </ol>	<p>The CE newsletter is now well underway, with multiple useful iterations and delivered, including a monthly spotlight to provide encouragement and demonstrate viability for others.</p> <p>A number of articles on COP26 have been included in the business matters newsletter, with strong feedback, along with a summary update included in the upcoming business directory.</p> <p>Market engagement has been undertaken with multiple organisations to identify opportunities for optimal public engagement, with a pilot scheme under development.</p> <p>The council held its second Climate Conversations event successfully. A virtual webinar-style event with a discussion panel of local experts. The theme was 'Carbon Footprinting. Further conversations are pending once capacity is expanded.</p>	Neutral	Short term  Nil	

## Current Council Emissions 2021/22

Within the wider borough target the council aims to lead the way on helping deliver neutrality, by improving its own operations, to become a net zero carbon organisation by carbon 2030. This currently applies to scope 1+2 emissions where the council has direct accountability and can have the most impact through solutions, though scope 3 elements are also taken into account where it is possible for the council to utilise its influence. Going forward, as a business we will begin measuring and targeting a reduction in scope 3 emissions.

Carbon savings from this section are therefore primarily already accounted for in the above actions and figures. The only exception is action 11.3, which is noted separately in the overall summary on page 9.

To measure progress to become carbon neutral the council calculates its gross emissions through the Local Authority GHG Accounting Tool<sup>2</sup>, which applies standard emissions factors to usage figures and is designed specifically for authorities. Hence, all targets which impact on these figures have been moved to this section, to outline how they are being addressed.

Within this tool the following scopes for emissions are defined for businesses/councils:

### Scope 1 and 2:

Direct emissions produced by sources which are owned or controlled by the council and include electricity use, burning oil or gas for heating, and fuel consumption from business travel or distribution. This therefore includes streetlighting for the council, though this is not a direct result of operations.

### Scope 3:

Indirect emissions produced by external factors but as a result of council operations and consumption. This includes elements such as staff commuting, contractors, waste production and working from home.

### Emissions Summary:

Scope	Emissions Type	Emissions (tCO2e)	Percentage of Total Emissions
Scope 1	Heating	5,668.51	50.7%
	Fugitive Emissions	0.00	0.0%
	Authority's Fleet	46.57	0.4%
Scope 2	Electricity	4,688.47	42.0%
Scope 3	Staff Business Travel	271.16	2.4%
	Outsourced Fleet	2.56	0.0%
	Transmission & Distribution Losses	414.75	3.7%
	Water	14.38	0.1%
	Material Use	0.00	0.0%
	Waste generated from own operations	68.25	0.6%
	Outsourced Scope 3	0.00	0.0%
Total Emissions		11,174.65	100%
Green Tariff Electricity		(-)3,516.35	
Final Emissions		7,658.29	

This is the first year (2021/22) which these figures have been fully accounted for. Due to some irregularities in figures available with the time lag in reporting, some of the months have been estimated based on previous years, to find the best annual estimate for this period.

<sup>2</sup> <https://localpartnerships.org.uk/greenhouse-gas-accounting-tool/>

By using this tool, it creates a summary table, shown below, which identifies the totals and percentages. This therefore highlights key areas of major emissions, so these can then be targeted with relevant actions. Currently the council emits approximately 7.6 ktCO<sub>2</sub>e, which represents only 1.36% of the boroughs total. From this summary it is clear that there are 3 main areas of emissions for the council: Energy, Transport and Waste.

A brief explanation on the sources of the emissions contributing to each of these areas is provided in the below analysis, along with the actions which have already been outlined regarding council operations specifically. These actions will help address nearly all of the council's carbon emissions and contribute to reducing emissions district wide by 2030. These actions are currently being run and monitored in the same manner as those in the CEAP.

COVID disruption has had a significant impact on all of these areas, as explained below. Therefore, these figures are not fully representative of the council's usual emissions at this stage and are anticipated to change noticeably in future reports.

## Current Council Actions:

### Transport:

Due to Covid-19 and the resulting lockdowns, the vast majority of council staff have been working from home where possible, and will continue to do so for the foreseeable future, thanks to the continued positive results achieved and the results from the workplace reimaged survey confirming optimal working patterns. This has been an unexpected positive and means this aspect is well ahead of target, leading to a drastic drop in transport emissions for the council.

However, elements remain, primarily from the use of council owned or private vehicles for council work, representing a total of 271.16 tCO<sub>2</sub>e across all scopes. Staff commuting figures fall under outsourced scope 3. In response, as explained fully in the below table, the council is currently working to replace all of its own fleet with ultra-low emission vehicles by 2028, along with a number of actions to encourage staff to reduce their mileage and utilise EVs for business purposes and commuting where possible, to reduce emissions by 70%.

### Waste:

In 2021/22 the council produced approximately 190 tonnes of waste, of which 46 tonnes was recycled, as shown below. This waste is collected separately to domestic waste and includes those from council run public facilities such as libraries, leisure centres and community centres. Therefore, initiatives here not only focus on council staff, but improving responses from the public through making recycling more accessible and clear.

Type	Amount	tCO <sub>2</sub> e
Glass	2	0.04
Commercial Waste	144	67.25
DMR (Dry Recyclables)	44	0.93

Council targets for waste are aligned with the CEAP and therefore aims for a 70% recycling rate by 2030. This includes new practices already in place, such as the implementation of a zero single use plastics policy in staff areas, along with increased separation of food waste and dry recyclables.

### Buildings and Energy:

As the scope in this report now includes all council run sites, not just offices, this now represents by far the largest area of emissions, directly contributing 92.7% and 10,365.99 tCO<sub>2</sub>e across all scopes. By excluding

streetlighting, which the council has lower direct influence over, this figure would fall to 9,640.24 tCO<sub>2</sub>e.

For this calendar year these figures are also above usual levels due to covid disruption, as protocols on leaving windows open for circulation has led to increased heating and energy usage overall, meaning this is anticipated to fall once these procedures are removed. In response, as explained fully in the plan, the council is currently implementing a wide range of energy efficiency improvements at all owned properties, towards carbon neutral standards by 2028, which will also apply to new builds.

Meanwhile, the council is also working towards sourcing as much electricity as possible from green tariffs, with 75% of the current electricity purchased coming from these sources across the period. This means 3,516.35 tCO<sub>2</sub>e of these emissions would be negated in this respect. Therefore, the remaining total council emissions would be 7,658.29 tCO<sub>2</sub>e, as shown above.

This is supported by additional significant investment in renewable energy sources including the solar farm, along with renewable energy installations in council buildings when feasible, to ensure capacity is available.

#### **Engagement and Behavioural Change – Green Team:**

Overall, the council is committed to supporting changes in work practices and behavioural change amongst council staff, which covers not just the above key aspects, but all elements where possible.

To this end, the council also has an internal green team of officers from all across the council, who are interested in driving sustainable shifts in the council as a workplace. This group is in addition to the council's Climate Emergency team, volunteering their time to gather regularly and assess progress in this area, providing new ideas on potential improvements in sustainability for internal practices. These projects and ideas, which often

also help staff minimise their impact at home too, are included in regular internal communications.

Minor actions developed here are not included in the full plan for simplicity, but include clear signage around the offices to remind staff on printing, heating and lighting usage, waste etc, along with the removal of single use cups and improvement of internal procurement processes. Meanwhile, any ideas which are developed into larger ideas are discussed with the relevant teams and included in the full plan where viable. Therefore, new actions may continue to be added to this plan.

#### **Procurement:**

The council is committed to achieving sustainable procurement practice throughout our operations and, as part of Corporate Procurement Strategy, to consider social value in all its procurement cycles, with a number of actions to support this, as shown in the below tables.

#### **Carbon Sequestration:**

While minimising emissions is top priority to the council, following the energy hierarchy, carbon sequestration is an important element in contributing towards net zero, by increasing the amount of carbon absorbed and so effectively, taken away from the total amount emitted. The council has committed to plant 250,000 trees by 2025, which would sequester approximately 3,100 tCO<sub>2</sub>e per year. This accounting tool does not include a section for these figures as this is accounted as a borough wide target.



TR	Action / Co - Benefits	Description / Outcome	Milestones	Current Status	Carbon Savings	Timescale / Total Cost	RAG
11.1	<b>Leading by example - Reduce by 70% CO2e emissions produced by council related travel by 2030</b>				<b>892.21 tCO<sub>2</sub>e</b>	<b>TBC</b>	
11.1.1	<p><b>Deliver a strategy to reduce miles produced by council staff work related travel.</b></p> <p>Sets example so other actions more likely to be followed</p>	<p>To investigate the possibility to introduce EV Car clubs for council staff between Monday to Friday and with the option to open to the public during the weekends. Aiming to reduce grey fleet miles by 30% from transport related trips.</p>	<ol style="list-style-type: none"> <li>1. Carry out assessment for car clubs and produce a strategy</li> <li>2. Analyse saving from Mileage paid to staff vs cost paid to provider</li> </ol>	<p>Feasibility study underway with Energy Savings Trust (EST) to assess council fleet vehicles and grey miles.</p>	<p>78.31 tCO<sub>2</sub>e</p> <p>(Included in total)</p>	<p>Medium term</p> <p>Costs TBC</p> <p>Nil from strategy itself</p>	
385 11.1.2	<p><b>Promote homeworking and remote working practices amongst council staff.</b></p> <p>Lockdown has greatly sped up this process and meant that everyone is doing it so integrates more easily with any partners. Sets example so other actions more likely to be followed.</p>	<p>In addition to home working, expand remote working practices in other locations to reduce unnecessary travel and the need for central office accommodation. Aiming to reduce the CO2 emissions travelled from council staff to work by 40% by 2022.</p>	<ol style="list-style-type: none"> <li>1. Capitalise on the unintended consequences of the national lockdown by reviewing working from home practices in the council and consider new ways of working in the recovery plan for the council.</li> <li>2. Deliver a staff survey to assess working from home preferences amongst council staff.</li> </ol>	<p>Managers have discussed the need for and preferences of home or flexible working patterns with staff, completing the required surveys.</p> <p>Only those staff required will be coming into the office at this stage.</p> <p>The workplace reimagined survey is complete and will likely support this further.</p>	<p>405.42 tCO<sub>2</sub>e</p>	<p>Short term</p> <p>Nil</p>	
11.1.3	<b>Incentivise council staff to mode shift</b>	Investigate incentives that can be given to council staff	<ol style="list-style-type: none"> <li>1. Carry out an assessment of viability of salary</li> </ol>	Assessment of salary sacrifice schemes underway as part of		Medium term	

	<p><b>to active and sustainable transport or EVs.</b></p> <p>Increased time freedom due to lack of commute also increases adoption of active/sustainable transport methods. Sets example so other actions more likely to be followed.</p>	<p>to support their commute to work being more sustainable by implementing schemes that make such methods more accessible. Aiming to reduce the CO2 emissions from staff travelling to work by 10% by 2025.</p>	<p>sacrifice schemes that could be offered to council employees for sustainable transport or EVs.</p> <ol style="list-style-type: none"> <li>2. Assess alternative transport options for council staff.</li> <li>3. Communicate these options and advice to relevant staff on how to reduce their commuting emissions.</li> </ol>	<p>wider council transition to EV plan.</p> <p>Feasibility study underway for a Liftshare scheme to analyse employee commuting patterns and car-share or active/sustainable travel opportunities.</p>	<p>304.06 tCO<sub>2</sub>e</p>	<p>£10,000</p>	
<b>11.2</b>	<b>Council's car fleet becomes entirely ultra-low emission by 2028</b>				<b>TBC</b>	<b>TBC</b>	
386	<p><b>Ensuring 100% of the car fleet operated by the council is ultra-low emission by 2028</b></p> <p>Helps set the example by leading the way. Opportunity for communication with non-EV private users.</p>	<p>Leading the way by transitioning the 16 WBC owned and leased vehicles to EV or low carbon vehicles at the end of their leasing contract/life. Vehicles range from minibuses, cars and a tractor in Dinton Pastures.</p>	<ol style="list-style-type: none"> <li>1. Deliver the programme to transition WBC owned vehicles to be ultra-low vehicles by 2028.</li> <li>2. Review lease contracts and establish a programme for transitioning leased vehicles to EV when engaging in new contracts.</li> <li>3. Embed requirements for EV's or Low Emission vehicles in WBC Fleet Guidelines Policy and WBC Vehicle</li> </ol>	<p>Feasibility study underway with Energy Savings Trust (EST) to assess council fleet vehicles and grey miles.</p>	<p>45.39 tCO<sub>2</sub>e (This is included in target 5 savings total)</p>	<p>Medium term</p> <p>Costs TBC</p>	

			<p>Procurement Guidelines.</p> <p>4. Update the Vehicle Procurement Application form to include the consideration of EV's or Low Emission vehicles as a standard with no sign off from the Board for any vehicle that does not meeting this requirement.</p>			
387	<p><b>All council run operations, including through partners, to utilise EV or ultra-low emissions vehicles.</b></p> <p>Improved air quality, reduce NOx, PM10s, PM25, cheaper to maintain and run, better driving experience. Also supports more constant energy usage for overall lower emissions from production.</p>	<p>Ensuring all our contractors use ultra-low or EV when possible will reduce emissions from contractors and suppliers vehicles working for and in partnership with the council. This includes Education and Social Care transport providers to encourage/specify transition to ultra-low vehicles for use on HTST transport.</p> <p>50% (which exceeds the statutory minimum of 35%) contract transport fleet will be hybrid or fully electric by 2028.</p>	<p>1. Include in procurement policies considerations for EV/ultra-low emission vehicles as a standard.</p> <p>2. All buyers/commissioners to apply contractual policies when subcontracting services</p> <p>3. Review the contracts with our transport providers and establish requirements to transition to ultra-low emissions vehicles</p> <p>4. Optimise HTST routes to reduce mileage</p>	<p>To be incorporated into EV strategy such that consideration must be made for climate issues, including EV, as part of the procurement process for projects.</p>	<p>Included in total</p>	<p>Long term</p> <p>Costs TBC</p>

11.3	By 2030 All council CCS buildings will be retrofitted to carbon neutral standards				6,612 tCO <sub>2</sub> e	TBC	
<p style="text-align: center;">3 103.1 8</p>	<p><b>Improve energy performance of council owned buildings to carbon neutral standards.</b></p> <p>Reduce cost of energy bills. Support more jobs in the green and sustainability industries. Emerging of new supply chains for building efficiency will reduce the cost of the green technologies such as heath pumps, batteries, solar panels, etc.</p>	<p>Implement a wide range of energy efficiency projects at existing properties to improve energy efficiency. These include, installing LED lighting, Cavity Wall, loft insulation etc., all to make the property ‘consume’ less energy.</p> <p>Programme for retrofitting corporate assets based on energy performance baseline and energy improvement requirements.</p>	<ol style="list-style-type: none"> <li>1. Establish baseline energy performance for each council-owned asset.</li> <li>2. Three year assessment, average kilowatt value (FY from 2017-20)</li> <li>3. Develop Energy Management Plan</li> <li>4. Identify energy performance improvement requirements to all corporate sites and recorded in the Corporate Assets Carbon Reduction Database.</li> <li>5. Programme for asset retrofit set up</li> <li>6. Feasibility assessment on Woodley Library as a pilot project.</li> <li>7. Establish guidelines of energy improvements that can be used for all corporate assets.</li> <li>8. Deliver the retrofitting programme.</li> </ol>	<p>Baselines and three year assessment complete.</p> <p>Energy Management Plan in development.</p> <p>Feasibility assessment on Woodley Library as a pilot project completed.</p>	<p>6,612 tCO<sub>2</sub>e</p>	<p>Medium term</p> <p>£13.5M (£4.5M per year)</p>	

## Appendix 1. Data Sources

Table 5: Summary GHG inventory table of building emissions, as split by SCATTER

SUB-SECTOR	DIRECT tCO <sub>2</sub> e	INDIRECT tCO <sub>2</sub> e
Residential buildings	187,968.61	78,875.18
Commercial buildings & facilities	11,254.16	42,841.08
Institutional buildings & facilities	8,831.41	9,301.94
Industrial buildings & facilities	32,229.12	52,294.99
Agriculture	2,804.37	0.52
Fugitive emissions	23,738.05	-
On-road	305,851.95	IE
Rail	11,438.37	IE
Waterborne navigation	NO	IE
Aviation	NO	IE
Off-road	3,058.52	IE
Solid waste disposal	6,664.21	-
Biological treatment	NO	-
Incineration and open burning	NO	-
Wastewater	9,888.15	-
Industrial process	44,871.97	-
Industrial product use	0.00	-
Livestock	9,383.60	-
Land use	-15,861.55	-
Other AFOLU	NE	-
Electricity-only generation	NO	-
CHP generation	132.57	-
Heat/cold generation	NO	-
Local renewable generation	2.01	NO
Notation keys:		
NO - Not Occurring	IE - Integrated Elsewhere	NE - Not Estimated

Table 6: Summary GHG inventory table of building emissions, as split by BEIS

Wokingham Carbon footprint 557 KtCO <sub>2</sub> e	KtCO <sub>2</sub> e
Industry and Commercial Electricity	74.5
Industry and Commercial Gas	39.9
Large Industrial Installations	0.01
Industrial and Commercial Other Fuels	15.8
Agriculture	4.1
Domestic Electricity	59
Domestic Gas	186.9
Domestic 'Other Fuels'	10.8
Road Transport (A roads)	76.7
Road Transport (Minor roads)	97.7
Transport Other	9.7
LULUCF Net Emissions	-17.4

• BEIS data (right-hand table) and SCATTER data are compiled using different methodologies. The SCATTER model (Setting City Area Targets and Trajectories for Emissions Reductions) operates on 2018 data. BEIS data is from 2019. See page 52 for further notes on why the data differs between SCATTER & BEIS.

### Data Sources – Frequently Asked Questions

#### What do the different emissions categories mean within the Scatter inventory?

Direct = GHG emissions from sources located within the Local Authority Boundary (also referred to as Scope 1). For example petrol, diesel or natural gas.

Indirect = GHG emissions occurring as a consequence of the use of grid-supplied electricity, heat, steam and/or cooling within the city boundary (also referred to as Scope 2).

Other = All other GHG emissions that occur outside the city boundary as a result of activities taking place within the city boundary (also referred to as Scope 3). This category is not complete and only shows sub-categories required for CDP / Global Covenant of Mayors reporting. Other Scope 3 emissions are however explored within Sections 2 and 3.

The BEIS Local Emissions Summary does not differentiate between direct/indirect/other (or the various 'scopes')

### **What do the different sectors and subsectors represent within the SCATTER Inventory?**

- The Direct Emissions Summary and Subsector categories are aligned to the World Resource Institute's Global Protocol for Community-Scale Greenhouse Gas Emission Inventories ("GPC"), as accepted by CDP and the Global Covenant of Mayors.
- The BEIS Local Emissions Summary represents Local Authority level data published annually by the Department for Business Energy & Industrial Strategy (BEIS).
- Stationary energy includes emissions associated with industrial buildings and facilities (e.g. gas & electricity).
- IPPU specifically relates to emissions that arise from production of products within the following industries: Iron and steel, Non-ferrous

metals, Mineral products, Chemicals. These are derived from DUKES data (1.1-1.3 & 5.1).

- Waterborne Navigation and Aviation relate to trips that occur within the region. The figures are derived based on national data (Civil Aviation Authority & Department for Transport) and scaled to the City of Oxford region.

### **Why does the BEIS summary differ from the SCATTER summary?**

- The BEIS summary represents CO2 only; SCATTER also includes emissions factors for other greenhouse gases such as Nitrous Oxide (N2O) and Methane (CH4). These are reported as a CO2 'equivalents (e)'.
- The BEIS summary does not provide scope split; SCATTER reports emissions by scope 1, 2, and 3 (i.e. direct, indirect or other categories).
- The BEIS summary categories are not directly consistent or mapped to the BEIS LA fuel data which is available as a separate data set. SCATTER uses published fuel data and applies current-year emissions factors, whereas the BEIS data calculations scale down national emissions in each transport area. Specifically with regard to road transport, BEIS data splits total emissions across road type; SCATTER uses fuel consumption for on-road transport per LA.
- Different treatment of 'rural' emissions i.e. Agriculture, Forestry and Other Land Use (AFOLU) and Land Use, Land Use Change & Forestry (LULUCF) categories are derived from different underlying data sets and have been explored further within section 3 of this report.

## Appendix 2. Glossary

<b>Term</b>	<b>Definition</b>
<b>Carbon Baseline</b>	The year against which target decreases in emissions are measured. <sup>3</sup>
<b>Carbon dioxide (CO<sub>2</sub>)</b>	Carbon dioxide is a gas in the Earth's atmosphere. It occurs naturally and is also a by-product of human activities such as burning fossil fuels. It is the principal greenhouse gas produced by human activity.
<b>Carbon Budget</b>	A tolerable quantity of greenhouse gas emissions that can be emitted in total over a specified time. The budget needs to be in line with what is scientifically required to keep global warming and thus climate change “tolerable.”
<b>Carbon dioxide equivalent (CO<sub>2</sub>e)</b>	Six greenhouse gases are limited by the Kyoto Protocol and each has a different global warming potential. The overall warming effect of this cocktail of gases is often expressed in terms of carbon dioxide equivalent - the amount of CO <sub>2</sub> that would cause the same amount of warming. For consistency in this climate emergency action plan, the figures on carbon dioxide emissions have been presented in tonnes <b>tCO<sub>2</sub>e</b>
<b>Carbon footprint</b>	The amount of carbon emitted by an individual, organisation, geographical area or during the manufacture of a product in a given period of time.
<b>Carbon neutral</b>	A process where there is no net release of CO <sub>2</sub> . For example, growing biomass takes CO <sub>2</sub> out of the atmosphere, while burning it releases the gas again. The process would be carbon neutral if the amount taken out and the amount

	released were identical. A company or country can also achieve carbon neutrality by means of carbon offsetting in limiting quantities not all together.
<b>Carbon offsetting</b>	A way of compensating for emissions of CO <sub>2</sub> by participating in, or funding, efforts to take CO <sub>2</sub> out of the atmosphere. Offsetting often involves paying another party, somewhere else, to save emissions equivalent to those produced by your activity.
<b>Carbon Sequestration</b>	The process of storing carbon dioxide. This can happen naturally, as growing trees and plants turn CO <sub>2</sub> into biomass (wood, leaves, and so on). It can also refer to the capture and storage of CO <sub>2</sub> produced by industry.
<b>Climate Change</b>	A pattern of change affecting global or regional climate, as measured by yardsticks such as average temperature and rainfall, or an alteration in frequency of extreme weather conditions. This variation may be caused by both natural processes and human activity. Global warming is one aspect of climate change.
<b>Climate Change Act (2008)</b>	At the core of the Act is the 2050 target to reduce UK greenhouse gas emissions by at least 80% relative to 1990, and the system of carbon budgets that provide five-year stepping stones to the 2050 target <sup>4</sup> . In 2019 this target was altered to achieve net zero emissions by 2050 <sup>5</sup> .
<b>Climate Emergency</b>	A situation in which urgent action is required to reduce or halt climate change and avoid potentially irreversible environmental damage resulting from it. <sup>6</sup>

<sup>4</sup> <https://www.theccc.org.uk/2014/03/04/the-climate-change-act-a-retrospective/>

<sup>5</sup> <https://commonslibrary.parliament.uk/insights/acting-on-climate-change-the-plan-for-net-zero-emissions-in-the-uk/#:~:text=Net%20zero%20is%20a%20statutory,emissions%20by%2080%25%20by%202050.>

<sup>6</sup> <https://www.oxfordlearnersdictionaries.com/>

<sup>3</sup> <https://www.bbc.co.uk/news/science-environment-11833685>



<b>Climate Emergency Declaration</b>	The recognition of the urgency of the Climate Emergency by organisations, businesses or government at any level, often resulting in setting a target date to become carbon neutral.
<b>The Committee on Climate Change (CCC)</b>	An independent, statutory body established under the Climate Change Act 2008 whose purpose is to advise the UK and devolved governments on emissions targets and to report to Parliament on progress made in reducing greenhouse gas emissions and preparing for and adapting to the impacts of climate change. <sup>7</sup>
<b>Decarbonise</b>	To replace fossil fuels as fuel source with a fuel that is less harmful to the environment such as solar power. See Renewable energy.
<b>Emission Trading Scheme (ETS)</b>	A scheme set up to allow the trading of emissions permits between business and/or countries as part of a cap and trade approach to limiting greenhouse gas emissions by businesses or countries buying or selling allowances to emit greenhouse gases via an exchange. The volume of allowances issued adds up to the limit, or cap, imposed by the authorities. The best-developed example is the EU's trading system, launched in 2005.
<b>Fossil fuels</b>	Natural resources, such as coal, oil and natural gas, containing hydrocarbons. These fuels are formed in the Earth over millions of years and produce carbon dioxide when burnt.
<b>Global warming</b>	The steady rise in global average temperature in recent decades, which experts believe is largely caused by man-made greenhouse gas emissions. The long-term trend continues upwards, even though the warmest year on record, according to the UK's Met Office, is 1998.

<sup>7</sup> <https://www.theccc.org.uk/about/>

<b>Grand-fathering</b>	A form of carbon budgeting which allocates a higher carbon budget to those organisations or regions, which emit at a higher levels. In other words, high emitting areas will be allowed to emit at higher levels than those with lower existing emissions.
<b>Greenhouse gases (GHGs)</b>	Natural and industrial gases that trap heat from the Earth and warm the surface. The Paris Agreement, following The Kyoto Protocol restricts emissions of six greenhouse gases: natural (carbon dioxide, nitrous oxide, and methane) and industrial (perfluorocarbons, hydrofluorocarbons, and sulphur hexafluoride).
<b>The Inter-governmental Panel on Climate Change (IPCC)</b>	A scientific body established by the United Nations Environment Programme and the World Meteorological Organization. It reviews and assesses the most recent scientific, technical, and socio-economic work relevant to climate change, but does not carry out its own research. The IPCC was honoured with the 2007 Nobel Peace Prize.
<b>Kyoto Protocol</b>	A protocol attached to the UN Framework Convention on Climate Change, which sets legally binding commitments on greenhouse gas emissions. Industrialised countries agreed to reduce their combined emissions to 5.2% below 1990 levels during the five-year period 2008-2012. It was agreed by governments at a 1997 UN conference in Kyoto, Japan, but did not legally come into force until 2005. A different set of countries agreed a second commitment period in 2013 that will run until 2020.
<b>Land Use, Land-Use Change, and</b>	Activities in this category provide a method of offsetting emissions, either by increasing the removal of greenhouse gases from the atmosphere (i.e. by planting trees or

<b>Forestry (LULUCF)</b>	managing forests), or by reducing emissions (i.e. by curbing deforestation and the associated burning of wood).
<b>Mitigation</b>	Action that will reduce man-made climate change. This includes action to reduce greenhouse gas emissions or absorb greenhouse gases from the atmosphere.
<b>Net zero carbon</b>	A target to achieving net zero carbon dioxide emissions by balancing carbon emissions with carbon offsets and/or eliminating carbon emissions altogether.
<b>Paris Agreement (2015)</b>	The Agreement's central aim is to strengthen the global response to the threat of climate change by 21 countries agreeing to keep the global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius <sup>8</sup> .
<b>Per-capita emissions</b>	The total amount of greenhouse gas emitted by a country per unit of population.
<b>Renewable energy</b>	Energy created from sources that can be replenished in a short period of time. The five renewable sources used most often are: biomass (such as wood and biogas), the movement of water, geothermal (heat from within the earth), wind, and solar.
<b>SCATTER</b>	Standing for Setting City Area Targets and Trajectories for Emissions Reductions, SCATTER is a local authority focussed emissions tool, built to help create low-carbon local authorities. SCATTER provides local authorities and city regions with the opportunity to standardise their greenhouse gas reporting and align to international frameworks, including

	the setting of targets in line with the Paris Climate Agreement.
<b>Tyndall Centre</b>	A partnership of universities bringing together researchers from the social and natural sciences and engineering to develop sustainable responses to climate change, working with leaders from the public and private sectors to promote informed decisions on mitigating and adapting to climate change <sup>9</sup> .
<b>The United Nations Framework Convention on Climate Change (UNFCCC)</b>	One of a series of international agreements on global environmental issues adopted at the 1992 Earth Summit in Rio de Janeiro. The UNFCCC aims to prevent "dangerous" human interference with the climate system. It entered into force on 21 March 1994 and has been ratified by 192 countries.

## Appendix 3. Sustainable Development Goals

<sup>8</sup> <https://unfccc.int/process-and-meetings/the-paris-agreement/what-is-the-paris-agreement>

<sup>9</sup> <https://tyndall.ac.uk/about>

The 2030 United Nations Agenda for Sustainable Development<sup>10</sup>, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are 17 Sustainable Development Goals (SDGs), which act as an urgent call for action to all countries - developed and developing – to work as a global partnership. They recognize that ending poverty and deprivation must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – at the same time as tackling climate change and working to preserve our oceans and forests.









### Wokingham Borough Council and the Sustainable Development Goals

The Local Government Association (LGA) passed a motion in July 2019 declaring a climate emergency. At the same time offering a unified voice for local government to assist in delivering the UN’s 17 Sustainable Development Goals (SDGs). In the table below each goal has been assigned an SDG number. For example, Good Health and Wellbeing is SDG3 and links back to the appropriate action in the Climate Emergency Action Plan demonstrating how Wokingham Borough are supporting the UN’s 17 Sustainable Development Goals.

Wokingham Borough Council recognises that, as a local authority, we are in the best position to raise awareness and to influence in the delivery of the Sustainable Development Goals.

No poverty SDG1	Although Wokingham is an affluent borough, we will work hard to ensure the Climate Emergency action plan creates a sustainable, carbon neutral economy that will achieve economic justice as well as economic growth.	
Zero hunger SDG2	As a rural borough, sustainable agricultural practice is of high importance as well as promoting sustainable eating in the borough through the action plan which focuses on cutting down on meat consumption.	
Good health and wellbeing SDG3	We will be encouraging sustainable transport such as cycling and converting to electric vehicles through our action plan to ensure we maintain our high level of well-being across the borough	
Quality of education SDG4	The youthful population are a large part of our action plan to meet our 2030 net zero carbon target and we aim to promote sustainable lifestyles throughout our schools and ensure we hear the voices of our children.	
Gender equality SDG5	We hope the women and girls in the borough will take part to make the action plan the most effective in everyday situations like reducing waste and single use plastics.	
Clean water and sanitation SDG6	There is a strong focus on reducing water waste in the Borough which will comply with the sustainable management of water targets sat beneath this SDG.	

<sup>10</sup> [Resolution adopted by the UN General Assembly on 25 September 2015.](#)

Affordable and clean energy SDG7	We are determined to roll out sustainable energy generating methods through the implementation of solar panels, particularly in our SDLs, which are both clean and affordable in the long term.		Responsible consumption and production SDG12	The themes of this goal are woven throughout the action plan to promote and encourage a change in lifestyle of the residents in the borough starting with the council staff through the work of the Green Team.	
Decent Work and economy growth SDG8	Wokingham Borough benefits from a below average unemployment rate and bringing more sustainable enterprises to the borough will only enhance our working population further.		Climate action SDG13	By working towards our 2030 net zero carbon borough target we have been able to put in place Officer groups and projects that reflect the targets under our action plan and enforce action to combat climate change.	
Industry, innovation and infrastructure SDG9	A large section of our action plan is dedicated to ensuring our new developments are net zero carbon through sustainable infrastructure and that we promote sustainable living within these new communities.		Life below water SDG14	Protecting bodies of water is essential as they are facilities for residents to enjoy in green space for non-polluting recreational activities	
Reduce inequalities SDG10	The UK suffers from vast disparities in wealth but this can also be seen on a local scale within the Borough. We aim to work the Climate Emergency action plan with economic development in mind to ensure we achieve economic equality throughout the borough.		Life on land SDG15	Protecting our greenspace as a rural borough is of huge significance and is reflected in the action plan, as we aim to preserve the land as a carbon sink or sustainably develop on land in a way that allows the whole borough to reap the sustainable rewards.	
Sustainable cities and communities SDG11	Wokingham Borough is lucky to have an existent community that is resilient, inclusive and safe. We aim to build on this and strengthen this through the action plan to promote the same characteristics for the communities created in the new developments.		Peace, justice and strong institutions SDG16	As an influential institution in the borough, we take our role in combating climate change very seriously and will show our respect of our communities through public consultation and incorporating resident's ideas throughout.	
			Partnerships for the goals SDG17	Creating partnerships are an essential aspect of our action plan, especially one which is tackling such a global problem. Partnerships, especially with the businesses in the borough, will allow us to achieve more.	

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