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WOKINGHAM
BOROUGH COUNCIL

A Meeting of the **CLIMATE EMERGENCY OVERVIEW AND SCRUTINY COMMITTEE** will be held in David Hicks 1 - Civic Offices, Shute End, Wokingham RG40 1BN on **TUESDAY 11 JULY 2023** AT **7.00 PM**

Susan Parsonage
Chief Executive
Published on 3 July 2023

The role of Overview and Scrutiny is to provide independent "critical friend" challenge and to work with the Council's Executive and other public service providers for the benefit of the public. The Committee considers submissions from a range of sources and reaches conclusions based on the weight of evidence – not on party political grounds.

Note: Non-Committee Members and members of the public are welcome to attend the meeting or participate in the meeting virtually, in line with the Council's Constitution. If you wish to participate either in person or virtually via Microsoft Teams, please contact Democratic Services. The meeting can also be viewed live using the following link:
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Our Vision

A great place to live, learn, work and grow and a great place to do business

Enriching Lives

- Champion excellent education and enable our children and young people to achieve their full potential, regardless of their background.
- Support our residents to lead happy, healthy lives and provide access to good leisure facilities to enable healthy choices for everyone.
- Engage and empower our communities through arts and culture and create a sense of identity for the Borough which people feel part of.
- Support growth in our local economy and help to build business.

Providing Safe and Strong Communities

- Protect and safeguard our children, young and vulnerable people.
- Offer quality care and support, at the right time, to reduce the need for long term care.
- Nurture our communities: enabling them to thrive and families to flourish.
- Ensure our Borough and communities remain safe for all.

Enjoying a Clean and Green Borough

- Play as full a role as possible to achieve a carbon neutral Borough, sustainable for the future.
- Protect our Borough, keep it clean and enhance our green areas for people to enjoy.
- Reduce our waste, promote re-use, increase recycling and improve biodiversity.
- Connect our parks and open spaces with green cycleways.

Delivering the Right Homes in the Right Places

- Offer quality, affordable, sustainable homes fit for the future.
- Ensure the right infrastructure is in place, early, to support and enable our Borough to grow.
- Protect our unique places and preserve our natural environment.
- Help with your housing needs and support people, where it is needed most, to live independently in their own homes.

Keeping the Borough Moving

- Maintain and improve our roads, footpaths and cycleways.
- Tackle traffic congestion and minimise delays and disruptions.
- Enable safe and sustainable travel around the Borough with good transport infrastructure.
- Promote healthy alternative travel options and support our partners in offering affordable, accessible public transport with good transport links.

Changing the Way We Work for You

- Be relentlessly customer focussed.
- Work with our partners to provide efficient, effective, joined up services which are focussed around our customers.
- Communicate better with customers, owning issues, updating on progress and responding appropriately as well as promoting what is happening in our Borough.
- Drive innovative, digital ways of working that will connect our communities, businesses and customers to our services in a way that suits their needs.

Be the Best We Can Be

- Be an organisation that values and invests in all our colleagues and is seen as an employer of choice.
- Embed a culture that supports ambition, promotes empowerment and develops new ways of working.
- Use our governance and scrutiny structures to support a learning and continuous improvement approach to the way we do business.
- Be a commercial council that is innovative, whilst being inclusive, in its approach with a clear focus on being financially resilient.
- Maximise opportunities to secure funding and investment for the Borough.
- Establish a renewed vision for the Borough with clear aspirations.

MEMBERSHIP OF THE CLIMATE EMERGENCY OVERVIEW AND SCRUTINY COMMITTEE

Councillors

Andy Croy	Chris Johnson	David Cornish
Michael Firmager	Norman Jorgensen	Graham Howe
Catherine Glover	Ian Pittock	Charles Margetts

Substitutes

Andrew Mickleburgh	Jane Ainslie	Anne Chadwick
Andrew Gray	Pauline Helliar-Symons	Laura Blumenthal
Alistair Neal	Rachelle Shepherd-DuBey	Shahid Younis

ITEM NO.	WARD	SUBJECT	PAGE NO.
12		**APOLOGIES** To receive any apologies for absence.	
13		**DECLARATION OF INTEREST** To receive any declarations of interest.	
14		**MINUTES OF PREVIOUS MEETING** To confirm the Minutes of the meeting held on 23 May 2023.	**5 - 12**
15		**PUBLIC QUESTION TIME** To answer any public questions. A period of 30 minutes will be allowed for members of the public to ask questions submitted under notice. The Council welcomes questions from members of the public about the work of this Committee. Subject to meeting certain timescales, questions can relate to general issues concerned with the work of the Committee or an item which is on the Agenda for this meeting. For full details of the procedure for submitting questions please contact the Democratic Services Section on the numbers given below or go to www.wokingham.gov.uk/publicquestions	
	151	Peter White has asked the Chair of the Committee the following question: Is the aim of WBC to have Wokingham Borough be net zero in 2030 or carbon neutral in 2030? I am asking because I saw in a scrutiny committee document reference to carbon neutral.	
16		**MEMBER QUESTION TIME** To answer any Member questions.	

17	None Specific	**WBC CLIMATE EMERGENCY ACTION PLAN (CEAP) - FOURTH PROGRESS REPORT** To consider the fourth progress report on the Council's Climate Emergency Action Plan (CEAP) prior to its submission to Council in September 2023.	**13 - 178**
18		**WORK PROGRAMME 2023-24** To consider the Committee's Work Programme for 2023/24. Work Programme items to be identified after discussion of the CEAP progress report.	

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MINUTES OF A MEETING OF THE
CLIMATE EMERGENCY OVERVIEW AND SCRUTINY COMMITTEE
HELD ON 23 MAY 2023 FROM 7.00 PM TO 9.30 PM

Committee Members Present
Councillors: David Cornish, Andy Croy (Chair), Norman Jorgensen and Rachelle Shepherd-DuBey

Other Councillors Present
Councillors: Andrew Mickleburgh, Pauline Helliar-Symons, Lindsay Ferris, Paul Fishwick and Sarah Kerr

Officers Present
Ian Bellinger, Service Manager for Growth & Delivery
Neil Carr, Democratic and Electoral Services Specialist
Andrew Collins, Specialist Climate Emergencu Officer
Robert Curtis, Transport Planning Team Manager
Ian Gough, Energy Manager
Rhian Hayes, Assistant Director, Economic Development & Growth

12 ELECTION OF CHAIR
The Committee elected a Chair for the 2023/24 Municipal Year.

RESOLVED: That Andy Croy be elected as Chair of the Committee for the 2023/24 Municipal Year.

13 APPOINTMENT OF VICE-CHAIR
The Committee appointed a Vice-Chair for the 2023/24 Municipal Year.

RESOLVED: That Chris Johnson be appointed Vice-Chair of the Committee for the 2023/24 Municipal Year.

14 APOLOGIES
Apologies for absence were submitted by Michael Firmager and Chris Johnson.

Pauline Helliar-Symons and Al Neal attended the meeting as substitutes.

15 MINUTES OF PREVIOUS MEETING
The Minutes of the meeting of the Committee held on 14 March 2023 were confirmed as a correct record.

16 PUBLIC QUESTION TIME
There were no public questions.

17 MEMBER QUESTIONS
There were no Member questions.

18 PROGRESS AGAINST TASK & FINISH GROUP RECOMMENDATIONS
The Committee considered a report, set out at Agenda pages 11 to 32, which gave details of progress against the recommendations of the Climate Emergency Task and Finish Group (2020 and 2021).

Sarah Kerr, Executive Member for Climate Emergency and Resident Services, attended the meeting to present the report and answer Member questions. Councillor Kerr noted that she had been a member of the second Task and Finish Group (2021).

The report stated that, in July 2019, Wokingham Borough Council declared a climate emergency and committed to do as much as possible to achieve carbon neutrality by 2030. Following the declaration, the Council published a Climate Emergency Action Plan (CEAP), in January 2020. In February 2020, the Overview and Scrutiny Management Committee established a Task and Finish group to review the Wokingham Borough Climate Emergency Action Plan and provide recommendations improvement.

Following completion of the Task and Finish Group review, in July 2020, the Group proposed 14 recommendations to strengthen the CEAP and make the reporting process more transparent. Another review of the CEAP by the Task and Finish Group took place in early 2021. This review focused on four key elements of the CEAP: transport, homes, renewable energy and behaviour change. The Group received evidence from internal and external individuals representing the Council, Imperial College London, University of Leeds, National Grid, Giki Zero, University of Reading, Reading Buses, and the Executive Member for Climate Emergency. The results of the review, including 25 recommendations, were presented to the O&S Management Committee in July 2021.

This report included an update on the progress made against the 2020 and 2021 Task and Finish Group recommendations. A summary progress update was presented in the report together with additional officers updates have been included in Appendix 1. It was noted that the recommendations were made in reference to the first and second iterations of the Council's Climate Emergency Action Plan (CEAP). All of the Task and Finish Group recommendations were found to be still relevant to the delivery of the current CEAP.

In the ensuing discussion, Members raised the following points:

The 2020 Task and Finish Group recommendations referred to the need for strengthening of the in-house Climate Emergency team to ensure that increasing complex issues could be addressed effectively. It was confirmed that the team consisted of one manager and three officers. Moreover, the team had no budget of its own with which to tackle projects. Delivery of the CEAP depended on various in-house teams so it was essential that the CEAP was embedded across every Council service. The Climate Emergency team also looked to find alternative funding sources such as Government grants. The lack of statutory powers was limiting factor in relation to funding.

The report referred to the emerging Climate Emergency Communication and Engagement Plan. When would this plan be shared with Scrutiny Members? It was confirmed that the plan should be ready for consideration at the next meeting of the Committee in July 2023.
What progress had there been in relation to the roll-out of solar panels for schools in the Borough? It was confirmed that 70% of local schools currently had solar panels, with plans for further additions.

Could solar panel be introduced into car parks across the Borough? It was confirmed that opportunities were being explored but the challenge was to achieve suitable grid connections. The Council was lobbying hard on this issue.

The 2020 report included a recommendation on the development of a methodology to measure the carbon impact of key decisions. What progress was there? It was confirmed that an impact assessment tool had been developed and was currently being trialled by two teams prior to roll-out across the organisation.

RESOLVED That:

1) Sarah Kerr and the supporting officers be thanked for attending the meeting to present the report and answer Member questions;

2) the emerging Climate Emergency business strategy be submitted to a future meeting of the Committee;

3) officers be requested to work with other Berkshire councils to lobby the Government about “green skills” shortages and the appropriate strategies to address them;

4) the Committee supports the Task & Finish Group recommendation relating to an independent carbon audit of the Climate Emergency Action Plan and refers this matter to the Audit Committee for comment;

5) officers be congratulated on the significant progress made in implementing the Task & Finish Group recommendations.

19 CEAP AND THE LOCAL PLAN UPDATE

The Committee considered a report, set out at Agenda pages 33 to 44, which gave details of the actions taken within the Local Plan Update (LPU) to embed the Council’s Climate Emergency Action Plan (CEAP).

Lindsay Ferris (Executive Member for Planning and the Local Plan) attended the meeting to introduce the report and answer Member questions, supported by Ian Bellinger (Service Manager for Growth and Delivery).

The report reminded Members that the Council was currently preparing an update to its planning policies, known as the Local Plan Update (LPU). The LPU was being prepared in the context of existing national planning policy, guidance and legislation. Its principal aim was to set out the strategy and associated policies for managing future development in the Borough.

To date, the Council had consulted on two draft strategies for the new local plan – the Draft Local Plan in 2020 and the Revised Growth Strategy in 2021 to. Key evidence based studies had been and continued to be developed to support the LPU. The LPU’s approach to the spatial strategy – where development will and will not go to accommodate its needs – and to individual development management policies had been influenced by the declared Climate Emergency and the associated Climate Emergency Action Plan (CEAP). Key aspects of the spatial strategy and an overview of the key policies which had been consulted upon to date, were detailed within the report.

The report stated that officers from the Planning Policy and Climate Emergency teams collaborated on an ongoing basis to share best practice and monitor progress towards the achievement of the CEAP’s goals. This included research into the successful

approaches of other local authorities to ensure best practice was embedded into the CEAP and LPU.

In the ensuing discussion, Members raised the following points and questions:

What steps were there to future proof key planning documents to ensure that sustainability was embedded? It was confirmed that the updated Local Plan would provide a comprehensive definition of sustainability. A key aim was to require developers to provide accurate information on the sustainability of new developments.

Was the Climate Change Interim Position Statement (CCIPS) in place and being implemented? It was confirmed that the statement was in operation. It encouraged developers to go beyond existing standards and had been useful in some planning appeals. However, the new Local Plan would be the key document moving forwards.

The importance of embedding the CEAP into the LPU was emphasised. In order to ensure that Members were up to speed on progress, it was suggested that specific training and briefings be provided for all Members.

In relation to environmental standards for residential and non-residential development, what were the prospects for including the provision of solar panels in new buildings? It was confirmed that some councils were adopting a “fabric first” approach which promoted heat pumps and solar panels. Update building regulations could include a menu of options including solar panels.

In relation to changing behaviour, what teeth did the Council have in relation to setting standards above Government standards? It was confirmed that the teeth related to the enforcement process. WBC was of a small number of councils which had a compliance team for major developments.

In relation to the CCIPS, what sort of actions were developers taking in order to go beyond existing standards? It was confirmed that more effective use of insulation was a good example. The use of new technologies was driven by competition amongst developers and higher expectations from residents. The CCIPS did apply to single house developments.

Policy SS9: Adaptation to Climate Change, required development proposals to incorporate adaptive measures, including increased resilience to higher temperatures. What was expected from developers? It was confirmed that developers would be expected to look at solar gain and use systems which avoided heat gain.

In relation to flood risk and sustainable drainage, what measures could be taken to mitigate against flood risk? It was confirmed that the aim was to avoid putting infrastructure in areas liable to flood. The developer had to show that new development would not increase the risk of flooding. As an example, the proposals for Hall Farm could include

mitigation through redesigning the river valley to enable it to hold more water. Officers were discussing this idea with the Environment Agency. It would be important to avoid knock-on effects further downstream.

Could the provision of high speed broadband be included? This would enable more residents to work from home thereby reducing traffic on the Borough's roads. It was confirmed that this issue could be addressed within major developments. This could be pursued through the LPU.

RESOLVED That:

1) Lindsay Ferris and Ian Bellinger be thanked for attending the meeting to present the report and answer Member questions;

2) a further update report be submitted to the Committee, in due course, on the emerging policy direction and links between the LPU and the CEAP;

3) all Members receive briefing/training on the emerging LPU and the importance of embedding the CEAP into the new Local Plan;

4) officers seek to include appropriate provisions relating to the delivery of high speed broadband within the LPU, as this would help to reduce travel and carbon emissions across the Borough;

5) officers continue discussions with the Environment Agency on potential "downstream" measures aimed at mitigating against the risk of flooding in the Borough;

6) officers be congratulated on the progress made to date in embedding Climate Emergency measures within the emerging LPU.

20 CEAP TRAFFIC REDUCTION TARGETS - UPDATE

The Committee considered a report, set out in the Supplementary Agenda, which gave details of progress against the traffic reduction targets in the Council's Climate Emergency Action Plan.

Paul Fishwick, Executive Member for Active Travel, Highways and Transport, attended the meeting to present the report and answer Member questions, supported by Rob Curtis (Transport Planning Team Manager).

The report gave details on the current traffic levels in the Borough and explained the progress made on each of the transport interventions in the CEAP. It outlines some of the current drivers for active and sustainable
travel and explained how this led to a reduction in traffic.

The DfT's Decarbonising Transport strategy set out a number of commitments under the heading "Increasing Cycling and Walking".This included a commitment to deliver a world class cycling and walking network in England by 2040. Government guidance was being reflected by the emerging guidance for Highway Authorities to follow when producing their Local Transport Plans and would be reflected in Wokingham Borough
Council's LTP4.

Transport was key a priority area for Carbon Savings as set out in the Council's CEAP due to higher than average car ownership in the Borough and it being a key emissions contributor. The CEAP stated that 10% of the targeted Carbon Savings were to be achieved from an increase in "Active Travel" such as walking and cycling. This work, along with the work of the My Journey programme was essential if we are to support residents, particularly those on lower incomes, to be feel safe and confident enough to walk and cycle more.

The report stated that walking currently accounted for only 5% of the total distance travelled in England. Around 49% of trips in towns and cities under 5 miles were made by car in 2021, with around a quarter of all car trips in England less than 2 miles. Many of these trips could be walked, wheeled, or cycled, which would help to reduce the 68 megatons (Mt) carbon dioxide equivalent (CO_2e) emitted from cars in 2019. Active travel could also reduce the proportion of people driving children to school by up to 33%.

The report gave details of progress against the key transport targets in the CEAP, including:

- Development of an Electric Vehicle (EV) strategy for the Borough.
- Reviewing business and residential electric charging infrastructure.
- Supporting local businesses to transition their commercial fleets to EV.
- Promoting lift sharing opportunities through the My Journey programme.
- Developing and implementing a Bus Service Improvement Plan.
- Reviewing home to school transport contracts.
- Developing and implementing the Local Cycling and Walking Infrastructure Plan (LCWIP).
- Completing the Cross-Berkshire Cycle Route.
- Producing Local Transport Plan 4 to achieve greater coordination and opportunities for Government funding – the aim was to seek approval of LTP4 by the summer of 2024.

The report stated that monitoring and evaluation of the CEAP in terms of decreasing car use and motorised vehicle mode share and the subsequent emissions calculations would be more formally defined by the Local Transport Plan 4. This would take into account the targets of the CEAP as well as emerging guidance from the DfT (due in 2023).

In the ensuing discussion, Members raised the following points and questions:

In relation to active travel, was WBC consulting widely about potential schemes? Was the input from users being incorporated into potential schemes? It was confirmed that the LCWIP had been the subject of extensive consultation. An Overview and Scrutiny Task and Finish Group had also been established and had met in March 2023. The Task and Finish Group was looking initially at the proposals for improved cycle provision on the Reading Road. The group included Ward Members and representatives from cycling groups. It would meet regularly as implementation of the LCWIP progressed.

It was noted that small wins based on imaginative projects could come out of the consultation process for the LCWIP. These could be delivered through cross-team working. It was confirmed that Active Travel England required schemes to meet relevant standards in order to attract funding, so there was a balance to be met when considering projects.

Electric, driverless cars were being trialled in the US. What progress was there in the UK? It was confirmed that the new Local Travel Plan (LTP4) would include a future mobility strategy which would do some horizon scanning in relation to driverless cars and electric scooters, etc.

Were there any recent updates on bids for external funding? It was confirmed that £400k had been awarded under the BCIP. The Government had also extended the £2 fare cap up to October 2023. The cap would then increase to £2.50 in order to encourage bus usage.

In relation to the loops used to measure traffic, the report indicated that there were 58, but less than 10 were currently working. What were the reasons? It was confirmed that contractors damaged the loops but didn't reinstate them properly. The situation was being reviewed in order to increase the number of loops which were operational.

There was concern about that state of pavements in the Borough in relation to access issues and problems caused by vegetation. It was confirmed that these issues should be identified through highway inspections. The Council could serve notice on private landowners or carry out works and recharge. The Council had a reporting system for use by residents.

RESOLVED That:

1) Paul Fishwick and Rob Curtis be thanked for attending the meeting to present the report and answer Member questions;

2) progress against the traffic reduction targets in the CEAP be noted;

3) further progress reports be submitted to the Committee in due course.

21 WORK PROGRAMME 2023-24

The Committee considered its Work Programme for 2023/24, as set out on Agenda page 45.

RESOLVED: That the next meeting of the Committee consider the fourth CEAP Progress Report and use that document to inform the Work Programme for 2023/24.

22 ACTION TRACKER

The Committee considered the regular Action Tracker report, set out on page 47 of the Agenda.

RESOLVED: That the Action Tracker report be noted.

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TITLE	**WBC Climate Emergency Action Plan (CEAP) Fourth Progress Report September 2023**
FOR CONSIDERATION BY	The Climate Emergency Overview and Scrutiny Committee on the 11th of July 2023
WARD	None specific;
LEAD OFFICER	Sabrina Chiaretti – Climate Emergency Service Manager
DIRECTOR	Giorgio Framalicco – Director of Place and Growth
LEAD MEMBER	Cllr Sarah Kerr – Executive Member for Climate Emergency and Residents Services

PURPOSE OF REPORT

The purpose of this report is to provide updates and information on the status of the Council's climate emergency work, including:

1. The progress made by the Council, over the period May 2022 to May 2023, to deliver its Climate Emergency Action Plan (CEAP)
2. The new format of the CEAP, including significant design changes to make it a more effective engagement and communication tool.

RECOMMENDATION

That the Committee considers the draft CEAP fourth progress report and comments on the delivery of the CEAP actions, prior to the report being presented to leadership teams in August 2023 and to Council in September 2023.

EXECUTIVE SUMMARY

This CEAP fourth progress report summarises the Borough's current carbon emission profile and the Council's progresses towards its 2030 carbon neutrality goal for the last year (May 2022 to May 2023).

The CEAP comprises 10 key priority areas for carbon reduction, and over 100 actions that the Council has committed to deliver to achieve its 2030 goal. The progress report contains full details of the actions and their associated outcomes, milestones and the latest status update, alongside anticipated costs and expected carbon savings.

As per the fourth progress report, Wokingham Borough's carbon footprint is currently 505 ktCO2e (DESNZ 2020), with a remaining shortfall in 2030 of 240 ktCO2e after all the actions in the Plan are implemented. Therefore, if the Council is to meet its 2030 carbon neutral goal, further actions and resources, as well as strategic embedding of climate emergency considerations across the organisation are needed, alongside discussions on carbon offsetting for residual emissions.

The CEAP is a working document and a planning tool that allows us to understand where the Council is heading from a carbon emissions point of view, and to implement new actions accordingly. Hence, the Plan will continue to be updated annually and change over time as many of the actions will develop and new actions will be identified.

The CEAP fourth progress report, as well as a document outlining the carbon accounting methodology and carbon savings calculations are attached to this document. These may encounter minor changes once they are circulated with leadership teams in August 2023, prior to being submitted to Council in September 2023.

BACKGROUND

Following the Council's climate emergency declaration made in July 2019 the CEAP was adopted. The CEAP identifies 10 key priority areas for carbon emission reductions, to enable the Council to reach carbon neutrality by 2030. These are: Transport, Renewable Energy Generation, Building Retrofitting, Carbon Sequestration, Schools, Waste & Recycling, New Developments, Procurement, Engagement, and Council specific actions. The CEAP includes over 100 actions that the Council has committed to deliver to reach its carbon neutrality goal.

Every year, a progress report is produced to update the Council on the progresses made around the delivery of these actions. To increase the strength and transparency of the Plan, every year the progress report is externally and independently reviewed by experts at the Council Climate Scorecards and the Carbon Disclosure Project (CDP), an internationally accepted process used by many large cities and companies.

This is the fourth year that the CEAP progress report is brought to Council. It covers progresses made by the Council over the period May 2022- May 2023. The report also includes updated projections of the Borough's emissions to 2030.

This year's progress report incorporates the recommendations of the 2022 community deliberative process. As part of this process, in early 2022, 60 representatives from various stakeholder groups from across the Borough came together to identify barriers and propose solutions to the Council's carbon neutrality transition. Alongside this, in late 2022, a residents survey titled "Let's Talk Climate" was delivered, that provided the Council with further insights into barriers that our community faces when making daily decisions which impact their carbon footprint. The recommendations from the stakeholders' groups and residents survey were discussed with officers and incorporated into the CEAP actions, and also used to draft a "vision" for a carbon neutral borough that is now included in the CEAP.

To better monitor and evaluate the delivery of the CEAP actions, in March 2023, monitoring groups have been established to cover the 10 strategic priorities of the CEAP. Through these monitoring groups, the Climate Emergency team regularly captures updates on each CEAP action and identifies and addresses delivery barriers. The CEAP remains a living document and a planning tool, with new project ideas being incorporated throughout the year to deliver maximum carbon savings.

The following paragraphs outline the areas for celebration as well as the areas for development that the Committee should be aware of when reviewing the Plan.

Areas for celebration:

- Emissions trajectory - As of 2020, the Council's overall emissions went down from 557.8 to 505.7 KtCO2e, representing a fall of over 52 KtCO2e. This was largely from

travel and commercial aspects (Over 20kt each), primarily attributed to the pandemic and lockdowns. While this is a larger than expected decrease in this particular year as a result of these external factors, the overall downward trajectories over the long term are not significantly affected.

- Greatly simplified design: the CEAP has been fully revamped for improved accessibility, engagement and understanding.
- Inclusion of adaptation actions. Whilst the CEAP remains a climate mitigation tool, there is a need for the Council to start adapting to the impacts of climate change that the Borough is already experiencing. For the first time ever, an action has been included in the CEAP to support the development of an adaptation plan for the Borough.
- On-street charging scheme figures well beyond expectation following initial pilot, so carbon savings have increased.
- Carbon savings associated with reduction in waste not just recycling, which is the main goal of the waste strategy.
- Greater focus on businesses. Targets specific to businesses have been included in the plan, to ensure the Council works with and supports businesses to understand their carbon emissions and decarbonise their operations and infrastructure.
- Two significant energy schemes launched in 2022/23: launch of the Solar Together scheme in partnership with the other Berkshire Local Authorities, that will hopefully reduce emissions from private homes in the Borough. Similarly, the Council successfully applied to the Social Housing Decarbonisation Fund and received £292k to bring around 110 social homes to an EPC C by 2025.
- Development of a climate change comms and engagement plan to maximise stakeholder involvement in the Council's climate work.

Areas for development:

- The CEAP actions are not sufficient to deliver carbon neutrality by 2030. Further actions and resources, as well as strategic embedding of climate considerations across the organisation are needed in order to reach carbon neutrality. Similarly, discussions around the Council's position on carbon offsetting should take place imminently, in order to prepare for a scenario where offsetting is utilised to offset residual emissions.
- Climate emergency needs to be further embedded throughout the organisation at every level. This will help climate considerations to be automatically prioritised as matter of course.
- There is a need to address conflicting priorities for the Council, such as facing increasing financial pressures. For instance, schools' actions have not been progressed significantly due to limited resources and officers time being allocated to this. We need to deliver the best possible outcome for Climate emergency whilst meeting other priorities.
- There is potential to make significant carbon saving through the Councils procurement processes. The Climate Emergency and Procurement team are looking to work more closely for better alignment between the Council's procurement work and climate commitment.
- Review of the carbon savings for some the actions means that the Plan savings fell by over 16kt – mainly due to changes to retrofit actions and some renewable energy projects.

What happens next?

There is a need for further embedding of climate emergency across the organisation. The delivery of the CEAP actions is a responsibility of each department, and it's currently

challenged by the unprecedented financial pressure that the Council is facing. In light of this, we need to make sure that climate change considerations are given sufficient weight through strategies and in decision-making, particularly where they bear a financial cost to the departments.

The Climate Emergency team will continue to coordinate the actions listed in the plan, and report on progresses. The team will continue to support all departments by delivering expert advice in sustainability, carbon accounting, and project specific advice.

Financial Implications

Recommendations are subject to financial approval. The Council will consider carrying out due diligence and take into account the cost of recommendations to ensure their financial sustainability.

FINANCIAL IMPLICATIONS OF THE RECOMMENDATION

The recommendations listed are wide ranging and cover many areas of the authority and in doing so impacting on a wide range of budgets. The implementation of many of the schemes listed will come at a higher cost than would have been the case to deliver these without the CEAP requirements. The Council therefore needs to accept that in implementing these proposals additional funding may need to be found.

The exact budget requirement will be identified and dealt with as each proposal is developed.

	How much will it Cost/ (Save)	Is there sufficient funding – if not quantify the Shortfall	Revenue or Capital?
Current Financial Year (Year 1)	£0	NA	NA
Next Financial Year (Year 2)	£0	NA	NA
Following Financial Year (Year 3)	£0	NA	NA

Other Financial Information
The cost of delivering all the CEAP actions is currently estimated to be in excess of £250m. This is a high-level estimate for all actions up to 2030, including those which have already begun. Many of these ongoing projects have already had partial/full funding secured, but the remaining future projects and stages (f projects will require additional funding, in excess of the current council internal budget, in order to be fully implemented. Suitable funding sources will be identified for these projects as and when schemes are brought forwards, with funding confirmed before schemes are progressed. These will need separate decision(s) which will go through the forward programme in their own right. Where possible additional funding will be sought from government grants and schemes, but for some actions such as engagement there is likely to be a requirement for council funding. Many of the CEAP actions will save the Council money in the long run, for example from retrofitting assets, utilising EVs and delivering solar farms. The majority of these costs are already incorporated where possible into the CEAP report.

Stakeholder Considerations and Consultation
Stakeholder consultation will continue through the climate emergency engagement and comms plan, and separately for each individual project as relevant.

Public Sector Equality Duty
This report relates to adoption processes which in themselves have no particular equalities implications. Due regard to Public Sector Equality Duty and equalities assessments are considered in the context of each scheme. The fourth progress report was subject to an EqIA and this is provided in attachment.

Climate Emergency – *This Council has declared a climate emergency and is committed to playing as full a role as possible – leading by example as well as by exhortation – in achieving a carbon neutral Wokingham Borough by 2030*
This review has a significant positive impact on the Council's carbon neutral objective, by providing comments on the actions the Council has committed to take to achieve this goal.

List of Background Papers
Appendix A. WBC CEAP Fourth Progress Report September 2023 Appendix B. WBC CEAP Carbon Accounting Methodology and Assumptions 2023 Appendix C. WBC CEAP September Progress Report EqIA 2023

Contact Sabrina Chiaretti	**Service** Economy and Housing
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WOKINGHAM BOROUGH COUNCIL

CLIMATE EMERGENCY ACTION PLAN

FOURTH PROGRESS REPORT | SEPTEMBER 2023

WOKINGHAM BOROUGH COUNCIL

CONTENTS

MESSAGE FROM CLLR SARAH KERR, EXECUTIVE MEMBER FOR CLIMATE EMERGENCY & RESIDENT SERVICES

We are in the middle of a global climate crisis caused by human emissions and activities. We're experiencing the breakdown of climate and ecological systems, resulting in rapidly declining biodiversity and more extreme weather events. The recent report of the Intergovernmental Panel on Climate Change outlined that climate impacts are intensifying and growing more rapidly than originally anticipated.

The impacts of climate change are not confined to some faraway countries. We have already begun to experience them here in Wokingham Borough. The increase in flooding, the higher number of heatwaves and more unpredictable weather events are the signs that climate change is already happening here, with repercussions on the borough's economy and infrastructure, and on the quality of life of our residents.

Within the last year, Wokingham Borough, as the rest of the UK, has seen dramatic rises in energy prices, which has exacerbated fuel poverty. The cost-of-living crisis has made everyday goods and services more expensive. These crises have affected us all, but particularly the most vulnerable in our society. The climate emergency is deeply intertwined with the cost of living and fuel poverty crisis. Failing to act on climate change will result in higher energy prices, impacting the cost of living further and affecting our quality of life.

Luckily, there is something we can do now to avoid or at least deflect the worst impacts of climate change. And not only can we do something: we have a responsibility to do so for future generations. To tackle climate emergency, it is key that we decarbonise our economy and infrastructures, and this is where the Climate Emergency Action Plan comes in. It is our collective plan as a Borough which lays out the actions, we have committed to deliver to reach our 2030 goal. It is a living document, regularly updated, to ensure we take into account global and national progress, policy changes, and the latest technological developments. This report has incorporated the recommendations made by the Community Deliberative Process run in 2022 through involvement with our community to identify solutions to address the climate crisis at a local level and design a vision for a carbon neutral Borough.

We recognise that we cannot achieve our carbon neutrality goal by working in isolation. We need more resources and support from Central Government to deliver the bold decarbonisation actions set out in this plan. We also need our society including residents, businesses, schools, voluntary and community organisations to come together and contribute to the delivery of the actions set out in this Plan. By empowering our community to take action locally, we can build momentum for change and drive real progress toward a more sustainable and resilient Borough.

OUR CLIMATE EMERGENCY RESPONSE

In July 2019, Wokingham Borough Council (WBC) members unanimously declared a climate emergency. The declaration commits WBC to do as much as possible to achieve carbon neutrality by 2030. Subsequently, the council published its first Climate Emergency Action Plan (CEAP).

The CEAP establishes 10 key priority areas and 102 actions to mitigate CO2 emissions and achieve our 2030 goal. These are: **Transport, Renewable Energy Generation, Building Retrofitting, Carbon Sequestration, Schools, Waste & Recycling, New Developments, Procurement, Engagement, Council specific actions**.

This progress report is the latest iteration and details the progress against each action and associated benefits and carbon savings the council plans to deliver by 2030, based on what is possible in current circumstances. This report covers our progresses in the year 2022 (April to April).

This report includes the recommendations that were shared by our residents, businesses, local organisations, schools and other stakeholders during the Community Deliberative Process "Let's Talk Climate" that took place in early 2022. Our Community Deliberative Process has helped us understand the views of our community on the council's response to climate change, while raising the profile of this Climate Emergency Action Plan. Following this, we will continue to engage residents, businesses, local organisations, schools and other stakeholders in discussions around climate emergency and empower them to take action and support our aspiration to become a carbon neutral Borough. We will listen to and learn from our residents, ensuring everyone can take action for a just transition to a more sustainable future.

The climate emergency affects us all, but we are acutely aware that those most at risk from the impacts of climate change include people with respiratory health conditions, children, older adults, people on low income and people from minority backgrounds. WBC is committed to tackling inequality and promoting inclusion in the delivery of this Climate Emergency Action Plan. We conduct Equality Impact Assessments on all significant projects, to identify and act on impacts on different groups of people at all stages of planning and delivery.

For enquires about this report, please email Wokingham Borough Council's Climate Emergency team at:

climate.emergency@wokingham.gov.uk

A Carbon Neutral Borough

In a carbon neutral Wokingham borough, our community would breathe clean air and enjoy clean and green bio-diverse spaces. People would walk, wheel, scoot or cycle, use accessible public transport and low-emission vehicles. Homes, businesses, places of work and leisure would be low-carbon and energy efficient, powered by renewables and use innovative technologies that pave the way forward for future generations. Wokingham would be an inclusive and diverse community, where everyone plays their part in contributing towards a low-carbon future.

A dream for a carbon neutral Borough, developed following the "Dream session" of the 2022 Community Deliberative Process "Let's Talk Climate"

OUR CLIMATE EMERGENCY ACTION PLAN PROGRESS

1. TRANSPORT

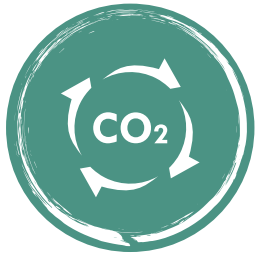
- 230 accessible active Electric Vehicle (EV) sockets available around the Borough
- 94 of these installed as part of the 'on street charging scheme'
- 3 cargo bikes purchased by the Council available for deliveries.

2. RENEWABLE ENERGY GENERATION

- generation of 27,113 MWh of renewable electricity in the Borough saving 6,930 tCO_2e*.

3. RETROFITTING BUILDINGS

- successful bid under the Social Housing Decarbonisation Fund to bring approx. 110 homes to an EPC C rating by 2025
- Over 1600 households getting assistance so far from the 'Help to Heat' scheme.



4. CARBON SEQUESTRATION

- 25,910 trees planted to date have contributed towards absorbing an estimated 3,886 tCO_2e*.

5. SCHOOLS AND YOUNG PEOPLE

- Teacher Climate Summit event hosted in July 2022 attended by representatives from 33 schools from around the Borough.

tonnes of carbon dioxide equivalent (tCO_2e)

OUR CLIMATE EMERGENCY ACTION PLAN PROGRESS

6. WASTE & RECYCLING

- Total waste including recycling in 2022 reduced by 5915 tonnes compared to 2021
- Recycling rate of 53%.
- 80,758 tCO_2e* savings in total and 1.15 tCO_2e* per household.

7. NEW DEVELOPMENT

- Adoption of Climate Change Interim Policy Position Statement to ensure Climate Emergency is a key material consideration when assessing planning applications
- Social housing at London Rd and Groveland sites received SAP** A rating status.

8. PROCUREMENT

- Carbon reduction plan and emissions reporting now required for substantial contracts.

9. ENGAGEMENT AND BEHAVIOUR CHANGE

- 'Let's Talk Climate' process involved 60 community representatives and 140 residents to gather recommendations around our climate work and vision
- The climate emergency newsletter continues to be successful, with now over 6,000 subscribers
- Online Planet Pledge campaign launched to inspire people to reduce their carbon footprint.

10. COUNCIL SPECIFIC ACTIONS

- Dinton Activity Centre and Woodley library are Net Zero buildings
- Carnival Hub has implemented new measures to improve efficiency
- A Net Zero Heroes team of council staff has been launched to engage with council staff in reducing their carbon footprint.

**tonnes of carbon dioxide equivalent (tCO_2e)*

***The Standard Assessment Procedure (SAP) is the methodology used by the government to assess and compare the energy and environmental performance of dwellings.*

CURRENT AND FUTURE EMISSIONS

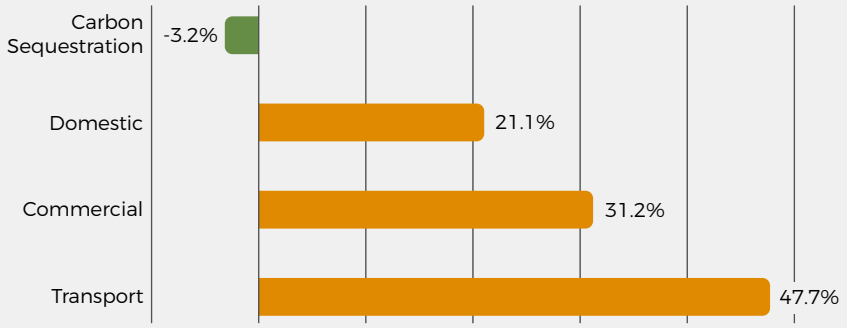


Figure 1. *Wokingham Borough Carbon Footprint 2020 ($ktCO_2e$). Domestic, Commercial and Transport adds up to 100% and Carbon sequestration reduces total emission by 3.2%*

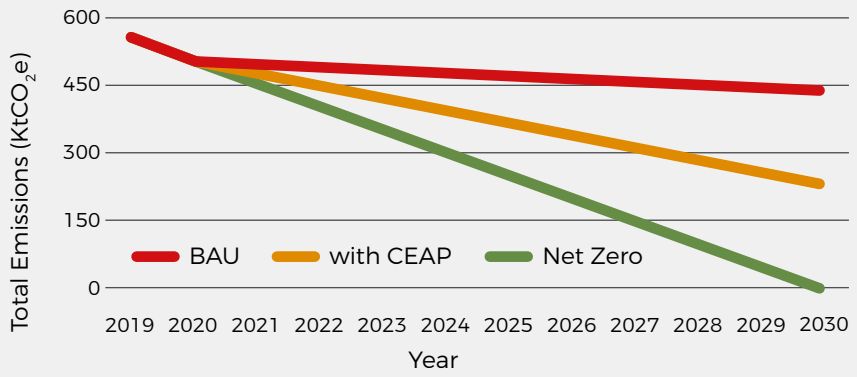


Figure 2. *Wokingham Borough Emissions Trajectories for 2030 ($ktCO_2e$)*

Wokingham Borough's carbon footprint as of 2020 was 505 $ktCO_2e$, with the breakdown of the three main sectors this is attributed to shown in **Figure 1**. This incorporates a negative figure for carbon sequestration (e.g. tree planting) and is based on government data and reported three years in arrears (DESNZ 2020)[6]. The full breakdown is available in Appendix 2.

Figure 2 shows Wokingham Borough Emissions Trajectories for 2030. Current business as usual (BAU) projections from SCATTER, follow a methodology based on numerous government strategies and incorporated targets, and estimate a 10% fall in emissions from 2020 to 2030 based on the UK doing minimal mitigation actions. This is achieved through contributing factors such as central government targets to increase the renewable energy infrastructure nationally and technological advances leading to greater energy efficiency.

This represents a 66 $ktCO_2e$ saving by 2030, as shown as the "BAU" line. Actions in the plan are estimated to save 206.7 $ktCO_2e$, meaning a shortfall of 232 $ktCO_2e$ remains, as shown by the "With CEAP" line in figure 2 above. This clearly demonstrates the scale of the issue and outlines the importance of delivering the CEAP actions, alongside the need for wider government support, as without statutory powers and funding, the major actions required to reach the "Net Zero" line above are not currently achievable.

for information on SCATTER please refer to Appendix 2

"Emissions are split into 3 different "scopes". Examples of emission sources for each scope are shown in **Figure 3** below

e.g.

- Heating & combustion of fuels in buildings
- Petrol & diesel vehicles on Borough's roads

e.g.

- Purchased electricity for own use

e.g.

- Holiday & business travel
- Transport of goods produced from outside the Borough
- Treatment of waste

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 or directly used in industry, and petrol/diesel used by vehicles whilst they are on the Borough's roads, again either for domestic or commercial purposes.

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, from a carbon accounting perspective, are out of the scope of the Borough's carbon footprint as they occur outside the boroughs boundary. Indeed all other emissions that occur outside the Borough boundary, as a result of activities taking place within the Borough boundary, fall into the category of scope 3 emissions. For example, the production and transport of goods from other countries, residential waste being treated outside of the Borough, as well as with distribution losses and emissions from water supply and treatment. It may also include investments made by stakeholders within the borough in external locations.

OUR 10 PRIORITY AREAS AND CARBON SAVINGS

The CEAP establishes targets to achieve carbon dioxide reductions in 10 priority areas. These are: **Transport, Renewable Energy Generation, Building Retrofitting, Carbon Sequestration, Schools, Waste & Recycling, New Developments, Procurement, Engagement, Council specific actions**.

The Council has identified actions to reduce the carbon emissions for each priority area. Due to emissions coming from all sources, many of the CEAP actions rely on each other and cannot be done in isolation, meaning the majority of projects are running simultaneously. Within the CEAP, Short term actions would be completed within a few years (2023-2024), Medium term actions take several years to reach fulfilment (2025 to 2027), and Long term actions take many years to come to fruition (2028 to 2030).

The Emission targets within this document are best estimates based on the information we currently have, and the carbon accounting methodology is subject to ongoing refinement. For simplicity, the savings figures are rounded down to the nearest whole number. Where possible, targets are aligned with government ones in terms of measurements, though stretched to be more ambitious than the 2050 Government goal. 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. The council will aim to benefit from low-carbon revenue streams and will be constantly seeking opportunities to work with the Government and private sector on joint projects, crowdfunding, grants and loans.

The council recognises the importance of the United Nations' Sustainable Development Goals (SDGs) and so the CEAP is aligned 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.

The council is constantly seeking to ensure the accuracy and quality of the information in the CEAP, and that our response to climate change is as robust as it can be. Actions within this plan are continually revisited to adjust or re-evaluate in line with actual progress, new policies, and global events that might affect the climate emergency agenda. To ensure we monitor progress against our 2030 target, a RAG rating system is in place. Each action has been assigned a colour based on the **standard RAG system, where green represents being on track to being achieved, amber indicates currently being slightly delayed, red indicates being significantly delayed**.

This plan is externally and independently reviewed by the council climate scorecards and the Carbon Disclosure Project (CDP), an internationally accepted process used by many large cities and companies. In order to scrutinise the Action Plan, a specific Climate Emergency Overview and Scrutiny Management Committee is in place, which meets every other month. This panel includes representatives from all major council parties and gives residents the opportunity to submit questions and scrutinise the climate-related work of the Council. The aim of the Committee is to identify opportunities for improvements within the CEAP reporting, to ensure the highest level of transparency, and to provide strategic input on the whole CEAP and the Council's climate projects, ensuring these are supported by SMART targets.

The table in the next page is a summary of our Climate Emergency Action Plan for the 10 priorities. Each priority area is presented in more detail later in this document. 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'.

Priority area	Carbon Savings (tCO_2e)
1. TRANSPORT	
1A 50% Reduction in ICE private car mileage	
33% From EVs Registration	**44,957**
5% From Reduced Travel	**6,812**
2% From Public Transport Increase	**2,725**
10% From Active Transport Increase	**13,623**
1B 22% Reduction in Road Freight	**23,241**
1C Local Transport Plan 4	**Included in total**
Subtotal	**91,358**

Priority area	Carbon Savings (tCO_2e)
2. RENEWABLE ENERGY GENERATION	
2.1 Increase the generation of renewable energy through investment in solar farms to generate 49,000 MWh	**12,524**
2.2 Support the generation of renewable energy in the Borough to generate the equivalent of approx. 1550 kWh per household	**27,333**
Subtotal	**39,857**

Priority area	Carbon Savings (tCO_2e)
3. RETROFITTING DOMESTIC AND COMMERCIAL BUILDINGS	
3.1 Implement a PassiveHaus housing scheme for 249 Council homes	**914**
3.2 Improve energy performance of Council Housing stock	**3,229**
3.3 All local schools to be retrofitted by 2029	**5,034**
3.4 75% of homes to be EPC C rated or above	**55,490**
Subtotal	**66,667**

Priority area	Carbon Savings (tCO_2e)
4. CARBON SEQUESTRATION	
4.1 Cover 170 hectares with new trees in the form of woodlands, hedgerows and orchards	**2,329**
4.2 Improve carbon sequestration in future land management decisions	**2,031**
4.3 Implement a programme carbon sequestration opportunities	**Included in total**
4.4 Implement a climate change adaptation programme for the Council and Borough	**Neutral**
Subtotal	**4,360**

Priority area	Carbon Savings (tCO_2e)
5. SCHOOLS AND YOUNG PEOPLE	
5.1 Encourage and support school children in the Borough to take an active role in reducing carbon emissions	**Neutral**
6. WASTE & RECYCLING	**(Out of Scope)**
6.1 Achieve 70% recycling target	**23,011**
6.2 Achieve 3% of waste going to landfill	**7,537**
Subtotal	**30,548**

Priority area	Carbon Savings (tCO_2e)
7. NEW DEVELOPMENT	
7.1 Major residential development to be designed and built to achieve zero carbon by the end of 2025	**Neutral**
7.2 Major non-residential development to be designed and built to achieve BREEAM excellent standard by 2025	**Neutral**
7.3 Establish a spatial strategy and design framework which promotes active and sustainable travel, sustainable design and construction, and enable biodiversity gains.	**Neutral**
7.4 Support low carbon and renewable energy generation	**Neutral**
7.5 All new residential and non-residential buildings to be designed and built to be EV ready by 2025	**Neutral**
7.6 100% of Council new development is built to carbon neutral standards from 2021	**Neutral**
Subtotal	**Neutral**

Priority area	Carbon Savings (tCO_2e)
8. PROCUREMENT	
8.1 Achieve sustainable procurement practices throughout the Council as part of corporate procurement strategy by 2022	**Neutral**
8.2 The Council will consider social value including carbon neutrality in all its procurement cycles by 2023	**Neutral**
9. ENGAGEMENT AND BEHAVIOUR CHANGE	
9.1 Raise awareness in the community about climate emergency agenda	**Neutral**
Subtotal	**Neutral**

Priority area	Carbon Savings (tCO_2e)
10. COUNCIL SPECIFIC ACTIONS	
10.1 Reduce by 70% CO_2e emissions produced by Council travel by 2030	**Included in travel emmissions**
10.2 Council car fleet to become entirely ultra-low emission by 2028	**45.39**
10.3 All Council CCS buildings will be retrofitted to carbon neutral standards by 2030	**6,612**
Subtotal	**6,657**

1. TRANSPORT

1. TRANSPORT

Annual Carbon Savings: 91,358 tCO_2e

Being one of the key contributors towards our emissions, and with higher-than-average car ownership in the borough, transport saving is a priority area.

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.

Key aims around Transport include encouraging and supporting residents and businesses to transition to sustainable and active methods. Active transport targets are currently ahead of the target estimation. Public transport and travel reductions are currently behind, with negative covid influences still remaining around public transport, meaning the carbon savings have been limited, and more actions or expansion of the current actions will be required in the future, to reduce Transport emissions. More focus is also recognised to be required around train usage, with work underway to include targets on this area in future progress reports.

The scale of Transport projects require significant external funding to implement, with a number of bids submitted this year alone.

Transport 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:

- 94 chargers have been installed under the “on street charging scheme”, with an additional 42 to come.
- North Arborfield SDL Bus Strategy Published.
- 2109 children trained across the 3 levels of bikeability.
- Love to Ride Audit completed, with 122 active companies and 2530 participants.
- 2 council owned cargo bikes are being loaned out to businesses and 1 is being used internally.

Action Changes from last year:

- 1A.4.11 merged into 1A.4.10.
- 1A.4.9 incorporated into 1A.4.5 as part of wider LCWIP related changes to increase walking and cycling.
- New Action 1C for LTP4 which incorporates multiple strategies.

SDGs:

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
T1A. 50% Reduction in ICE private car mileage			**68,117 tCO_2e**	**TBC**	
1A.1 33% From EV Registration			**44,957 tCO_2e**	**TBC**	
1A.1.1 To develop an EV strategy for Wokingham Borough. Borough wide strategy to specify the infrastructure for EV charging point to encourage the uptake of EVs.	1. Carry out an initial mapping assessment of the EV requirements and existing chargers for the Borough. 2. Obtain a baseline on current electric vehicle market, current ownership, forecast growth and charging infrastructure technologically. 3. Assess the potential for an integrated network of EV charge points. This would include encouraging the installation of EV charging points at motorway service areas and at large fuel retailers. 4. Create a business case for funding. 5. Develop and agree policy for EV charge point provision, which will maximise uptake of EV. Including policy, processes and protocol for responding to requests for charge points and how they can be operated and maintained. 6. Agreeing partnerships, income streams and service providers to ensure best uptake. 7. Produce EV strategy report and present to senior leadership teams for approval.	The consultant has sent over their report. This will be finalised by officers internally regarding targets and projections.	Included in total	Short term (2023/24) £32,000	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1A.1.2 Provide a uniform method of accessing public and private charge points To deliver a back office so that EV chargers are accessible and easy to use to encourage more people to use them, along with providing accurate standardised public information on how to locate, use and pay for chargers in the Borough.	1. Investigate the types of back office payment systems used by the industry and assess the best option to be implemented at WBC. 2. Harmonise EV related contracts such as electricity, maintenance, service and back office. 3. Develop software for council to use when designing new projects and need this information. 4. Monitor power usage to ensure reliability.	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.	Included in total	Short term (2023/24) Nil	
1A.1.3 Review the residential charge point infrastructure for those who have communal parking facilities such as flatted developments. 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.	1. Implement a pilot of EV charging points in selected location, aim at installing 19 new charging points for residents with communal parking facilities. 2. Based on the experience gained during stage 1, the council will seek to extend charging point facilities across the Borough dependent on government funding phases being announced.	94 chargers have been installed under the on street charging scheme, with an additional 42 to come. These are all part of the same and to be delivered this year (2024).	785 tCO_2e	Long term (2028/30) £173,500	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1A.1.4 Ensure that all EV charging points installed in the Borough are 'smart ready' to balance the electricity load demands on the grid. This will ensure reliability of power supply in the system. Maintaining confidence in the network and increasing the uptake of EVs. Overall carbon savings cannot be achieved without this.	1. Identification of dynamic load balancing or local storage systems that could be implemented in WBC. 2. Engage with service providers about generic support for WBC EV chargers through standards such as OCCP. 3. Analysis on current EV provisions and process in place. 4. Assessing the potential implementation of fast charging at a premium rate to assist load balancing. 5. Establish the parameters for the management of available energy in an area through methods like dynamic load balancing or local storage systems. 6. Ensure that charge points are smart ready by setting requirements prohibiting installation of charge points unless they meet certain load management specifications.	Action completed for existing chargers. Some sites have limited capacity so load balancing for multiple charging sessions are planned to be implemented in the coming years.	Included in total	Ongoing (2025/28) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1A.1.5 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.	1. Consult with local businesses to understand needs, including taxi fleets, to develop the required charging infrastructure to support the uptake of EVs. 2. Engage local business with Workplace Charging Scheme. 3. Provide information on salary sacrifice schemes to support employees to transition to EV, 4. Assess opportunities to support the development of plug-in taxi programs within the Borough, considering the requirements for charge points. 5. Promote the benefits of EVS and electric transport overall through the climate conversation series and newsletters. This includes providing advice on applying for grants and funding for purchase and installation cost, etc. 6. Aiming for the transition of 20% vehicles used for commercial purposes to ultra-low or electric.	The workplace charging scheme will need to be added to the EV Strategy. One scheme has been done via a commercial tenant request, with the potential for more of these in future. A few businesses have also been contacted specifically following low carbon workspace grants and the benefits and viability of EVs highlighted.	1,834 tCO_2e	Medium term (2025/27) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1A.1.6 Promote uptake of EVs with our residents through engagement As 60% of residential buildings have parking facilities, we can support and educate our residents about the benefits of transitioning to EVs.	1. Deliver a sustained campaign to inspire residents to 'Go Ultra Low' and transition to EVs, making available information that will support this decision, including government schemes that will support residents in the installation of EV charging points.	Not started	Included in total	Long term (2028/30) Nil	
1A.1.7 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. EV network plan will have standardised EV charging point requirements to make charging easy to access.	1. Explore potential locations for charging points, including commercial property such as business parks, shopping centres, etc. 2. Align the EVs installation requirements to the building retrofitting programs. 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. 4. Targets for charger installation will be included in the EV Strategy. 5. Ensure all council-owned assets comply with the standard. This includes locations such as libraries, leisure centres, parks, etc.	EV standards from highways design guide is being used. Ongoing process of exploring new options for charging points. Checklist developed to help project managers identify needs and types of chargers based on needs of users and other restrictions. 112 active sockets installed, with a further 77 planned, totalling 1091 tCO_2e identified.	Included in total	Medium term (2025/27) Costs TBC	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1A.2 5% From Reduced Travel (Removing Journeys)			**6,811 tCO_2e**	**TBC**	
1A.2.1 Engage businesses to promote home and remote working when possible. 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.	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. 2. Deliver a communications campaign to encourage local business to learn from COVID-19 unintended consequences. 3. Reduce the CO2 emissions caused by travel from workers of local businesses by 30%.	Economic Development are commissioning a homeworking study this summer to understand the needs of homeworking for the Borough's businesses.	4,183 tCO_2e	Short term (2023/24) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1A.2.2 Promote Liftsharing schemes / opportunities through My Journey to help individuals and businesses develop bespoke travel policies. Reduce transport related CO_2e emissions, reduce congestion, improved road safety and air quality by promoting Liftsharing, which helps companies assess staff travel patterns to promote car sharing.	1. 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. 2. Set up CO2 emissions targets for local businesses. 3. Produce and submit proposal Procurement process. 4. Launch Liftshare scheme 5. Deliver a communications campaign to promote active and sustainable travel modes through competitions. 6. Aiming for a 10% reduction in the number of single occupancy car trips to and from businesses.	This project is currently on hold as it is incorporated into the upcoming MyJourney business plan, though communications with businesses is continuing.	1,394 tCO_2e	Short term (2023/24) £30,000	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1A.3 2% From Public Transport Increase			**2,725 tCO_2e**	**TBC**	
1A.3.1 Produce bus service improvement plan. Examining bus routes, companies and various opportunities to set a vision, plan, policy framework and targets for bus passenger growth within the borough.	1. Gap analysis SWOT analysis, produce policies of what will need to be improved. 2. Engagement and consultation local bus operators, internal stakeholders. 3. Engagement with consultants to produce reports. 4. Converting these reports into combined strategy. 5. Setting the policy framework for bus services to recover from Covid and for establishing longer-term growth. 6. Publishing the bus service improvement plan. 7. 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.	A revised BSIP 2 was published in February 2023 and will be submitted for future rounds of bidding.	Included in total	Short term (2023/24) £27,500	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1A.3.2 Establish an enhanced partnership with contractors to improve usage. Working with Bus companies as partners to increase bus usage through more accessible services.	1. Make a legally binding document with bus operators - define levels of service and provision of infrastructure in relation to the schemes 2. Identifying key corridors and setting frequency of bus service - set up bus priority and how to improve journey times 3. Have an Enhanced Partnership in Place	Following cost changes this will be restarted in 2023 and will include variation clauses for: more frequent and more reliable bus services, better access in rural areas, more attractive fares for young people, better marketing and improving buses themselves.	Included in total	Short term (2023/24) Nil	
1A.3.3 Support electrification of local buses under ZEBRA (Zero emission bus regional areas). Depending on Reading buses having the required funding for fleet renewal Gov will fund 75% and LA need to fund the rest	1. Identification of the route/buses/ specifications 2. Applying and achieve funding for Zero emission bus regional areas (ZEBRA) Tranche 1. 2021 May 2021 Tranche 2. September 2021 3. This will be included in the BSIP	Route identified as Route 21 - Lower Earley - Reading University - Reading Town Centre 2nd bid submitted as part of BSIP, particularly for urban routes including Lower Earley as strong feasibility due to shorter route, but unsuccessful. This will be revisited if suitable funding opportunity arises after DfT delays.	Included in total	Medium term (2025/27) Included in £34m bid.	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1A.3.4 Improve the bus public transport network for Wokingham Town. Identifying the key transport needs for the public travelling between Wokingham and surrounding areas: Wokingham Town, Finchampstead, Winnersh, Twyford, and Woodley.	1. Launch public consultation. 2. LCTS consultation 3. Re-tender the public transport contract to procure an improved contract 4. This will be included in the BSIP 5. Decrease the number of people arriving in personal vehicles at public transport interchanges (rail stations & P&R sites) by 5% by March 2022.	Contracts have gone out for retender with bus companies due to the costs involved.	Included in total	Short term (2023/24) Costs TBC	
1A.3.5 Bus Stop Infrastructure Works to Support North Arborfield SDL Bus Strategy. Public Transport infrastructure enhancement includes more shelter from poor weather, more seating capacity and real time information displays to encourage more residents to use the bus network.	1. Create a bus strategy for North Arborfield 2. Develop and agree an implementation plan 3. Start works on site.	The strategy has been published and an implementation plan agreed. 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.	Included in total	Medium term (2025/27) £54,000	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1A.3.6 Increase peak-hour bus transport for Lower Earley. Increase the capacity of bus transport between Lower Earley and Reading as surveys suggest morning services are at capacity and leaving passengers at stops.	1. Review contract with Reading buses 2. Identify capacity requirements 3. Bid for funding 4. Deliver increased capacity in the Short term 5. Re-assess requirements post covid and home-working 6. 5% decrease in the number of people arriving in single occupancy vehicles at public transport interchanges (rail stations & P&R sites).	Currently the route is still operating with capacity, so there is not a case for increasing the resource, though it is being monitored regularly.	Included in total	Short term (2023/24) Nil	
1A.3.7 Implement the South of M4 bus strategy. Increasing the frequency of the Leopard Bus services, serving the South of M4 SDL.	1. Launch public consultation to understand demand for travel 2. Deliver increased frequency of services 3. Review capacity requirements under covid changes. 4. This will be included in the BSIP. 5. Increase the number of residents using this by 5%.	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 this project towards shared goals.	Included in total	Short term (2023/24) £480,000	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1A.3.8 Investigate demand services opportunities and on-demand flexi-routes. 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.	1. Investigate ARRIVA Click success. 2. Assess Twyford under the rural mobility fund bid as a pilot area. 3. Submit bid for extra funding in this area 4. This will be included in the BSIP as a longer-term aspiration for improvement to rural transport and early morning / late evening transport. 5. Leading to a 5% increase in the number of trips from our public transport interchanges by bus and rail by March 2022.	A bid has been submitted to DfT as part of BSIP but unsuccessful. Under consultation to explore DRT further, with recent changes to focus more on fixed routes.	Included in total	Long term (2028/30) Included in £34m bid.	
1A.3.9 Home to school transport project. Re-optimising the routes and capacity for school buses by re-tendering the contracts, alongside the wider taxi collection scheme, including minibuses and sharing more.	1. Calculate the optimal route plans 2. Calculate the estimated carbon savings 3. Re-tender contracts 4. Collate the details on the current taxi scheme 5. Identify opportunities for sharing or minibus routes 6. Modify plans as needed to ensure 100% coverage 7. Monitor progress to identify savings	Completed - The school bus contracts have been re-tendered with the switch happening on the 06/09/21, with ongoing monitoring.	2.55 tCO_2e	Short term (2023/24) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1A.4 10% From Active Transport Increase			**13,623 tCO_2e**	**TBC**	
1A.4.1 To provide primary school children with the opportunity to develop practical skills and an understanding of how to cycle safely. 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.	1. Compile and deliver an annual events programme for Bikeability courses. 2. Monitor impact of programme on take up of cycling to school. 3. Aiming for a 5% reduction in the number of children being driven to Wokingham Borough schools by March 2023.	Courses still underway. Project fully funded with a total of 2125 children trained across the 3 levels of bikeability, alongside 15 families as part of a new scheme. This is an ongoing programme of training which we intend to continue subject to future funding.	353 tCO_2e (Included in total)	Short term (2023/24) £289,176	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1A.4.2 Encourage and support local schools to join Modeshift Awards scheme for active and sustainable travel. Create a culture of active travel amongst school children, having a direct impact on air quality, carbon savings and helps improve student health and concentration levels.	1. 10 schools targeted within the Wokingham Town, Finchampstead and Twyford areas (AQMA), to achieve Modeshift STARs accreditation at bronze, silver, gold or platinum level, as appropriate for the school, supported by active travel officers. 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. 3. Leading to a 10% reduction in the number of children being driven to school by March 2026.	Ongoing work with schools via certification and competitions. 12 schools actively engaged with, and an additional 10 schools with air quality focus and monitoring equipment. A further 2 schools have both had bronze accreditation confirmed, with 3 more applying for accreditation. 26 schools registered for the annual Big Walk and Wheel. Funding has been awarded for Beat the Street in 2024 and we hope to hold a car free day this year.	137 tCO_2e (Included in total)	Medium term (2025/27) £190,101	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1A.4.3 Roll out the Healthy School Streets programme. 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.	1. Design how the scheme will work. 2. Assess potential schools and create tender opportunity. 3. Select a school to pilot scheme. 4. Review the results of the pilot. 5. Role out scheme more widely. 6. Leading to a 10% reduction in the number of children being driven to school by March 2026.	A pilot is hoped to be launched at one school this year, dependent on new regulations for camera enforcement. There is potential for surveys or adding to existing to collect data as many schools are already collecting data in this area towards modeshift stars.	Included in total	Long term (2028/30) £50,000	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1A.4.4 Increase the uptake of cycling from local business by promoting the Love to Ride programme. Encourages people to choose cycling as their main mode for essential travel and as a fun, enjoyable form of daily exercise.	1. Run 4 campaigns per year to promote cycling to work. 2. Work in partnership with local businesses to promote active travel breakfast. 3. Aiming to reduce the CO2 emissions from employees of local businesses travelling to work by 5% by 2025.	An audit has now been completed after last year, with a number of significant changes made, leading to a strong increase in users, with 122 active companies and 2530 participants.	620 tCO_2e (Included in total)	Medium term (2025/27) £73,600	
1A.4.5 Develop the Local Cycling and Walking Infrastructure Plan (LCWIP) to be Borough wide and implement 50% LCWIP by 2030. Create a comprehensive network of walking/cycling routes across the Borough which are joined up.	1. Completion of LCWIP studies across the borough from 2021 to 2025 to provide evidence and data on existing and proposed usage and measures. 2. Implementation of measures from the reports. 3. Undertake a feasibility study on Carnival Hub crossing with Network Rail, to deliver a new walking and cycling crossing here. 4. Aiming to increase cycling modal share by 4% and walking modal share by 5%.	LCWIP has now been adopted by the council and is being used for bidding for funds. The Woodley to Reading route is temporarily on hold until further discussion with Active Travel England/ Members. £600k has been awarded by Active Travel England for the design of A329 Reading Road. Network rail are replacing the Carnival Hub bridge, but WBC are working to add ramps for accessibility.	12,447 tCO_2e (Included in total)	Long term (2028/30) £38m (£5m for report)	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1A.4.6 Deliver engagement and cycle training events across the Borough. 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.	1. Organise cycling training events in local areas. 2. Deliver cycling training events in local areas. 3. This increases confidence, road safety awareness and skill level on bikes to achieve a 2% increase in residents regularly cycling for leisure and utility. 4. Engage residents with active travel schemes by providing discounts for bikes & accessories.	Cycling events last year included: • Easter Bike Bonanza at Shinfield. • Close Pass operation with Thames Valley Police. • Children's cycling activities at 7 HAF events (Holiday Activities and Food) around the borough. • Women returning to cycling event. • Helped to organise Wokingham Bikeathon and E-bike event. This year, we are holding: • Easter Bike Bonanza at the FBC centre, Finchampstead. • Wokingham Bikeathon. • E-bike event.	212 tCO_2e (Included in total)	Short term (2023/24) £7,000	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1A.4.7 Adult cycle training. Encouraging outdoor cycling for people over 55 for travel.	• Deliver SHINE over 55's rides events as planned in the Events Programme. • Leading to a 3% reduction in car use by residents over 55.	Began end of April 2022 and going out to businesses as well as over 55s. • Adult cycle training lessons for beginners/ improvers run on Saturdays from April – October (with free loan of bikes if required.) • Free bike rides for women organised and promoted through British Cycling's Breeze network (including easy rides for beginners, confidence building rides, steady and challenging rides.)	1,633 tCO_2e (Included in total)	Ongoing £1,500	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1A.4.8 Completion of the Cross Berkshire Cycle Route – NCN 422. This is included within the Thames Valley Berkshire Local Growth Deal. between Newbury and Windsor (approx. 30 miles), including a section within Reading, Wokingham Borough, West Berkshire, Bracknell Forest and Windsor & Maidenhead.	1. Creation of a new national cycle route with a combination of shared use and on-carriageway cycle lanes on the A329. 2. This will encourage more residents to cycle by connecting people with key destinations.	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. This will be done as part of the LCWIP.	Included in total	Short term (2023/24) £1m	
1A.4.9 Promote active and sustainable travel modes amongst new residents at new developments and SDLs. Inform new residents of alternatives to single occupancy car use, promoting the wider benefits of active and sustainable travel, while providing a local context.	1. Deliver personalised travel planning to new residents in new developments via transport advice about alternative modes of travel, including free taster tickets and tailored travel packages. 2. Deliver welcome packs for Deer Leap Park and Orchard Rise in the Spencerswood, Arborfield and Wokingham areas. This includes offers for sustainable travel, like bus taster tickets and cycle shop discounts, as well as localised cycle, bus and walking maps. 3. Aiming to achieve 25% of new residents travelling sustainably on a daily basis across the Strategic Development Locations each year by 2026.	This is ongoing, with a number of locations reached this year, including: Emmbrook Place, Copsewood and Ashridge Grange in Wokingham. Shinfield Meadows, Shinfield Gardens and Long Acre in Shinfield Nightingale Fields, Lakeside Gardens and Watermans Gate, Arborfield.Personal travel planners visiting homes in Shinfield for 3 weeks in October	Included in total	Medium term (2025/27) £3,000 + 50,000	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1B. Reduced Road Freight			**23,241 tCO_2e**	**TBC**	
1B.1 Develop a domestic and industrial freight management policy alongside LTP4. To develop a borough wide traffic distribution hierarchy to understand traffic capacity, and traffic carrying routes to improve operational logistics and Reduce the number of 'empty runs' and consequently the number of trucks on the road. The framework will support decision making on the traffic distribution, based on air quality, carbon emissions and energy savings.	1. Data gathering and assessment. 2. Creating an accurate baseline. 3. Develop route hierarchy. 4. Incorporate the first draft freight management policy into LTP. 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. 6. Deliver a 22% decrease in distance travelled by road freight.	Not Started	23,241 tCO_2e	Short term (2023/24) £30,000	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
1B.2 Support the transition of business vans to cargo bikes. 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.	1. Feasibility study to understand viability. 2. Secure funding from the capability fund. 3. Set up the business grant. 4. Monitor applications and results.	A bid for this has been submitted under Innovate UK in early 2023, but was unsuccessful. The Council will actively look for funding to deliver this project in 2023. The council current has 2 bikes that we are loaning out to businesses and 1 to be used by our team.	Included in total	Short term (2023/24) £20,000	
1C Local Transport Plan 4			**Included in total**	**£200,000**	
1C.1 Develop a Local Transport Plan to combine and vitally support the above strategies and actions, enabling greater coordination and opportunities for government funding. Local Transport Plans (LTPs) provide information on how the council intend to manage transport responsibilities including objectives, policies, and plans for transport improvements. Once adopted the progress of this plan will be measured by the individual strategies it defines and supports.	1. Collect data and consult stakeholders for the evidence base. 2. Complete draft report including data and options which will support the delivery of other strategies and actions. 3. Consult more widely with residents and further stakeholders, ensuring compatibility with other strategies. 4. Finalise the draft and go through approval stages. 5. Adopt the strategy and apply the measures in the relevant areas.	The details for the evidence base for the initial stages of this report have been collected and options which will inform the strategies in above sections are being developed for the draft of the full report.	Included in total	Short term (2023/24) £200,000	

2. RENEWABLE ENERGY GENERATION

2. RENEWABLE ENERGY GENERATION

Annual Carbon Savings: 26,420 tCO_2e

Emissions from fossil fuel burning to supply electricity is 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.

By generating our own renewable energy through large schemes such as solar farms we can feed that back into the grid and reduce the overall requirement and composition of fossil fuel provision. This is how the carbon savings are calculated, by identifying how much MWh the renewable generation in our borough will reduce the need for such alternatives in the national grid system.

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.

Over the last year, Wokingham Borough Council has established the complex supporting planning and procurement necessary to deliver the significant projects that are intended to increase the generation of renewable energy across the Borough. The Council remains very much committed to the delivery of large scale ground mounted solar farms and will work with stakeholders as far as practicable and possible to deliver those in a timely manner. Recent correspondence with SSEN and National Grid has brought into doubt the delivery of those projects before 2037, but WBC directors are meeting with those organisations in order to better understand the constraints and identify solutions to accelerate delivery to better align with both national and local targets. Following those meetings the council will need to assess further the implications for project delivery and carbon savings identified within the CEAP.

Key Achievements this year:

- The generation of 27,113 MWh renewable electricity in the borough in the last recorded year (2021) saved the borough 5,722 tCO_2e.
- Solar Together scheme planned for launch summer 2023, to support able-to-pay residents to install solar panels on their homes.
- Home Decarbonisation Advice scheme initiated through Parity Projects
- 1500 properties assisted over the last year under ECO3 scheme.

Action Changes from last year:

- 2.2.2 has been split into 2.2.3 to separate between residents and businesses, with the initial 2.2.3 of smart energy incorporated into these or 3.4.5.

SDGs: 7 AFFORDABLE AND CLEAN ENERGY | 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE | 11 SUSTAINABLE CITIES AND COMMUNITIES | 13 CLIMATE ACTION

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
2.1 Increase the generation of renewable energy through investment in solar farms to generate 49,000 MWh			**10,342 tCO_2e**	**£51.8M**	
2.1.1 Deliver the installation of a solar farm in Barkham with the capacity to generate in excess of 29 MWp of energy. 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. New route for walkers, cyclists and horse-riders are being considered.	1. Asset review board to identify potential sites - consultant briefing for review of master planning of specific sites. 2. Site feasibility, options appraisal and establishment of business case. 3. Public consultation. 4. Planning submission/approval. 5. Grid connection application/agreement. 6. Executive/Council approval of business case. 7. Secure vacant possession - Site tenant one year notice 8. Procurement of construction contractor, including framework and due diligence process. 9. Solar Farm Construction. 10. Large scale solar farm installed in Barkham with the potential of generating 29 MWp output achieving 28,563,000 kWh's per annum. 11. Circa 10,000 new trees planted on the farmland.	Project has secured planning permission. Executive/Council has approved the business case and the main contractor has been appointed. Vacant possession of the site has been secured. Consultation processes with local residents is complete. The project had accepted a grid connection offer from SSEN of 2026 and was progressing on that basis for delivery between summer 2024 and 2026. Notwithstanding, in March 2023 the Council were informed that the connection date would now not be until 2037. At the time of writing, a director level meeting has been arranged between WBC, National Grid and SSEN to discuss the change in position and the possible solutions for accelerating delivery. Following that meeting the council will need to assess further the implications for project delivery and carbon savings.	6,121 tCO_2e	Programme of delivery to be confirmed in due course. £26.8M	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
2.1.2 Deliver the installation of a solar farm in Site 2 with the capacity to generate in excess of 20 MWh of energy. This will be reviewed case by case depending on surveys and other considerations. 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.	1. Initial site identification 2. Site feasibility, options appraisal and establishment of business case. 3. Public consultation. 4. Planning submission/approval. 5. Grid connection application/agreement. 6. Executive/Council approval of business case. 7. Secure vacant possession - Site tenant one year notice 8. Procurement of construction contractor, including framework and due diligence process. 9. Solar Farm Construction. 10. Installation of solar farm in Site 2 with the potential of generating 20+ MWh generation by 2027.	Potential site has been identified and initial feasibility/options appraisals are currently underway. In light of the position at Barkham Solar Farm, work on Site 2 is currently on hold until such time as directors have met with SSEN and National Grid to ascertain potential delivery timescales for connection into the grid.	4.221 tCO_2e	Programme of delivery to be confirmed in due course. Circa £25M	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
2.2 Support the generation of renewable energy in the Borough to generate the equivalent of approx. 1550 kWh per household			**16,078 tCO_2e**	**TBC**	
2.2.1 Set up a Community Energy Fund for Wokingham (WEC) A Community Energy Fund will help accelerate the uptake of renewable energy generation within the Borough. The WCEF funds renewable energy installations through local shares from the community, enabling individuals and local organisations to support and benefit from the scheme.	1. 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. 2. Next steps with key stakeholders to set up the shares value and future delivery of the scheme 3. Facilitate access to external funding to cover the cost of renewable energy installations across the Borough. 4. An annual report will be provided by WEC and Enery4all one year after it has been launched 5. The scheme aims to generate an average of 27,000 kWh/year of renewable energy.	This action is on hold due to staff issues, currently being at the assessment and appointment stage and to planning to follow the reading model, being partnered with Reading and Energy4All to assess viability of a number of potential buildings. Community led initiative being loosely supported by council officers.	5 tCO_2e	Short term (2023/24) Nil (Marketing only)	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
2.2.2 Support residents to reduce their energy usage and carbon emissions and increase the uptake of green energy. Deliver a comprehensive service of energy efficiency measures, consultancy, and advice to residents. This also includes the potential to directly provide green energy in the future.	1. Provide advice to residents on energy efficiency measures, along with more accurate information about energy consumption and costs, so consumers can easily understand how to save money on their bills. 2. Support the delivery of relevant smart grid technologies to residents. 3. Feasibility assessment for the council to commence a 'Green label' energy procurement initiative for council properties. 4. Development of the scheme, aiming to reach approximately 15,000 properties. 5. Initial conversations with potential partners. 6. Scheme approval by Executive and launched. 7. Provide a scheme which allows for Public and businesses to 'buy' Green electricity / Gas through WBC (referral).	Solar together scheme to be launched in Summer 2023. The scheme will enable able-to-pay residents to install solar panels on their properties at a competitive market price, through pre-vetted suppliers. Eligible residents will be contacted in summer 2023, and installations aim to be completed by April 2024. Home Decarbonisation Advice scheme initiated through Parity Projects. The scheme will support residents identifying and delivery retrofit and decarbonisation measures in their homes. Most paperwork has been processed to set up access for our area and residents. Soft launch taking place in summer 2023, ready for full delivery in autumn 2023. ECO3 for lower income and more vulnerable households: 1500 properties assisted over the last year.	7,915 tCO_2e	Long term (2028/30) Costs: £8k Solar Together £5k Home decarbonisation Advice	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
2.2.3 Support local businesses and VCS to reduce their energy usage and carbon emissions and increase the uptake of green energy. Deliver a comprehensive service of energy efficiency measures, consultancy, and advice to businesses. This also includes the potential to directly provide green energy in the future.	1. Provide advice to businesses and Voluntary and Community Sector organisations (VCS) on energy efficiency measures, along with more accurate information about energy consumption and costs, so consumers can easily understand how to save money on their bills. 2. Support the delivery of relevant smart grid technologies to businesses. 3. Provide a scheme which allows for Public and businesses to 'buy' Green electricity / Gas through WBC (referral).	Developing an offer for businesses and VCS organisations to understand and reduce their carbon footprint, uptake renewable energy options and work together with the Council on our net zero by 2030 goal.	5,500 tCO_2e	Long term (2028/30) Costs TBC	

3. RETROFITTING DOMESTIC AND COMMERCIAL BUILDINGS

3. RETROFITTING DOMESTIC AND COMMERCIAL BUILDINGS

Annual Carbon Savings: 64,033 tCO_2e

While energy supply elements are primarily targeted above, reducing the demand for such, by retrofitting domestic and commercial buildings, is also vital in minimising overall energy 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.

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.

In addition, the council are keen to work with local businesses to also improve commercial properties, to deliver similar benefits. This is again in line with government aspirations. This work will involve working with many partners, such the Energy Company Obligation (ECO) and Green Homes Grant schemes.

Social houses too are included in this section. Offices, leisure centres and libraries, and other Council owned buildings are included in the council section at the end of the CEAP instead, as this relates directly to council energy use.

Key Achievements this year:

- Building retrofitting works so far have cumulatively contributed towards savings of 741.89 tCO_2e.
- Street lighting efficiency has contributed savings of 163 tCO_2e.
- Over 1600 households getting assistance so far from Help to Heat.
- Gorse Ride PassivHaus site redesigned to be entirely no gas.
- A bid has been successful under the Social Housing Decarbonisation Fund to bring ~110 homes to an EPC C by 2025.
- A successful bid has been completed for the home upgrade grant 2.
- Local Authority Delivery (LAD) 2 scheme completed and LAD 3 upcoming.

Action Changes from last year:

- 3.4.4 – Home decarbonisation service part moved to 2.2.3 as it is about advice not delivering building retrofitting.
- Schools retrofitting targets moved into this specific building retrofitting section.

SDGs:

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
3.1 Implement a Passivhaus housing scheme for 249 council homes			**914 tCO_2e**	**TBC**	
3.1.1 Gorse Ride Regeneration Project These 249 new council homes will follow the Passivhaus housing scheme to provide residents with more efficient, warmer homes, with cheaper running costs.	1. Assess and identify a suitable site for PassivHaus scheme to be applied, based on optimal savings. 2. Contact developers and discuss requirements/design ideas, along with required consultants. 3. Apply measures. 4. Monitor performance and feedback from users	The site has houses designed to the first stage of PassivHaus which ensures that all properties are highly insulated, airtight buildings with low energy costs for the residents. The design has been updated so that air source heat pumps are being installed and all properties are gas free. Installation of PV to the apartments is being explored, primarily to support EV chargers which are being provided on site	914 tCO_2e	Medium term (2025/27) £105m	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
3.2 Improve energy performance of council housing stock			**3,229 tCO_2e**	**TBC**	
3.2.1 Improve energy performance of council housing stock. Improve energy efficiency of around 2,600 council owned housing units to EPC band C.	1. Survey the whole stock to develop and energy benchmark. 2. Carry out assessment to Public Energy Supplier funding that could be used to improve the energy profile of council housing. 3. Carry out an assessment to ECO (Energy Company Obligation) scheme and potential funding. 4. Pilot energy improvement work to a property increasing it from SAP D to B. 5. Carry out independent EPC ratings for each property. 6. Establish and deliver a building retrofitting programme for council housing based on EPC baseline and available budgets.	Condition surveys have been completed, with the vast majority of council housing stock being C rating due to previous installation work. Initial pilot schemes have been completed and are performing well. Individual work on really low (D or less) properties is also continuing alongside this. A bid has been successful under the Social Housing Decarbonisation Fund to bring approximately 110 social homes from an EPC D to and EPC C by 2025, with work beginning in 2023. Additionally 5 Loddon homes have received a similar improvement and23 homes at Groves have reached and SAP* rating of A.	3,229 tCO_2e	Medium term (2025/27) £7m	

**The Standard Assessment Procedure (SAP) is the methodology used by the government to assess and compare the energy and environmental performance of dwellings.*

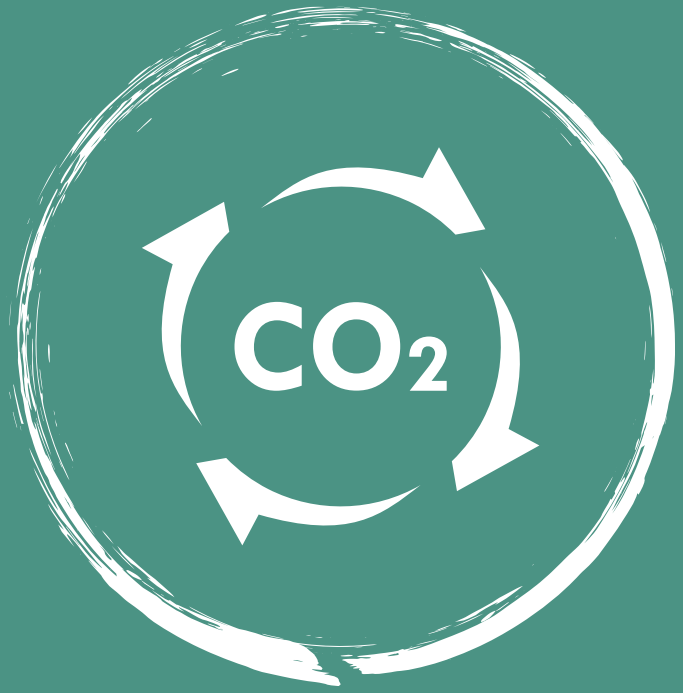
Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
3.3 By 2029 all local schools to be retrofitted			**4,400 tCO_2e**	**TBC**	
3.3.1 Upgrade various energy measures in the schools to improve their energy performance. Improving the energy efficiency of our schools will significantly reduce demand and save money on their bills. Works will typically include: LED lighting, Insulation measures, controls upgrades, heating upgrades / replacements and Renewable Energy Generation technologies.	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'. Priority given to energy 'payback' calculations of less than five years against energy spend.	Projects are ongoing in advance of the above, where realistic ROI can be achieved, primarily with solar PV. The assessment mapping exercise has taken place and is regularly monitored and updated, with a rolling programme for identifying unusual energy usage and scheduling retrofit work to address these. Retrofit interventions have been delivered across 18 schools. Over the next couple of years, we aim to deliver 10 additional projects for a total 1,500,000 kWh An initiative where schools buy the energy from council installed panels is being explored.	4,400 tCO_2e	Medium term (2025/27) TBC	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
3.4 75% of Homes to be EPC C rating or above			**55,490 tCO_2e**	**TBC**	
3.4.1 Develop and deliver schemes to support retrofitting of homes - ECO (Energy Company Obligation) offering. 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.	1. Set up the scheme. Identify the type of measures that can be implemented. 2. Identification of suppliers that will help deliver the scheme. 3. Scheme approval by Executive. 4. Launch the scheme – identify and contact the residents that can benefit from the scheme. 5. Continue advertising and implementation.	The ECO flex scheme is ongoing, with 1600 homes since the start upgrading, mainly from D to C or E-D. The ECO plus new scheme coming out in 2023 may also increase the uptake due to greater scope for customer viability.	25,690 tCO_2e	Long term (2028/30) Nil	
3.4.2 Develop and deliver schemes to support retrofitting of homes. 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.	1. Deliver Green Homes Grant LAD 1 2. Green Homes Grant LAD 2 3. Continue application for the various upcoming grants with different names in this area.	LAD 2 Completed. LAD 3 starting 17th of March 2023. A successful bid has been completed for the home upgrade grant 2.	Included in total	Medium term (2025/27) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
3.4.3 Engage with House Associations to support retrofitting of homes. Demonstrate and discuss the opportunities around retrofitting homes to social housing providers, towards greater energy efficiency, reduced energy usage and associated costs.	1. Discuss opportunities for collaboration with housing associations/landlord on social housing improvements. 2. Direct towards SHDF scheme. 3. Support delivery of measures. 4. Monitor and provide advice.	Commitment added to the Registered Preferred Partnership Agreement stating: 'Each partner to assist with reducing carbon use by using sustainable products to retrofit existing properties'. Actions in place to assist with meeting this commitment. Preferred Partners will have quarterly meetings with the Housing Partnerships and Projects Officer which will include discussions regarding moving the relevant actions forward. Each Registered Provider will have their own Sustainability/Climate strategies which will affect which properties are targeted for any retrofitting of homes.	Included in total	Long term (2028/30) Costs TBC	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
3.4.4 Support residents and local businesses to reduce their energy usage and carbon emissions by retrofitting their properties. This will include energy efficiency measures on the fabric of the building and replacing appliances with low carbon versions.	1. Identify partners and set up the scheme. 2. Provide loans through Green Bank Scheme to assist householders in their net zero carbon ambitions. 3. Householders will pay this back against a loan re-payment (plus interest) over a period of time (7, 10 and 15 years).	The Green Bank Scheme project is on hold due to staff capacity.	Included in total	Long term (2028/30) Costs TBC	
3.4.5 Smart City Cluster This project focus on energy savings from 'small' devices using a 'smart' plug to inform on technologies to reduce energy consumption.	1. Contact Measurable Energy regarding pilot under new funding. 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.	This project was explored but has been significantly delayed due to covid, and it is currently on hold.	Included in total	Long term (2028/30) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
3.4.6 Street lighting project Major street lighting LED Upgrade Scheme to significantly reduce energy consumption and equip the streetlights with remote control/monitoring.	1. Part-night lighting: Apply "part-night" timing to highway street lights, where they switch off between 0:30 and 5:30. 2. The council will explore how this scheme could be extended to other roads 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. 4. With the DfT reducing requirements for lighting signs and traffic bollards these will be included where possible. 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.	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 completed in the next few years. Approximately 2,000 lights now follow part night timing. Ongoing programme of upgrades of traffic signals to LED and more energy efficient control. Fine tuning lighting would require individual design for each road so will be a gradual process. Compared to 2019/20 figures this represents savings of 163 tCO_2e.	Included in total	Long term (2028/30) Costs TBC	



4. CARBON SEQUESTRATION

4. CARBON SEQUESTRATION

Annual Carbon Savings: 4,360 tCO_2e

Some emission sources will be nearly impossible to eliminate, hence some carbon sequestration will be required. This though will always be done as a final response, with emission minimisation being prioritised. In addition to minimise emissions, carbon sequestration projects offer considerable benefits to biodiversity and public health.

Key measures here revolve around land management, aiming to increase both the area utilised for sequestration and biodiversity through more trees and allotments, alongside maintaining or improving the quality of these areas, through better soil/grassland management. Through this approach trees are planted towards overall objectives through optimal schemes, be it as part of hedgerows, orchards or full woodlands. As trees take some time to reach their full maturity in terms of carbon sequestration and size, figures used are those for the final number of hectares that will be covered by any trees, hedgerows or orchard once fully grown.

2022 focused on groundwork with regards to the large-scale planting, to ensure the long-term sustainability of carbon sequestration projects, considered the essential maintenance and selection of the trees for each location. This will be supported by a Tree Strategy developed in 2023, which will help meet statutory biodiversity obligations, while maximising the wide range of benefits that trees and woods can deliver. Small scale and resident planting schemes within this wider work have already begun.

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.

Our 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. However, agricultural emissions remain a noticeable element of the boroughs overall profile, so alongside these goal, future iterations of the CEAP will incorporate targets to minimise these where possible by working alongside land owners to improve the efficiency of their operations.

Key Achievements this year:

- Alongside hedgerows and land management, the 40,242 trees planted between Nov 2021 and March 2023 have contributed towards offsetting an estimated 6,036 tCO_2e.
- Total of 4332 trees have been distributed to residents between November 2022 - March 2023 as part of the Garden Forest Scheme.
- Development of the Tree Strategy to help support improved management and maintenance of trees across the Borough.
- Local Nature Recovery Strategy in progress as a partnership as part of a Berkshire wide strategy.
- Trialling management of some sites by our countryside services team to help improve biodiversity net gain.

Action Changes from last year:

- 4.1.1 and 4.1.2 clarified to be for large and small scale sites respectively.
- Action 4.4 added which covers the upcoming adaptation plan.

Action / Co - Benefits	Description / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
4.1 Cover 170 hectares with new trees in the form of woodlands, hedgerows and orchards			**2,329 tCO_2e**	**£2.215m**	
4.1.1 Deliver large-scale woodland planting on council estate in existing parks and opens spaces sites to improve carbon capture and biodiversity net gain. Large-scale (greater than 5ha) woodland planting on council owned land on high carbon capture potential sites (e.g. arable land, improved grassland). These larger sites are determined by size and the need for further permissions at such scale.	1. Initial feasibility study, project plan and business case development. 2. Identify council owned land that is suitable for a major tree planting scheme. 3. Review our estate portfolio for agricultural land / improved grassland, which has the potential to be converted to woodland. 4. Engage forestry specialist contractor to advice on feasibility, constraints, and process. Prepare consultant brief. 5. Preparing plans and consulting public. 6. EIA Screening / Planning. 7. Grant and other scheme applications. 8. Ordering and planting trees (with protection). 9. Installation of other site infrastructure. 10. Produce forest management plan. 11. Handover to site manager (phased) - Ongoing management	Phase 2 of the project is now commencing and using data gathered from the Tree Strategy surveys and working with WBC internal Estate and Land Managers, 4 larger scale planting schemes are being developed. Following approval, Officers are now carrying out the required surveys and design process to implement numerous woodland planting schemes in the 2023/2024 planting season. Work to assess the council estate portfolio to identify additional areas for large scale woodland, hedgerow and orchard planting is ongoing.	Included in total	Medium term (2025/27) £705,500	

Action / Co - Benefits	Description / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
4.1.2 Deliver small-scale woodland planting on council estate in existing parks and opens spaces sites to improve carbon capture and biodiversity net gain. 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. Potential for the sites to be planted as Community Orchards for local food production and BAP targets.	1. Assessment of council estate portfolio to identify areas in existing public open space that has potential to be converted to woodland. 2. Carried out an internal review of constraints, costing, and scheduling. Preferably looking to target small low risk areas. 3. Preparing plans. 4. Implement public consultation on identified sites. 5. Grant and other scheme applications. 6. Ordering and planting trees (with protection). 7. Ongoing management - Produce/review woodland management plan. 8. Promote tree planting campaigns to engage with residents, schools and local businesses (e.g. National Tree Week).	To date, across Phase 1 25,910 trees have been planted on WBC Owned public open space, T&P owned public land and school sites, consisting of hedgerow, orchard and woodland planting, with adoption of semi-natural greenspaces on an ongoing basis. Officers have worked with volunteers, community groups, friends of associations and schools to provide opportunities for participation in planting activities to encourage community engagement.	Included in total	Medium term (2025/27) £618,000	

Action / Co - Benefits	Description / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
4.1.3 Support woodland and hedgerow creation on private sites. Set up a grant scheme for local private landowners to apply for funding to create new woodland and hedge roads on privately owned sites.	1. Produce Wokingham Borough Tree strategy to establish guidance for the delivery of the scheme. 2. Set up the scheme. Define the thresholds, suitability assessment and grants or plants. 3. Call for sites - Scheme promotion and engagement with local landowners Selection for piloting with a beacon site. 4. Tranche 1 - Planting plan design and approval, establishing contract negotiation, payment mechanism, compliance checking and other grant and carbon trading scheme support. 5. Review of tranche 1 take-up and feasibility assessment for tranches 2 & 3.	Officers developed a 'Greening the Borough' application on Wokingham Engage to provide opportunity for private land owners to register their interest in participation of the tree planting scheme. During Phase 1 approximately 10,000 trees have been planted on private sites across the borough in the form of hedgerows and woodlands.	Included in total	Medium term (2025/27) £705,500	

Action / Co - Benefits	Description / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
4.1.4 Make Wokingham a Garden Forest by promoting and encouraging residents to plant new trees. 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. 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.	1. Produce Wokingham Borough Tree strategy to establish guidance for the delivery of the scheme. 2. Design the scheme; include considerations on types of trees, maturity. 3. Provide the mechanism to select the right tree for the right place. 4. Establish the delivery mechanism. 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.). 6. Implementation of the scheme. System to take and register the orders - place tree orders and delivery. Record keeping. 7. Legacy - is there ongoing support offered. Long-term recording of benefits Opt-out (local offsetting) 8. Annual review and monitoring of the scheme.	Officers worked to develop a native tree palette that helped guide the species offering for the Garden Forest Scheme. Total of 4332 trees distributed to Wokingham residents over the two Garden Forest rounds. Pre-collection guidance, species information and planting advice developed and sent to all eligible applicants. Cross service and collaborative working with T&P Councils enabled collection points to be available across the Borough fostering an efficient, accessible and convenient collection process.	Included in total	Medium term (2025/27) £160,000	

Action / Co - Benefits	Description / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
4.2 Carbon sequestration by design - improving carbon sequestration rates in future land management decisions.			**2,031 tCO_2e**	**TBC**	
4.2.1 Develop the Wokingham Borough Tree Strategy to support long-term creation and retention of woodland and trees. This will help define: Appropriate species and locations, along with improving retention rate of trees and a greater veteran tree population. It will also encourage more planting on private land.	1. Identification of requirements for Tree Strategy. 2. Development of Feasibility study brief (including land appropriation and/or acquisition). 3. Develop and builds upon existing studies. 4. Identify land available and type of habitat. 5. Verify likely carbon sequestration. 6. Confirm more detailed cost estimates. 7. Allows milestone point for decision to continue with full funding.	A canopy cover survey was carried out and a tree report produced to provide carbon sequestration and asset value of Council owned trees. Working with internal and external stakeholders a draft Tree Strategy was developed and following review of the consultation feedback, a revised strategy is being produced and will be put forward in the June 2023 Executive meeting.	660 tCO_2e	Short term (2023/24) Included within 5.1 costs	

Action / Co - Benefits	Description / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
4.2.2 Incorporate carbon sequestration, habitats and biodiversity into the new Local Plan Update and associated policies and guidance.	1. Require a review of ability to enhance carbon sequestration rates for all new policies and design guides to be published alongside. 2. Independent assessment - design policy approach to: • Maximise carbon sequestration, including green and blue infrastructure encouraging low intensity (maintenance) habitat and carbon sinks. • Avoid loss of established habitat will help retain carbon stores. • Retain and enhance biodiversity (particularly botanic diversity) will aid carbon sequestration in soils.	The approach to this work is informed by the ARUP LPU Climate Change Evidence Base along with provisions 104-108 (Local Nature Recovery Strategies) of the Environment Act 2021. Preparation of the relevant LPU policies and associated guidance is expected to begin in Autumn 2023, however in the interim period, officer input from sustainability, ecology and green infrastructure specialists is being deployed to ensure carbon sequestration, habitats and biodiversity are covered as part of a whole-place approach to securing sustainable development.	42 tCO_2e	Medium term (2025/27) £10,000	

Action / Co - Benefits	Description / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
4.2.3 Support the development of the Local Nature Recovery Strategy to provide complementary funding source to aid land use change (LULUCF being a carbon sink) 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 sequestrate carbon correlates positively with biodiversity.	1. Develop the Local Nature Recovery Strategy through the Berkshire Local Nature Partnership. 2. Initial analysis of 30% target area - mapping exercise. 3. Develop Berkshire wide habitat inventory to update LULUCF. 4. Consultation exercise with stakeholders. 5. Revising the Local Nature Recovery Strategy and taking it through the local authority adoption process. 6. 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.	To be delivered under a Berkshire wide strategy, led by Windsor and Maidenhead council as the responsible authority with Wokingham Borough Council as a supporting authority. A project manager has been employed for 2 years to support this, split across all councils funding. A process of consultation and adoption will run for 18months from April 2023.	Included in total	Medium term (2025/27) £40,000	
4.2.4 Develop a Natural Flood Management partnership and scheme. Creation of wetland habitat as part of a programme of restoration of natural flood management processes to sequestrate carbon and reduce soil degradation.	1. Initial mapping exercise to identify locations that will provide wetland habitat and could be forward into the scheme. 2. Consultation exercise with stakeholders, including the Environment Agency, water companies, and other Loddon Catchment Partnership partners 3. Revising the Strategy and taking it through the local authority adoption process.	Across the borough there has been a significant reduction in flood risk from surface and groundwater. Working closely with environment agency to reduce fluvial flood risk in the borough. All new developments come with drainage responsibility so measures incorporated.	Included in total	Long term (2028/30) Costs TBC	

Action / Co - Benefits	Description / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
4.2.5 Work to transition Grassland Management to less frequent cutting scheme allowing wildflowers to bloom and set seed. 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.	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 2. Target of 12.5ha of wildflower grassland creation across Environmental Localities sites. 3. Working with ecosystem services team to manage land in more sustainable manner.	Exploring reducing the frequency of verge cutting and grass cutting. Expanding long grass/ meadow areas – extending BLUE heart campaign. Introducing more biennial grass cuts at existing long grass areas.	642 tCO_2e	Medium term (2025/27) £130,000	
4.2.6 Work to transition Grassland Management to support the Restoring Biological Processes. Natural greenspace grassland will perform better at carbon sequestration where: a) soil compaction from machinery is kept to a minimum, and b) structural diversity is encouraged by 'conservation' grazing (instead of uniform cutting).	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. 2. With the additional natural greenspaces being taken on alongside development, the scale required to justify an internally owned and managed conservation-grazing herd may be reached.	Trialling management of some sites by our countryside services team to help improve biodiversity net gain. Cut and collect trial is still to be agreed due to upfront costs and infrastructure required.	642 tCO_2e	Medium term (2025/27) Costs TBC	

Action / Co - Benefits	Description / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
4.2.7 Implement Citizen Science Engagement for Hedgerow Restoration. There is approximately 1534 km of (mapped) hedgerow in Wokingham Borough. Hedgerows are a good target for restoration work to increase the number of standing mature trees storing carbon.	1. TVERC product development to take PTES hedgerow survey data and project in an interpreted way to inform hedgerow management for land managers. 2. Tool can be used by Trees & Landscape officers for enforcement of the Hedgerow Regulations. 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.	On hold due to staffing issues at TVERC, which the product is reliant on. An alternative partner in PTES (peoples trust endangered species) is being explored in case of further delays, while aspects of the above local nature recovery strategy may be incorporated.	45 tCO_2e	Medium term (2025/27) £15,000	
4.3 Implement a programme of carbon sequestration opportunities			**Included in total**	**Nil**	
4.3.1 Engage the community with Community Garden Schemes. Allow new allotment site due to be opened in 2020 as part of the South Wokingham Strategic Development Location (SDL), contributing to positive behavioural changes.	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. 2. Explore the opportunity to plant hazel trees on sites for future purposes, including the local provision of hazel beanpoles, to reduce consumption emissions.	Funding bid for UoR research not successful but open lines of communication remain with UoR for future funding for similar research. Not Started hazel coppice creation/restoration	Included in total	Short term (2023/24) Nil	

Action / Co - Benefits	Description / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
4.4 Implement a climate change adaptation programme for the Council and Borough			**Neutral**	**£40,000**	
4.4.1 Draft a climate change risk register to support the future design and implementation of an adaptation plan for the Borough	1. Assess the climate risk that the Council and Borough are exposed to, looking at past, current and future climate impacts. 2. Draft a climate change risk register, involving all relevant services in the draft and maintenance of it 3. Use the risk register to support the design and implementation of an adaptation plan for the Council and Borough	Work has begun in Spring 2023 to draft a climate change risk register. This will support the design and implementation of a plan with adaptation options for the Borough. The design and implementation of the plan will be budget dependant. Provisional quotes for the drafting of a plan is circa £40k.	Neutral	Medium term (2025/27) £40k	

5. SCHOOLS & YOUNG PEOPLE

5. SCHOOLS & YOUNG PEOPLE

Annual Carbon Savings: Accounted for throughout the plan

With climate issues being a big focus globally and still growing, it is vital children learn about them. This will help deliver the skills they require to succeed in the upcoming green economy.

WBC recognises the next generation will be key to ensure the success and continuity of the CEAP 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 this Plan. Making the voices of young people heard should also encourage intergenerational learning meaning sustainable behaviour change is encouraged in their families.

Key measures here focus on engagement, awareness raising and education, passing across the same lessons we are 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.

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, as well as supporting schools in their journey to becoming more sustainable or even net zero carbon.

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. Due to limitations with capacity a number of these actions remain on hold, though some continue to be delivered separately by other departments and the schools themselves.

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, building retrofitting and active travel work with schools is accounted for in the relevant sections.

Key Achievements this year:

- Youth politics event held at the council chambers at Shute end in Feb.
- 12 schools actively engaged with ModeShift STARS.
- Multiple stalls for other sections included at the teachers summit.
- 33 Representatives now on the Youth Council.
- Climate Change specific GCSE Module introduced by government.

Action Changes from last year:

- Building retrofitting action moved into the specific section 3.3.1.

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
5.1 Encourage and support school children in the Borough to take an active role in reducing carbon emissions			**Neutral**	**TBC**	
5.1.1 Deliver annual climate emergency assemblies at local schools. Introduce discussions about Climate Emergency amongst children and young adults via an annual climate emergency assembly for all secondary school students.	1. Plan and deliver climate emergency assemblies with all secondary schools.	This project is currently on hold due to limited resources. A teachers climate summit was held at Holme Grange schools in July 2022, WBC coordinated the organisation and delivery of the event. Representatives from 31 schools from across the Borough attended the Summit. This will be replicated in 2023. Representatives from WBC attended a mock COP27 event at Holme Grange school in November 2022 and addressed questions from the students.	Neutral	Medium term (2025/27) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
5.1.2 Create climate committees in schools. Increase engagement with climate emergency issues and ownership of actions to reduce carbon dioxide emissions by providing an opportunity for students, teachers, parents and the local community to work together to support the delivery of climate related projects.	1. Produce information pack for how to set up a school council. 2. Provide contacts within Wokingham Borough Council to help/attend when needed. 3. One per school starting with secondary schools initially.	The Youth Council was set up in the summer of 2021. This is a borough wide initiative made up of 33 representatives from 11 schools, including all types of schools and covering a wide range of council areas. The climate emergency is one of the 10 Youth Council priorities, and 11/13 secondary schools send representatives into this.	Neutral	Medium term (2025/27) Nil	
5.1.3 Deliver the Youth Climate Conference. 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. 3. Additional events will continue to be explored and run in this area. 4. Creation of a youth charter to include climate change within. 5. A litter pick will be organised.	Youth politics event held at the council chambers at Shute end in Feb 2023 which included questions put to council on Climate Emergency - link Additional events continue to be explored to promote climate emergency in this or similar formats.	Neutral	Short term (2023/24) £2,000	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
5.1.4 Encourage schools to include climate emergency issues in lesson time. Encourage a commitment from schools to include climate change in lesson time, for all children in at least one subject i.e. science, geography, philosophy, PSHE.	1. Create a series of climate emergency lesson plans for Key Stages 1-3 initially. 2. An initial climate emergency lesson plan has been drafted for testing in secondary schools. 3. Create a pledge with criteria for all schools to sign; to be presented at the Secondary Federation. 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.) 5. Gain commitment from all schools and follow up to see how they are fulfilling the promise, with positive press coverage.	This action is now being covered by the new national agenda. The Department for education will now included this within the curriculum throughout primary and secondary schools from Sept 2023 and have also introduced climate change as a selectable GCSE (Key Stage 4) module. link WBC Climate Emergency Team are looking to establish a collaboration with the University of Reading to deliver this action in future.	Neutral	Medium term (2025/27) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
5.1.5 Encourage schools to adopt sustainable property and operational management practices that reduce carbon emissions and support the environment. Develop a sustained campaign to encourage schools to focus on environmental issues to promote behavioural change.	1. Work with schools to encourage building retrofitting and raise awareness about energy ratings, usage and consumption. 2. Work with schools to identify the school's carbon footprint including consumption emissions where possible, such as from food choices.	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 schools to address unusual energy spikes. This service has yet to be promoted formally but will be part of an offer launch via the new climate emergency webpage. This topic was included as a stall within the teachers summit in July 2022.	Neutral	Medium term (2025/27) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
5.1.6 Encourage Wokingham Borough schools to become net zero carbon and embrace sustainability. 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.	1. Assessment of sustainability initiatives implemented at schools to identify what they already do, their carbon emissions and how we can support them to become net-zero carbon. 2. Set up an incentive for all local schools to become green flag level by December 2025. 3. Produce an online resource including advice and a step-by-step toolkit for schools to exemplify best practice in the borough, including financial cost. 4. Learn from best practices amongst local schools. 5. Create an active network of support within and among schools.	This project is currently on hold due to limited resources.	Neutral	Ongoing Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
5.1.7 Support schools to implement carbon sequestration projects. Connect schools to voluntary sector and the community in projects such as planting in care homes, working with local allotments and farms.	1. Planting trees and plants to create a small-scale young forest in school grounds or council owned land. 2. Promote tree planting campaigns in schools grounds as part of education in climate change issues. 3. Make more allotment plots available to people on council owned ground to encourage young people to grow their own food.	Direct Officer engagement with schools across the Borough has resulted in 24 schools over Phase 1 (November 2021-March 2023) participating in the tree planting project. These consisted of hedgerows, small woodland and fruit tree planting. Work with Freely Fruity has continued over Phase 1 to connect schools with the charity organisation and support fruit tree planting. As the Tree Planting Project moves into Phase 2, focus will be on the larger scale planting schemes as detailed in the Greening The Borough Carbon Sequestration target. Officers attended the Teachers Climate Summit held in July 2022 to help promote the Tree Planting project and carbon sequestration initiatives.	Neutral	Medium term (2025/27) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
5.1.8 Waste reduction. Run competition between schools to promote recycling, reduce waste and increase children's awareness about the impact of waste and reduce recycling contamination.	1. Set up the competition guidelines and trial competition in a specific school. 2. Investigate Freecycle and Food Waste Hero for food schemes, to reduce food from schools go to waste and gets used, either for food banks or homeless shelters	This project is currently on hold due to limited resources.	51.93 tCO_2e (Out of scope)	Short term (2023/24) Costs TBC	
5.2 Celebrate schools achievements in climate emergency initiatives and inspire the future generations.			**Neutral**	**TBC**	
5.2.1 Launch sustainability awards for schools. Create an awards scheme to recognise and celebrate the efforts and achievements of local schools and their engagement with climate emergency.	1. Establish the criteria for all schools to participate. 2. Promote the school awards. 3. Engage children with climate emergency initiatives.	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 (2023/24) Costs TBC	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
5.2.2 Nurture creativity and resourcefulness amongst children and young adults. Create a culture of innovation and enterprise thinking on climate emergency solutions	1. Roll out the Dragons Den climate competition across all schools. 2. Help develop resourcefulness and creativity that is connected to climate change.	This project is currently on hold due to limited resources.	Neutral	Short term (2023/24) Costs TBC	
5.2.3 Implement a behavioural change programme within schools that would support the adoption of new behaviours, particularly within sustainability and climate change.	1. Identify and propose 3 pilot schools. 2. Set up focus groups with children to drive the platform design. Potential to use eco committees within schools. 3. Write a Business Case that includes timelines, activities and carbon savings to obtain funding. 4. Engage 200 children through pilot who are encouraged and rewarded for taking daily sustainable actions. 5. Deliver engagement campaigns to inspire children and school staff to adopt new, more sustainable behaviours.	This project is currently on hold due to limited resources.	Neutral	Short term (2023/24) Costs TBC	

6. WASTE AND RECYCLING

6. WASTE AND RECYCLING

Annual Carbon Savings: 30,548 tCO_2e as of 2023 (Out of scope)

To reach net zero carbon it is vital to minimise the amount of waste produced, following the waste hierarchy. As such a reduction in overall waste is the primary goal of the Waste Strategy, followed by an increase in the percentage of total waste being recycled, to minimise the amount going to landfill or incineration. This means the potential savings by 2030 are reduced as they are instead saved by lowering the total waste produced, as reflected in the key achievements.

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

The 70% recycling target is the overall goal of this section and so, similar to the transport section, this is how the overall saving is calculated and the other individual actions all contribute towards this.

The majority of 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 a last resort. It is also recognised that some outlying/unusual materials such as asbestos will never be fully recyclable or used for incineration, so 0% of waste going to landfill 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 massively to 65,709 tonnes from 71,624, with a recycling rate of 53%. This meant a total of 80,758 tonnes of CO2 savings in total and 1.15 tCO_2e per household, a huge achievement. This is thanks to the below actions.
- Waste Strategy Proposal is progressing with support, having identified significant cost and carbon savings.
- One round of identification and targeted improvements for food waste completed.
- Talks are now being delivered at schools and with community groups about the importance of recycling, reducing and reusing waste.

Action Changes from last year:

- Methodology and carbon savings updated to capture the latest and most accurate figures.

SDGs:

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
6.1 Achieve 70% recycling target			**23,011 tCO_2e**	**TBC**	
6.1.1 Implement a new waste and recycling collection system with improved facilities. 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.	1. Prepare consultants briefing, Options appraisal in early 2021, Market research and Decision making by end of 2021. 2. Devise and adopt the communications plan by 2022 3. Development of the Waste Strategy throughout 2022. 4. Communication with residents pre-delivery. 5. Delivery of new waste collection methods by March 2026 (three month). 6. Ongoing communication with residents post delivery. 7. Assess impact of the new initiative on the property stock. 8. The council operations are included in this target.	The Waste Strategy proposal which aligns waste collection with the government's stated objective of consistency, went to the Executive in March 2023 having been through scrutiny and public consultation. The improvements to the collection of waste are estimated to save £1m per year from the council's revenue budget as well as save CO2e through the increase in recycling that this brings as best practice demonstrates. Separation of contamination is ongoing. Council wise cardboard and cans are being recycled, along with separate food waste bins provided.	2,415 tCO_2e (Included in total)	Medium term (2025/27) £1.9m	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
6.1.2 Improve residents' engagement with waste and recycling initiatives via partner Green Redeem. Weekly customer email to 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.	1. Weekly email to prompt residents on presenting their waste / recycling. 2. Waste reduction campaign by GreenRedeem. 3. Climate Change Emergency campaigns. 4. Promote and prompt residents to renew Garden Waste. 5. Promote online bulky waste collection service.	This action has now ended, with numerous successful campaigns and communications having been run in this area including those on zero waste, community gardens, food waste, littering, repair cafes and soft plastics. As a part of wider engagement, the best methods for such will now be further investigated to identify the next steps for optimal effectiveness.	6,559 tCO_2e (Included in total)	Short term (2023/24) £126,240 (£31,560 per annum)	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
6.1.3 Target low participation areas to increase food waste tonnage to increase participation above 70%. Improve uptake in food waste recycling to increase food waste tonnage, hence reducing loss of recyclable material.	1. Veolia to identify areas where FW recycling requires improvement (completed). 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. 3. JA to take straw poll of FW food waste participation to ensure meets 50% figure being used. 4. Ticker system use to be investigated to identify in more detail areas requiring support with FW. 5. Letters to be sent out to low participation areas. 6. Build up and maintain a network of recycling champions made up of residents, primarily from those raising concerns about the service as they have demonstrated a concern and care about recycling issues. 7. Increase FW & 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 champions and increase signage accordingly. 8. Food waste directed from blue bags to food caddys to save funds against financial plan.	One round of identification and targeted improvements completed, with further rounds under feasibility to identify potential next areas. 20 champions in total, to identify and respond to issues quickly. Some reports from these already which have been investigated and addressed.	1,329 tCO_2e (Included in total)	Short term (2023/24) Costs TBC	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
6.1.4 Increase & improve facilities for glass recycling. Increase capture rate of glass from general waste through new collection methods, making it more convenient for residents and reducing loss of recyclable material.	1. Identify potential new specific and sheltered sites by communicating with parishes & town councils and other private businesses & partners such as FCC. 2. Install bottle banks once approved and communicate this with site management and residents.	Re3 are reviewing glass collection in conjunction with likely outcomes of environment bill as a way to collect glass from kerbside or other. Work is ongoing with 3 councils in Berkshire to review options.	1,279 tCO_2e (Included in total)	Medium term (2025/27) Costs TBC	
6.1.5 Proactive approach to partner with housing developers to deliver waste management facilities in new developments. Provide good waste and recycling facilities and communicate the system to new residents in new developments. Leading to greater recycling rates and quality.	1. Contact Developers to ensure they have access to the guidance document for providing waste & recycling facilities for single and communal dwellings. 2. Establish relationships with sales offices as well as site managers & directors of communal dwellings to further establish that the proper W&R materials are in place and appropriate for new residents moving in.	All developers in WBC database have been sent the 'W&R Guidance for Developers' document. Communications and progress in this area has improved with planning, meaning impacts can be made earlier in the process, leading to greater adoption rates from developers.	Neutral	Long term (2028/30) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
6.2 Achieve 3% of waste going to landfill			**7,537 tCO_2e**	**TBC**	
6.2.1 Identify, establish & deliver necessary measures to achieve zero waste to landfill from domestic properties. Reuse, recycle and recover 100% of WBC waste from domestic properties by moving waste up the waste hierarchy and increasing potential savings from landfill diversion.	1. Comprehensive communications campaign on "Reuse" and "Appropriate Recycling" including website, social media, GreenRedeem and target campaigns to divert as much recycles from waste as possible. 2. Identify contaminated recycling and leave uncollected. 3. Identify alternate markets for hard to recycle items.	Ongoing campaigns and actions are significantly contributing towards a reduction in waste to landfill. Consultation regarding enforcement is ongoing. Combustion has been identified as one potential avenue of energy generation to minimise existing fossil fuel use. 26,480 tonnes of waste going to EFW (so only 6% landfill) with a saving of £1,070,765 and providing 14.75 gWh this year.	7,537 tCO_2e	Long term (2028/30) Costs TBC	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
6.2.2 Engage school children in recycling via Green Team & Youth Council. Improve awareness of recycling and its benefits in school children. 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.	1. Speak about the circular economy at the Youth Council climate change themed event & link it to the borough's waste & recycling practices, introducing the circular economy. Include an activity for participants (September). 2. Develop activities for primary school aged children. A Wokingham waste & 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). 3. Deliver benches to the town centre area using plastic from recycled bottles as a major part of the material, with support from one of our waste collection companies and material supplied by schools.	1. Completed. Talks are now being delivered at schools, with this now also being applied to lesson plans at some schools. 2. Not Started. 3. Plan under development and relevant stakeholders for this initial stage have been contacted.	Included in total	Medium term (2025/27) Nil	






7. NEW DEVELOPMENT

7. NEW DEVELOPMENT

Annual Carbon Savings: Neutral as applies to future development.

With the need for new homes, including the level of need calculated through government planning policy, it is essential new homes are provided in a sustainable manner, which minimises the overall long-term cost of reaching net zero (with retrofit much more expensive). By using this information, combined with industry knowledge, and government policy, planning requirements are being established within actions in this section. These are preventative targets, with neutral savings against the 2030 goal.

The majority of the actions in this section are currently included within, or revolve around, the Local Plan Update process. This will review all existing planning policy and provide an opportunity to establish a new strategy to manage development locally as well as performance standards for all types of new development.

In 2022 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 and commercial properties. Through the Standards, the government has set out plans to improve the minimum 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 previous levels. Existing homes will also be encouraged to achieve higher standards, making homes warmer and reducing bills.

Building homes to net zero standards will result in massive savings compared to building standard homes. So while these actions are defined as neutral for the purposes of this plan, they demonstrate the significant scale of the benefits that can be achieved through their implementation.

Key challenges in this area will be convincing the government appointed Planning Inspector, who will examine any new planning policies, of the need for ambitious standards. Subsequently, the challenge will be to ensure developers achieve these standards due to the lack of government policy and regulation in this area. Therefore, engagement and cooperation with numerous parties is vital, including the council's Development Management and Delivery teams, Building Control assessors, developers, housing associations and the highways authority, as well as consulting with the local community and stakeholders.

Key Achievements this year:

- Adoption of Climate Change Interim Policy Position Statement, December 2022.
- Production of evidence base to support the preparation of the Local Plan Update with consultant ARUP.
- London Road social housing has achieved SAP A, as has Groveland.

Action Changes from last year:

- There are no new actions or change in this section.

SDGs: 2 ZERO HUNGER | 10 REDUCED INEQUALITIES | 12 RESPONSIBLE CONSUMPTION AND PRODUCTION | 13 CLIMATE ACTION

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
7.1 Towards the end of 2025, major residential development to be designed and built to achieve zero carbon.			**Neutral**	**TBC**	
7.1.1 Require major residential development to achieve zero carbon. Policy within the emerging Local Plan Update proposes to require residential developments of 10 or more dwellings to achieve zero carbon performance. A definition of what zero carbon means in this context will be provided. Where there is robust evidence that this cannot be achieved on site, as a last resort the Council proposes to accept appropriate financial contributions to provide carbon offsetting.	1. Prepare climate change evidence base to support of the Local Plan Update. 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. 2. Consult on draft policy as part of the Draft Local Plan. 3. Publish draft policy as part of the Pre-Submission Local Plan. 4. Promote draft policy through the Local Plan Examination. 5. Policy included within adopted Local Plan.	This ambition is being incorporated into the Local Plan Update. The climate change evidence has been completed and will inform improvements to the draft policy set out in the Draft Plan consultation. Draft Local Plan and the later Revised Growth strategy Consultation was completed, with analysis of main issues raised published. The LPU to date has sought to elevate the visibility of the Climate Emergency declared in the borough. Individual policies, and the spatial strategy have been developed in a way that fully embeds climate action and the targets of the CEAP. Further, the development CEAP and LPU has, and continues to be, a two-way process.	Neutral	Medium term (2025/27) Circa £75,000	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
7.1.2 Provide guidance to support major residential and non-residential development to achieve carbon neutrality. A Supplementary Planning Document (SPD) will support the new Local Plan Update by providing additional detail on how development proposals of all types are expected to demonstrate the achievement of the policy requirements, including zero carbon. The SPD will itself be subject to consultation and formally adopted, following the Local Plan Update.	1. Prepare draft Supplementary Planning Document. 2. Consult on draft Supplementary Planning Document. 3. Adopt Supplementary Planning Document.	This is to follow on from, and provide additional detail to, the Local Plan Update.	Neutral	Medium term (2025/27) Circa £25,000	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
7.2 From 2025, major non-residential development to be designed and built to achieve the BREEAM excellent standard.			**Neutral**	**Nil**	
7.2.1 Require major non-residential development to achieve BREEAM excellent 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.	1. Prepare climate change evidence base to support of the Local Plan Update. 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. 2. Consult on draft policy as part of the Draft Local Plan. 3. Publish draft policy as part of the Pre-Submission Local Plan. 4. Promote draft policy through the Local Plan Examination. 5. Policy included within adopted Local Plan. Planning policy in the emerging Local Plan Update proposed to require development proposals to demonstrate how they have met this standard (or future equivalent) as a minimum.	This is being incorporated into the Local Plan Update as in 7.1.1.	Neutral	Medium term (2025/27) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
7.3 Establish a spatial strategy and design framework which promotes active and sustainable travel, sustainable design and construction and enables biodiversity gain.			**Neutral**	**Nil**	
7.3.1 Minimise unnecessary travel from new development, better house design for working from home and better integrated IT capability. The Local Plan Update 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.	1. Consult on draft policy as part of the Draft Local Plan and Revised Growth Strategy. 2. Publish draft policy as part of the Pre-Submission Local Plan. 3. Promote draft policy through the Local Plan Examination. 4. Policy included within adopted Local Plan. Buildings, services and infrastructure need to be able to respond to new working patterns and needs.	This is being incorporated into the Local Plan Update as in 7.1.1.	Neutral	Medium term (2025/27) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
7.3.2 Require development, including the public realm, to be accessible to all and prioritise walking, cycling and other sustainable modes of transport. The emerging Local Plan Update 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.	1. Consult on draft policy as part of the Draft Local Plan. 2. Publish draft policy as part of the Pre-Submission Local Plan. 3. Promote draft policy through the Local Plan Examination. Policy included within adopted Local Plan Update. Developments 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.	This is being incorporated into the Local Plan Update as in 7.1.1.	Neutral	Medium term (2025/27) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
7.3.3 Require allocations for major development to secure smart and sustainable approaches that champion climate change resilience and adaptation. Buildings and spaces, 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 and the possibility of flooding, plus heat waves and droughts.	1. Consult on draft policy as part of the Draft Local Plan. 2. Publish draft policy as part of the Pre-Submission Local Plan. 3. Promote draft policy through the Local Plan Examination. Policy included within adopted Local Plan Update. 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.	This is being incorporated into the Local Plan Update as in 7.1.1. The Strategic Flood Risk Assessment (SFRA), part of the evidence base supporting the local plan process, includes modelling that incorporates climate change impacts as advised by Environment Agency guidance. An updated SFRA is currently being prepared to support future LPU consultation.	Neutral	Medium term (2025/27) Nil	
7.3.4 Provide positive policy framework for retrofitting existing buildings. There are limitations in the role of planning policy and decision making to influence existing buildings, but highlighting a permissive approach will assist in raising the profile of retrofit and provide a positive policy framework for when planning permission is required.	1. Consult on draft policy as part of the Draft Local Plan. 2. Publish draft policy as part of the Pre-Submission Local Plan. 3. Promote draft policy through the Local Plan Examination. 4. Policy included within adopted Local Plan. Apply a permissive policy approach to retrofitting the existing building stock with measures that enhance sustainability and energy efficiency will assist in reducing emissions.	This is being incorporated into the Local Plan Update as in 7.1.1.	Neutral	Medium term (2025/27) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
7.4 Support low carbon and renewable energy generation.			**Neutral**	**Nil**	
7.4.1 Provide positive policy supporting low carbon and renewable energy generation. Due to the benefits which low carbon and renewable energy generation bring to tackling climate change, the emerging Local Plan Update proposes a positive framework which supports such proposals unless there are unacceptable impacts that outweigh the benefits.	1. Consult on draft policy as part of the Draft Local Plan. 2. Publish draft policy as part of the Pre-Submission Local Plan. 3. Promote draft policy through the Local Plan Examination. 4. Policy included within adopted Local Plan. Provide greater clarity and assurance to local groups and businesses wishing to support renewable energy schemes in their areas. Leading to an increase of renewable energy generation projects being developed across the Borough by local businesses and community energy groups.	This is being incorporated into the Local Plan Update as in 7.1.1.	Neutral	Medium term (2025/27) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
7.5 From 2025, all new residential and non-residential buildings to be designed and built to be EV ready.			**Neutral**	**Nil**	
7.5.1 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. 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.	1. Consult on draft policy as part of the Draft Local Plan. 2. Publish draft policy as part of the Pre-Submission Local Plan. 3. Promote draft policy through the Local Plan Examination . 4. Policy included within adopted Local Plan. 5. Developers to be informed of policy and requirements shall be listed in planning application. 6. New developers to ensure that there is sufficient power serving new developments. 7. Establish the requirement for EV charging point infrastructure for new dwellings in the Borough where appropriate. 8. 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. 9. 100% new buildings are EV ready from 2025.	This is being incorporated into the Local Plan Update as in 7.1.1.	Neutral	Medium term (2025/27) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
7.6 From 2021 100% of council new development is built to carbon neutral standards			**Neutral**	**TBC**	
7.6.1 All new council properties non-residential will be built to the highest efficiency standards from 2021. Consult on all future council builds and developments and engaged with developers to ensure that carbon neutrality is consider from the design stage and associated cost is identified.	1. Initial assessment to all new council development to assess stage of development and possible interventions to committed buildings. 2. Assessment of possible interventions to Dinton Activity Centre, Arborfield School, carnival hub leisure centre and Toutley care home, among others. 3. Move away from 'gas provision' to cleaner technology for new build properties when possible. 4. Contact providers. 5. Agree program of works. 6. Implement viable measures. 7. Monitor performance to inform future, further and wider work.	Dinton Activity Centre construction complete to become boroughs first net zero building. Carnival Leisure Centre is one of the UK's most energy-efficient leisure centres. Air source heat pumps, solar panels (circa 1,800 sqm), careful building fabric detailing, and sustainable drainage systems all contribute to the scheme's overall performance, which has surpassed government targets.	Neutral	Medium term (2025/27) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
7.6.2 All new council homes will be built to the highest efficiency standards by 2024. Consult on all future council builds and developments and engaged with developers to ensure that carbon neutrality is consider from the design stage and associated cost is identified.	1. Initial assessment to all new council development to assess stage of development and possible interventions to committed buildings. 2. Assessment of possible interventions to Carnival Hub apartments and London Road among others. 3. Contact providers. 4. Agree program of works. 5. Implement viable measures. 6. Monitor performance to inform future, further and wider work.	The rebuilding of London Road and the first phase of Grovelands development that will total 23 new units has achieved SAP A. Extensive design work has been undertaken to ensure that the Carnival Residential development will achieve operational net zero carbon	Neutral	Medium term (2025/27) Nil	

8. PROCUREMENT

8. PROCUREMENT

Annual Carbon Savings: Neutral as applies to future procurement.

The Council recognises its ability to reduce its carbon emissions 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.

Engaging with and educating 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.

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.

Goals under this section also covers training staff on climate change and other methods through which climate change considerations can be embedded into the governance and decision making within the council. This is also done through a Climate Change Impact Assessment Tool which assists staff in identifying the potential impacts of projects and how they can potentially mitigate these.

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:

- Carbon reduction plan and emissions reporting required for substantial contracts.
- Assessment of suppliers complete to inform a future full scope 3 emissions review.
- Actions aligned with existing procurement changes to improve deliverability

Action Changes from last year:

- There are no new actions or change in this section.

SDGs:

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
8.1 By 2024, achieve sustainable procurement practice throughout the council as part of Corporate Procurement Strategy			**Neutral**	**Nil**	
8.1.1 Include a drafted approach to sustainable procurement within review of Procurement Strategy.	1. Produce and update to procurement strategy including the below points: • Goods contracts will consider whole-life costing including disposal. • Service and works contracts will include carbon neutrality or reduction measures either directly or indirectly by their design. • Procuring in line with business needs and climate emergency targets. 2. Seek consultation of strategy with SLT. 3. Achieve sign off of strategy. 4. Implementation and communication of strategy with CEM.	Initial strategy approved July 2021. Procurement board now in place.	Neutral	Short term (2023/24) Nil	
8.1.2 Develop a sustainable procurement culture and associated skills for green procurement.	1. Design of an e-learning module training people in green procurement techniques. 2. Complete E-learning design. 3. All staff in council who procure to complete training on CE.	CE E-learning module to be uploaded to site. Coaching feasibility study underway.	Neutral	Medium term (2025/27) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
8.1.3 Assess suppliers on sustainable procurement standards.	1. Evaluation of all suppliers to promote sustainability proportionate to contract and financial constraints. 2. Use of the Standard SQ / inclusion of a pass/fail phase in all contract evaluations. 3. All buyers/ commissioners taking embedded carbon into account when purchasing goods and services. 4. Performance Team to name the top 20 carbon producers from our suppliers, encouraging competition between suppliers, which may generate other benefits in terms of efficiency and cost savings.	Not Started	Neutral	Medium term (2025/27) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
8.1.4 Implementation of sustainable procurement KPIs amongst suppliers.	1. Consult with stakeholders, including local and national business during the development of council's sustainable procurement policy through a consultation event. 2. All buyers/commissioners embed carbon KPI targets into all suitable council contracts. 3. Provide clear and detailed instructions to suppliers on the council's sustainability requirements. 4. Investigate opportunities from big businesses to train SME and VCSE in bid writing, social value etc. 5. Contracts have sustainability KPIs included where suitable to contracts scope and will be performing within the 'green' threshold (or equivalent) for these KPIs.	Corporate Strategy to support greater KPI implementation around sustainability to begin development in summer 2023, following the new Government Procurement Bill.	Neutral	Medium term (2025/27) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
8.2 By 2024, the council will consider social value, including carbon neutrality, in all its procurement cycles			**Neutral**	**Nil**	
8.2.1 Adopt a WBC Social Value Policy Generation of a WBC Social Value policy, linking to corporate procurement strategy	1. Draft the WBC Social Value policy. 2. Consult with businesses and SLT. 3. Implement communication of policy via CEM.	Not Started	Neutral	Medium term (2025/27) Nil	
8.2.2 Promote local skills and employment 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.	1. All buyers / commissioners to impose SME/local supply targets on suppliers including reporting back of SME/local supplier subcontracting and carbon reduction. 2. Improve Skills for low carbon transition, including supporting those in traditional 'high carbon industries to retrain. 3. Performance Team name the top 20 suppliers supporting scheme.	Not Started	Neutral	Medium term (2025/27) Nil	

9. ENGAGEMENT AND BEHAVIOUR CHANGE

9. 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 actions throughout the plan requiring support from external and internal stakeholders including Council staff, residents, businesses, schools, Town and Parish Councils community organisations in shifting to more sustainable behaviours and uptake low-carbon technologies.

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 climate impacts that the Council and Borough are experiencing, along with providing examples and opportunities for change.

The carbon savings here will feed into carbon savings achieved elsewhere in the CEAP. The majority of the actions are therefore listed as 'Neutral' for their carbon savings against the 2030 target.

This section also covers business engagement. 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 incorporated into the upcoming Climate Emergency Communication and Engagement Plan. The intention is to develop and implement an engagement plan that is specifically targeted towards tackling the climate emergency and will dictate the actions within this section of the plan going forward.

Key Achievements this year:

- Let's Talk Climate deliberative process involved 60 community representatives in peer group sessions and surveyed 140 residents to gather recommendations around our climate work and vision.
- Online Planet Pledge campaign launched in Feb 2023 to inspire and encourage people to make a solemn promise to make a small change over the year to help address the climate emergency. 55 pledges have been received so far.
- The climate emergency newsletter continues to be successful, with over 6,000 subscribers.
- A Net Zero Heroes team of volunteer staff within the council has been formed. The aim of which is to meet regularly to discuss, communicate and engage with all staff in the organisation on how to reduce their carbon footprint.
- Active travel, LTP, cost of living and other major projects have all been incorporated into comms plan already and will continue to expand this, including a campaign around the upcoming COP28.

Action changes from last year:

- There are no new actions in this section.

SDGs:

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
9.1 Raise awareness in the community about the climate emergency agenda			**Neutral**	**TBC**	
9.1.1. Implement a Wokingham Borough Council Climate Emergency Communication and Engagement Plan. 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.	1. Options appraisal to inform on different engagement methods. 2. 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. 3. Investigate behaviour change barriers. 4. Develop a programme available for residents to shift to more sustainable choices and be rewarded for forming these new habits. 5. Draft the Climate Emergency Engagement Plan. This includes completion of an Equality Impact Assessment to measure the potential impacts on all members of the community. 6. Support Town and Parish councils and other key stakeholders to share best practice and lessons learned to set out a path to net zero carbon in their own operations, where possible.	Deliberative process titled "Let's Talk Climate" completed in 2022. This included a number of peer group sessions with a range of stakeholders from across the Borough and an e-survey for residents. Results and recommendations from these are now incorporated in this CEAP progress report. The results from Let's Talk Climate will feed into the upcoming Climate Emergency Communication and Engagement Plan, that will be developed in 2023/24.	Neutral	Short term (2023/24) £33,000	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
9.1.2. Actively communicate the progress of the climate emergency initiatives delivered borough-wide. **Provide and share information with residents on how to reduce their carbon emissions.** Develop a sustained campaign to provide information, advice, and signposting to promote behavioural change amongst residents to drive engagement with council initiatives.	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. 2. Deliver a campaign to businesses on COP26. 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. 4. Encourage residents with opportunities to improve energy performance of homes and buildings, reduce carbon emissions from transport, adopt new behaviours.	The CE newsletter now has over 6,000 subscribers and continues to deliver advice, support and motivation to residents, with recent positive responses on the new steer of articles. Articles are published regularly on the council website: link Active travel, LTP, cost of living and other major projects have all been incorporated into an independent comms plan already and the council will continue to expand this, including communications around upcoming climate-related events such as Earth Hour and COP28. A regular section in borough news (double page spread) continues. Online Planet Pledge campaign launched in Feb 2023 to inspire and encourage people to make a solemn promise to make a small change over the year to help address the climate emergency. 55 pledges have been received so far.	Neutral	Short term (2023/24) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
9.1.3. Support changes in work practices and behavioural change amongst council staff. WBC 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 & signposting to promote behavioural change.	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. 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. 3. Communicate environmental benefits and carbon savings of the Workplace Reimagined project to ensure staff are fully informed. 4. Investigate a behaviour change platform for business use.	Internal comms articles continue on key issues, to encourage colleagues to maintain 'greener' habits. A Net Zero Heroes team has also been formed within the council of staff motivated around this topic, to create and implement ideas both internally and externally towards reducing emissions and other environmental benefits. This includes a potential intranet page with links to articles. This will also be included in staff newsletters. A full coaching proposal has been submitted, alongside one for an assessment tool.	Neutral	Short term (2023/24) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
9.1.4. Support changes in work practices and behavioural change amongst local businesses. Provide information, advice, signposting to promote sustainable behaviours amongst local businesses (e.g. remote working, retrofitting buildings, solar PV installation). Promote working from home practices to reduce the proportion of staff at corporate sites for more efficient use of the space.	1. Host events to stimulate the conversation around sustainability in business between the council and the business community. 2. Ensure the conversation is kept going through regular climate emergency articles in the Business Matters newsletter. 3. Engage with providers to gather information on what more can be done with businesses. 4. Assessment of unintended consequences from the national lockdown (COVID-19) and the effects to energy consumption and site occupancy of corporate sites. 5. Incorporate into the Climate Emergency Engagement & Behaviour Change Strategy. 6. Provide monthly spotlights for businesses to demonstrate real actions they can take from people in a similar position. 7. 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.	The Climate Emergency and Economic Development teams are developing an offer for businesses and VCS organisations to understand and reduce their carbon footprint, uptake renewable energy options and work together with the Council on our net zero by 2030 goal. The Climate Emergency newsletter now has over 6,000 subscribers and continues to deliver advice, support and motivation to residents, with recent positive responses on the new steer of articles. Articles relating to climate emergency and the actions from the rest of the plan continue to be included in the Business Matters newsletter which has over 8,000 subscribers. This is being amended to make it more applicable to the relevant audience(s) and its changing to a monthly release from April. Local libraries signed up to the National green libraries manifesto.	Neutral	Short term (2023/24) Nil	

10. COUNCIL SPECIFIC ACTIONS

10. COUNCIL SPECIFIC ACTIONS

Annual Carbon Savings: 11,810 tCO_2e

The council aims to lead the way on carbon neutrality, by improving its own operations, to become a net zero carbon organisation by 2030. To do so a number of key areas have been identified to target high emission activities.

Currently the council emits approximately 7.6 $ktCO_2e$, which represents only 1.69% of the boroughs total. From the below summary the 3 main areas of council emissions are Energy, Transport and Waste, though the latter remains out of scope for the CEAP emission reporting itself. As such these are the key areas the actions in this section focus on, with the carbon savings for 10.1 accounted for in the above travel table and figures. The exceptions are actions 10.2 and 10.3, which is regarding the council fleet and buildings specifically in addition to above metrics and so is noted separately here.

The council also has an internal team of officers from all across the council, who are interested in driving sustainable shifts in the council, through behaviour change and workplace practice change. This group – Net Zero Heroes – is volunteering their time to gather regularly and assessing 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 communication.

Key Achievements this year:

- Feasibility study underway with Energy Savings Trust (EST) to assess and deliver cost and carbon savings around council fleet vehicles and grey mileage.
- Assessment of salary sacrifice schemes underway as part of wider council transition to EV plan.
- Feasibility study underway for a Liftshare scheme to analyse employee commuting patterns and car-share or active/ sustainable travel opportunities.

Action changes from last year:

- There are no new actions in this section.

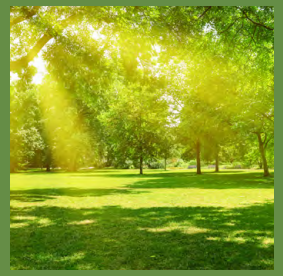
Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
10.1 Leading by example - Reduce by 70% CO_2e emissions produced by council related travel by 2030			**892 tCO_2e**	**TBC**	
10.1.1 Deliver a strategy to reduce miles produced by council staff work related travel. 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.	1. Carry out assessment for car clubs and produce a strategy 2. Analyse saving from Mileage paid to staff vs cost paid to provider 3. Aiming to reduce grey fleet miles by 30% from transport related trips.	Feasibility study underway with Energy Savings Trust (EST) to assess council fleet vehicles and grey miles.	78.31 tCO_2e (Included in total)	Medium term (2025/27) Costs TBC Nil from strategy itself	
10.1.2 Promote homeworking and remote working practices amongst council staff. In addition to home working, expand remote working practices in other locations to reduce unnecessary travel and the need for central office accommodation.	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. 2. Deliver a staff survey to assess working from home preferences amongst council staff. 3. Aiming to reduce the CO2 emissions travelled from council staff to work by 40% by 2022.	Managers have discussed the need for and preferences of home or flexible working patterns with staff, completing the staff surveys. Only those staff required will be coming into the office at this stage. The workplace reimagined survey is complete and will likely support this further.	405.42 tCO_2e (Included in total)	Short term (2023/24) Nil	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
10.1.3 Incentivise council staff to mode shift to active and sustainable transport or EVs. Investigate incentives that can be given to council staff to support their commute to work being more sustainable by implementing schemes that make such methods more accessible.	1. Carry out an assessment of viability of salary sacrifice schemes that could be offered to council employees for sustainable transport or Evs. 2. Assess alternative transport options for council staff. 3. Communicate these options and advice to relevant staff on how to reduce their commuting emissions. 4. Aiming to reduce the CO2 emissions from staff travelling to work by 10% by 2025.	Assessment of salary sacrifice schemes underway as part of wider council transition to EV plan. Feasibility study underway for a Liftshare scheme to analyse employee commuting patterns and car-share or active/ sustainable travel opportunities.	304.06 tCO_2e (Included in total)	Medium term (2025/27) £10,000	
10.2 Council's car fleet becomes entirely ultra-low emission by 2028			**11,810 tCO_2e**	**TBC**	
10.2.1 Ensuring 100% of the car fleet operated by the council is ultra-low emission by 2028 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.	1. Deliver the programme to transition WBC owned vehicles to be ultra-low vehicles by 2028. 2. Review lease contracts and establish a programme for transitioning leased vehicles to EV when engaging in new contracts. 3. Embed requirements for EV's or Low Emission vehicles in WBC Fleet Guidelines Policy and WBC Vehicle Procurement Guidelines. 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.	Feasibility study underway with Energy Savings Trust (EST) to assess council fleet vehicles and grey miles, and options to transition 100% of our car fleet to ultra-low emission vehicles by 2028.	45.39 tCO_2e	Medium term (2025/27) Costs TBC	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
10.2.2 All council run operations, including through partners, to utilise EV or ultra-low emissions vehicles. 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.	1. Include in procurement policies considerations for EV/ultra-low emission vehicles as a standard. 2. All buyers/commissioners to apply contractual policies when subcontracting services 3. Review the contracts with our transport providers and establish requirements to transition to ultra-low emissions vehicles 4. Optimise HTST routes to reduce mileage 5. 50% (which exceeds the statutory minimum of 35%) contract transport fleet will be hybrid or fully electric by 2028.	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.	Included in total	Long term (2028/30) Costs TBC	

Action / Description	Milestones / Outcome	Current Status	Carbon Savings	Timescale / Total Cost	RAG
10.3 By 2030 All council owned buildings will be retrofitted to carbon neutral standards.			**11,765 tCO_2e**	**TBC**	
10.3.1 Improve energy performance of council owned buildings to carbon neutral standards, excluding schools as this is a separate action. 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. Programme for retrofitting corporate assets based on energy performance baseline and energy improvement requirements.	1. Establish baseline energy performance for each council-owned asset. 2. Three year assessment, average kilowatt value (FY from 2017-20). 3. Develop Energy Management Plan. 4. Identify energy performance improvement requirements to all corporate sites and recorded in the Corporate Assets Carbon Reduction Database. 5. Programme for asset retrofit set up 6. Feasibility assessment on Woodley Library as a pilot project. 7. Establish guidelines of energy improvements that can be used for all corporate assets. 8. Deliver the building retrofitting programme.	Baseline and carbon reduction plan under development, while we continue to deliver improvements, with an average of 30 properties undergoing development each year to improve energy efficiency and renewables generation.	11,765 tCO_2e	Medium term (2025/27) £13.5M (£4.5M per year)	

COUNCIL EMISSIONS 2022/2023


COUNCIL ACTIONS AND EMISSIONS 2022/2023

In addition to these specific actions, the council monitors its gross emissions within the borough total to measure progress to become carbon neutral. This is done through the Local Authority GHG Accounting Tool, which applies standard emissions factors to usage figures and is designed specifically for local authorities.

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 an organisation we will begin measuring and targeting a reduction in scope 3 emissions. 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. Outsourced scope 3 emissions are not currently measured due to the large number of contractors that the Council works with.

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.

Scope	Emissions Type	Emission (tCO_2e)	Percentage
Scope 1	Heating	5,668.51	45.3%
	Fugitive Emissions	0.00	0.0%
	Authority's Fleet	46.57	0.4%
Scope 2	Electricity	5,997.43	47.9%
Scope 3	Staff Business Travel	198.20	1.6%
	Outsourced Fleet	2.56	0.0%
	Transmission & Distribution Losses	530.59	4.2%
	Water	12.75	0.1%
	Material Use	0.00	0.0%
	Waste generated from own operations	66.31	0.5%
	Outsourced Scope 3	Not currently measured	Not currently measured
Total Emissions **Green Tariff Electricity** **Final Emissions**		12,522.93 (-) 4498.07 **8,024.86**	**100%**

Emissions Summary:

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.

Transport:

The vast majority of council staff are continuing to work 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 internal "Workplace Reimagined" survey confirming optimal working patterns. This 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 244.78 tCO_2e across all scopes. Staff commuting figures fall under outsourced scope 3.

This area is being targeted by the actions in the council emissions section.

Waste:

In 2022/23 the council produced approximately 175 tonnes of waste, of which just over 35 tonnes was recycled, as shown in the below waste and recycling table. This waste is collected separately to domestic waste and includes those from council run public facilities such as libraries, leisure centres and community centres, but not schools. Therefore, initiatives here not only focus on council staff, but improving responses from the public through making recycling more accessible and clear.

Waste and recycling figures from council properties.

Type	Amount	tCO_2e
Glass	0.48	0.01
Commercial Waste	140.47	65.61
DMR (Dry Recyclables)	31.34	0.67
Food	3.324	0.03

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 97.4% and 11,665.94tCO_2e across all scopes. By excluding streetlighting, which the council has lower direct influence over, this figure would fall to 10,949.19 tCO_2e.

In response, as explained fully in the plan, the council is currently implementing a wide range of energy efficiency improvements and renewable energy generation where possible at all current and future properties.

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 4,498.07tCO_2e of these emissions would be negated in this respect. Therefore, the remaining total council emissions would be 8,024.86 tCO_2e, as shown above.

APPENDIX



APPENDIX 1. THE POLICY LANDSCAPE

WBC has established a strong track record for delivery of 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.

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 summits and government strategies will continue to impact the outcomes of our actions.

The COP27 Summit in Nov 2022 restated the importance of a global commitment to tackling climate change due to the current estimations that the world temperature is on track to well exceed 2˚C and cause intensive damage across the globe as a result. As such emphasis on meeting this goal and actions to do so in the face of challenges such as the energy crisis and covid were the primary focus, alongside nature based solutions.

The IPCC Synthesis Report 2023 again highlights the importance of keeping the global temperature rise to below 1.5oC before 2040, and challenge this now presents, outlining the devastating impacts missing this target would have on global ecosystems, markets, and human settlements. Previous iterations of the IPCC report focused on what can be done now, to avoid this disaster, including: slashing coal usage and subsidies, removing CO2 from the atmosphere directly through carbon capture and storage, curbing demand from transport, accommodation and diets. This version expands on the above by examining and explaining the opportunities and importance of adaptation in response to the inevitable changes and climate impacts as a result of warming up to this threshold and beyond.

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 Act 2021 defines a number of new measures to protect biodiversity and the environment more widely as part of the 25-year Environment Plan. 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 2021 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 by the target date of net zero by 2050. 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 2021 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 by 2030. 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 2021 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 by 2050. It targets doing so in a sustainable way that still supports growth by improving the effectiveness and therefore viability of low carbon options. Delivery plans and roadmaps of the specific investment under this strategy have since been released, including for carbon capture, hydrogen and heat pumps. These, alongside the carbon budget plan provide more specific detail to support authorities in planning and understanding potential funding sources.

The Heat and Buildings Strategy 2021 sets out the actions that central government will be taking to reduce emissions from buildings in the near term (2035) 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 2022 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, towards the goal of all new vehicles sold from 2035 being zero emission. This now includes an EV Smart charging action plan.

The Department for Education's (DfE) Sustainability and Climate Change Strategy 2022 acknowledges the vital role education plays in helping to tackle climate change and creating a better, greener world for future generations, aiming for net zero by 2050. The strategy also sets out how local authorities will need to consider environmental sustainability, carbon reduction and energy efficiency to develop solutions for projects.

The Green Finance Strategy 2023 sets out how the UK Government is working with a range of public financing bodies to commercialise and finance the green technologies needed for the transition, complementing steps taken through Powering Up Britain and the UK emissions trading scheme, to deliver cheap, clean British energy sources to heat our homes and power our industries. It includes how the UK will use our leadership and the expertise of our financial sector to accelerate the shift, alongside how nature and adaptation will play a part in delivering net zero by 2050.

The Powering up Britain 2023 paper sets out how the government will enhance our country's energy security, seize the economic opportunities of the transition, and deliver on our net zero commitments by 2050.

The Environmental Improvement Plan 2023 set out a comprehensive plan for halting and then reversing centuries of decline in nature in the next 25 years. It aims to deliver cleaner air and water in our cities and rural landscapes, protect threatened species and provide richer wildlife habitats This includes the introduction of 'Nature Markets', which enable private investment in nature, through creating units or credits that can be bought and sold. It also covers the growing problems of waste and soil degradation, alongside adaptation and the importance of sustainable development.

The CCS (Crown Commercial Service) Carbon Reduction Policy 2022 affects local authorities across the country as this is the primary source of procurement for many. This policy sets out clear targets for reducing net Greenhouse Gas (GHG) emissions to zero by 2050.

APPENDIX 2. WBC CARBON FOOTPRINT DATA

Table 5: SCATTER Summary GHG inventory table of Borough Emissions

Summary Greenhouse Gas emissions by Sub Sector	Total ($KtCO_2e$)
Residential buildings	302.40
Commercial buildings & facilities	55.67
Institutional buildings & facilities	19.28
Industrial buildings & facilities	88.11
Agriculture	3.31
Fugitive emissions	23.85
On-road	426.37
Rail	13.35
Waterborne navigation	0.00
Aviation	93.21
Off-road	2.93
Solid waste disposal	4.99
Biological treatment	0.00

Summary Greenhouse Gas emissions by Sub Sector	Total ($KtCO_2e$)
Incineration and open burning	0.62
Wastewater treatment and discharge	3.06
Industrial process	44.25
Industrial product use	0.00
Livestock	9.36
Land use	-17.38
Other AFOLU	0.00
Electricity-only generation	0.00
CHP generation	0.16
Heat/cold generation	0.00
Local renewable generation	0.00
Total	**1073.55**

Table 6: DESNZ Summary GHG inventory table of Borough Emissions

Wokingham Carbon footprint	$KtCO_2e$
Industry and Commercial Electricity	57.97
Industry and Commercial Gas	35.81
Large Industrial Installations	0.04
Industrial and Commercial Other Fuels	16.18
Agriculture	4.84
Domestic Electricity	57.08
Domestic Gas	180.28
Domestic 'Other Fuels'	11.44
Road Transport (A roads)	61.25
Road Transport (Minor roads)	94.15
Transport Other	7.55
LULUCF Net Emissions	-16.02
Total	**505.74**

DESNZ data (table 5 and table 6) and SCATTER data (Left-side table) are compiled using different methodologies, but again follow the standard Greenhouse Gas Protocol. The SCATTER model (Setting City Area Targets and Trajectories for Emissions Reductions) operates on 2019 data. DESNZ data is from 2020, as these are the most recent available, with this being the data used for our comparisons as it is from a government source, more consistent and more directly applicable in terms of scopes we are able to capture.

The DESNZ data therefore shows us that the boroughs emissions are comprised of emissions from: transport 32%, the industrial and commercial sector 22%, and the domestic sector 49%, with a contribution of -3% from carbon sequestration efforts.

What do the different emissions categories (or scopes) mean?

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).

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 DESNZ Local Emissions Summary represents Local Authority level data published annually by the Department for Energy and Net Zero.
- 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 DESNZ summary differ from the SCATTER summary?

- The DESNZ summary represents CO2 only; SCATTER also includes emissions factors for other greenhouse gases such as Nitrous Oxide (N20) and Methane (CH4). These are reported as a CO2 'equivalents (e)'. The DESNZ summary does not provide scope split; SCATTER reports include scope 3 emissions (i.e. direct, indirect and other categories).
- SCATTER data includes further out of scope emissions even within scope 2, those being motorways and railways, which are not considered within the boroughs scope of influence and so are removed from DESNZ data.
- The DESNZ summary categories are not directly consistent or mapped to the DESNZ LA fuel data which is available as a separate data set. SCATTER uses published fuel data and applies current-year emissions factors, whereas the DESNZ data calculations scale down national emissions in each transport area. Specifically with regard to road transport, DESNZ 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 3. SUSTAINABLE DEVELOPMENT GOALS

The 2030 United Nations Agenda for Sustainable Development, 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

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 the delivery of the Sustainable Development Goals.

1 NO POVERTY

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.

2 ZERO HUNGER

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.

3 GOOD HEALTH AND WELL-BEING

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

4 QUALITY EDUCATION

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.

5 GENDER EQUALITY

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.

6 CLEAN WATER AND SANITATION

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.

7 AFFORDABLE AND CLEAN ENERGY

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.

8 DECENT WORK AND ECONOMIC GROWTH

Wokingham Borough benefits from a below average unemployment rate and bringing more sustainable enterprises to the borough will only enhance our working population further.

9 INDUSTRY, INNOVATION AND INFASTRUCTURE

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 leaving within these new communities.

10 REDUCED INEQUALITIES

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.

11 SUSTAINABLE CITIES AND COMMUNITIES

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.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

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.

13 CLIMATE ACTION

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.

14 LIFE BELOW WATER

Protecting bodies of water is essential as they are facilities for residents to enjoy in green space for non-polluting recreational activities

15 LIFE ON LAND

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.

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

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.

17 PARTNERSHIPS FOR THE GOALS

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.

APPENDIX 4. GLOSSARY

Term	Definition
Carbon Baseline	The year against which target decreases in emissions are measured.
Carbon dioxide (CO2)	Carbon dioxide is a gas in the Earth's atmosphere. It occurs naturally and is also a by-product of human activities such as burning fossil fuels. It is the principal greenhouse gas produced by human activity.
Carbon Budget	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."
Carbon dioxide equivalent (CO2e)	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 CO2 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 tCO_2e
Carbon footprint	The amount of carbon emitted by an individual, organisation, geographical area or during the manufacture of a product in a given period of time.
Carbon offsetting	A way of compensating for emissions of CO2 by participating in, or funding, efforts to take CO2 out of the atmosphere. Offsetting often involves paying another party, somewhere else, to save emissions equivalent to those produced by your activity.
Carbon Sequestration	The process of storing carbon dioxide. This can happen naturally, as growing trees and plants turn CO2 into biomass (wood, leaves, and so on). It can also refer to the capture and storage of CO2 produced by industry.
Climate Change	A pattern of change affecting global or regional climate, as measured by yardsticks such as average temperature and rainfall, or an alteration in frequency of extreme weather conditions. This variation may be caused by both natural processes and human activity. Global warming is one aspect of climate change.
Climate Change Act (2008)	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. In 2019 this target was altered to achieve net zero emissions by 2050.
Climate Emergency	A situation in which urgent action is required to reduce or halt climate change and avoid potentially irreversible environmental damage resulting from it.

Term	Definition
Climate Emergency Declaration	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.
The Committee on Climate Change (CCC)	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.
Fossil fuels	Natural resources, such as coal, oil and natural gas, containing hydrocarbons. These fuels are formed in the Earth over millions of years and produce carbon dioxide when burnt.
Global warming	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.
Greenhouse gases (GHGs)	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).

Term	Definition
The Inter-governmental Panel on Climate Change (IPCC)	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.
Land Use, Land-Use Change, and Forestry (LULUCF)	Activities here provide a method of offsetting emissions, either by increasing the removal of greenhouse gases from the atmosphere (i.e. by planting trees or managing forests), or by reducing emissions (i.e. by curbing deforestation and the associated burning of wood).
Mitigation	Action that will reduce man-made climate change. This includes action to reduce greenhouse gas emissions or absorb greenhouse gases from the atmosphere.
Net zero carbon / Carbon Neutral	Net zero: A scenario in which GHG emissions arising from human activity are eliminated by minimising energy demands and meeting remaining energy demand with energy from renewable sources. In exceptional circumstances where elimination of GHG emissions from the activity is not possible, GHG emissions are minimised and offsetting local to the origin of the activity is used to equal any remaining emissions resulting in net zero.

Term	Definition
Paris Agreement (2015)	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.
Per-capita emissions	The total amount of greenhouse gas emitted by a country per unit of population.
Renewable energy	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 , wind, and solar.
SAP Rating	Definition of "The Standard Assessment Procedure (SAP) is the methodology used by the government to assess and compare the energy and environmental performance of dwellings.

Term	Definition
SCATTER	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.
The United Nations Framework Convention on Climate Change (UNFCCC)	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.

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WOKINGHAM
BOROUGH COUNCIL

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Appendix B. Climate Emergency Action Plan – Carbon Assessment Methodology and Assumptions

Where possible all data is gathered from official government figures, to the most local possible level. Unfortunately, with the limited availability of data in some areas or the complex, untethered nature of some of the actions, with how they interact and interlink with other actions, it is not possible to allocate specific savings to each one separately. These targets are therefore noted in the main plan as "Included in total" as they contribute towards the overall goal of that section. However, where possible to specifically identify savings underneath each major action, these are also defined below. Total savings from each overall action, reflecting those used in the summary tables in the main document, are highlighted in bold.

The most up to date data is used for every action where available, however this can cause differences in some cases where some government figures are more up to date than others. This is accounted for as much as possible within the calculations to demonstrate the savings which are generated from the additional benefit derived from these actions.

The most recent DESNZ data for the borough of 2020 is used as the baseline total for this report.

Carbon Emissions Trajectory

Carbon emissions trajectories are used to identify the expected outcomes from the combined actions of the council and all residents. These are best estimates as it is impossible to make exact predictions.

Current business as usual (BAU) projections from SCATTER, following a methodology based on numerous government strategies and incorporated targets and using 2019 BEIS data, estimate a 10% reduction by 2030. This has changed from previous iterations as it is now based on a more bottom-up approach, in order to minimise double counting by ensuring savings from government strategy do not overlap with those from council actions. It also enables the council 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.

The government is continually reviewing policies and is likely to make additional changes, which will also be incorporated into our carbon accounting methodology and projections once they are realised. The carbon emissions BAU trajectory is expected to change year by year, as it will be impacted by new government policies, and national and global events (e.g. COVID-19 pandemic), therefore this should be used as a reference rather than an absolute figure.

For example, the proven effectiveness of working from for many companies during the pandemic in 2020 is expected to continue and provide a large decrease in emissions from commuting. However, this remains a live document which we review and will update as required, alongside BEIS updates which are released annually but backdated 2 years.

Transport

Targets here are based around the vital overall goal of reducing ICE (internal combustion engine) mileage, both for private and commercial purposes, along with a separate section for the overarching strategy. They are therefore split under these 3 primary areas (1A,B and C), with the sub targets all contributing towards the main goals by a percentage (eg contributing 10% of the 50% total reduction).

Targets here are all inevitably slightly interlinked, but this methodology has been chosen to minimise double counting where possible. These are stretched targets which are aimed for in order to minimise emissions

where possible, though there remains a deficit in some areas, such as reducing travel and train usage actions, where we recognise more action is needed to meet these figures.

Currently the total mileage covered by private ICE vehicles (excluding freight) is 475,240,000 miles. Therefore, a 50% reduction in this total mileage represents a saving of 237,620,000 miles, which is broken down against the total number of petrol/diesel cars and motorbikes in the borough, as each has a different level of emissions per mile travelled and average annual distance covered. By using these figures, the total savings for each vehicle type has been calculated and added together to get the total savings possible. In this way the estimate is more accurate than using an average savings per mile covered across each type.

This is outlined more clearly in the below table:

Project	Current amount (per year)	Average usage (per year)	Current total figure	Target total figure	Total Reduction	Carbon Saving Units	Carbon Saving per unit	Total Carbon Saving (tCO2e)
50% Reduction in petrol private car mileage	66100	4741	31,338,0100	156,690,050	156,690,050	kg/Miles	0.29103	45,601.50
50% Reduction in diesel private car mileage	33900	4741	160,719,900	803,59,950	80,359,950	kg/Miles	0.27901	22,421.22
50% Reduction in private motorbike mileage	38000	30	1,140,000	570,000	570,000	kg/Miles	0.16559	94.3863
50% Reduction in ICE vehicle mileage	138000		475,240,000	237,620,000	237,620,000	kg/Miles		68,117.12

Within this total saving of 68,117.12 tCO_2e, this total target is then split into a number of actions which will each contribute towards a percentage reduction of the initial total mileage.

Action 1A.1: 33% Reduction From EV Registration

- 33% of total ICE mileage will be reduced by switching to electric vehicles instead.
- 33% of the total 68,117.12 is **44,957.29 tCO_2e**
- Importantly, the initial total mileage figure excludes current EV mileage as this does not apply to ICE miles.
- This target has been arrived at following consultant analysis and expected EV registration numbers by 2030.

Action 1A.1.3 - Review the residential charge point infrastructure for those who have communal parking facilities such as flatted developments.

- This is currently anticipated to deliver at least 136 new charge points.
- Each socket is estimated to save 5775kg of CO_2e per year
- This therefore represents potential savings of **785 tCO_2e per year** (5775/1000*136)

Action 1A.1.5 - Support local businesses, including commercial property owners, to transition their commercial fleets to EV and encourage their employees to switch to EV for private use to achieve a 20% transition to EVs.

- In 2017 it was found that 40% of all vehicles in the UK can be considered as grey fleet. In Wokingham Borough that would mean that 40,000 cars are used predominantly for commuting and business travel (100,000 x 0.4).
- The target aims to support the transition of 20% of this fleet 8,000 cars to EV (40,000 x 0.2).
- Average commuting miles in the UK is 788 miles annually. Therefore this 20% travels 6,304,000 miles every year (8000 x 788).
- Assuming the majority of these cars are petrol the emissions produced from this travel is **1,834.6 tCO_2e per annum** ((6,304,000 x 0.29103)/1000). This is the amount that could be saved by transitioning 20% of commuting vehicles to EVs.
- More information will be available at a later stage as we identify the number of taxis businesses operating in in the borough and the feasibility of these transitioning to EV.

Action 1A.1.7 - 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.

- While the overall savings are included in the total, the total currently identified savings as of this report are based on the number of active sockets currently installed.
- There are currently 112 active sockets
- There are currently an additional 77 sockets planned.
- Each socket is estimated to save 5775kg of CO2 per year
- 189 * 5775/1000 = **1091 tCO2 per year**

Action 1A.2: 5% Reduction From Reduced Travel

- 5% of total ICE milage will be reduced by removing journeys from the road.
- For these targets this means removing entire car journeys as the user utilises car share opportunities instead.
- 5% of the total 68,117.12 is **6,811.71tCO_2e**
- However, current actions currently reach 5,577.34, as detailed below, meaning there is a deficit of 1,234.36 to be addressed in upcoming iterations.

Action 1A.2.1: Engage businesses to promote homeworking and remote working when possible to achieve 30% reductions of CO_2 emissions travelled from employees of local businesses by 2022

- There are a total of 60,800 Wokingham Borough residents employed in the following roles which are office based and therefore could sustain remote working behaviours which have been enforced through the COVID-19 lockdown measures in 2020.

	Wokingham (Numbers)
Managers, Directors And Senior Officials	12,600
Professional Occupations	27,100
Associate Professional & Technical	14,100
Administrative & Secretarial	7,000
Total	**60,800**

- Assuming 30% of the (18,240 people) office-based workforce can maintain remote working or active travel to and from work this could lead to huge annual reductions in local car travel and associated emissions.
- In England in 2018, the average person travelled 788 miles per year for commuting purposes by driving a car or van. 14.4 million miles are therefore travelled each year by 30% of this sector of the workforce (788 x 18,240).
- Multiplying this mileage by 0.29103KgCO_2 of emissions per mile by an average petrol car ((0.29103 x 14,400,000)/1,000) means that 4,183 tCO_2e could be saved per annum if sustained.

Action 1A.2.2 - Promote the Liftshare scheme through My Journey to help individuals and businesses develop bespoke travel policies

- The target is to achieve a 10% reduction in the number of car/bike trips to and from businesses within the borough by March 2025 by implementing a lift share scheme.
- Using the above data in 3.1, but based on a 10% figure instead, total savings for this target are **1,394 tCO_2e per annum**

Action 1A.3: 2% Reduction from Increased Public Transport Use

- 2% of total ICE mileage will be reduced by switching to use buses or trains instead.
- 2% of the total 68,117.12 is **2,724.68 tCO_2e per annum**
- This figure is based on doubling bus and train usage numbers, as detailed below.
- However, as there are no actions around trains at this time, these savings have been temporarily removed, meaning actions currently reach 173.73 as detailed below, meaning there is a deficit of 2,550.95 to be addressed in upcoming iterations, primarily from trains.

Action 1A.3.1: Double Bus Usage

- There were 2,800,000 bus passengers recorded for 2019 in Wokingham. The kilometres travel on local bus services accounted for 2,200,000 km/year. The average km per passenger per year is therefore 0.79 km.
- Buses emit 103.0 gCO_2 per passenger per km, multiplying this by the average km per passenger per year (0.79) equates to 81 gCO_2 emissions per passenger per year.
- The average petrol car emits 180.8 gCO2 per km. Multiplying this by the average km per bus passenger per year (0.79) equates to 142.9 gCO2 emissions per passenger per year.
- We are assuming residents are replacing a car journey with a bus journey for this action. Therefore, the new 2,800,000 bus passengers will have reduced their carbons emissions from a private vehicle (2,800,000 x 142.9 gCO2), this equates to 400.01tCO2 per year.
- Multiplying the emissions per bus passenger per year (81 gCO2) by the number of bus passengers recorded for 2019 (2,800,000) equates to 226.8 tCO2 per year.
- Therefore, the difference from switching from cars to bus for this many people would save (400.01-226.8)= 173.3 tCO_2e per annum.

Action 1A.3.9 - Re-optimising the routes and capacity for school buses by re-tendering the contracts.

- Initial 14 routes covered 93,750.49km per year
- Multiplied by the kg per km for euro6 buses (0.04) or 0.265 for one diesel route covering 6,054.33
- This equates to 5,114.22 $kgCO_2e$
- New 8 routes cover 52,042.83km per year
- Multiplied by the same emissions factors (including identical diesel route)
- This equates to 2,562.83 $kgCO_2e$
- Therefore the change has resulted in 2,551.38 $kgCO_2e$ of savings, or **2.55 tCO_2e per annum**

Action 1A.4: 10% Reduction From Increased Active Transport use

- 10% of total ICE milage will be reduced by switching journeys for active transport methods such as walking and cycling.
- 10% of the total 68,117.12 is **13,623.42 tCO_2e per annum**
- However, current actions currently reach 16,163.4, as detailed below, meaning there is a surplus here of 2,539.97 which could cover some of the previous sections' deficits (in terms of carbon accounting towards the overall savings estimates by 2030).

Action 1A.4.1 - To provide more primary school children with the opportunity to develop practical skills and an understanding of how to cycle safely, leading to greater chance of adoption, both now and in the future.

- Currently there are approximately 2000 children trained across all levels of bikeability at the boroughs primary schools each year.
- On average, children travel 1.6 miles to primary school[1]. Multiplying these figures together means 6,400 miles are travelled per day to and from school by these children ((1.6 x 2000) x 2).
- There are 190 days in an academic year meaning this small group of children will be travelling 1,216,000 miles per year (6,400 x 190). If assuming these children will all transition from being driven to and from school to cycling to and from school:
- Multiply this figure by the carbon emissions produced per mile driven in an average sized petrol car ((1,216,000 x 0.29103$KgCO_2e$)/1000) to find that **353.89 tCO_2e** emissions could be saved per academic year

Action 1A.4.2 - Encourage and support local schools to join Modeshift Awards scheme for active and sustainable travel to achieve a 10% reduction in the number of children being driven to school by March 2026.

- There are 21,757 children in the borough who attend a state primary or secondary school in the borough. 35.79% are driven to school equating to 7,786.8 pupils.
- A 10% reduction of those being driven is therefore 778.7 less pupils being driven to school.
- Children travel on average 3.2 miles a day to and from primary school in England. Multiplying this figure by the 10% reduction aimed for is 2491.8 miles travelled per day (778.7 x 3.2).
- This is then multiplied by 190 (school days) to calculate annual mileage by this cohort 473439.3 miles per academic year (2491.8 x 190).
- Finally this figure is then multiplied by the emissions per mile produced from an average sized petrol car shows potential savings of **137.7tCO_2e per annum** ((473439.3 x 0.29103)/1000).

[1] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/476635/travel-to-school.pdf

Action 1A.4.3 - Role out the Healthy School Streets programme to help achieve a further 10% reduction in the number of children being driven to school by March 2026.

- See the calculations for Action 1.4.2 as this follows an identical calculation.

Action 1A.4.4 - Increase the uptake of cycling from local business by promoting the Love to Ride programme to reduce the CO2 emissions from a driven commute by 5%.

- There are 85,900 economically active residents in Wokingham Borough. We are assuming they all currently commute to work in this calculation.
- 63% of residents in Wokingham Borough usually drive to work, equating to 54,117 residents.
- A 5% reduction and shift to active transport for work would be 2,705 people who usually drive to work.
- The average annual mileage for commuting is 788 miles. Multiply these figures together equates to 2,131,540 miles a year (2705 x 788).
- Multiplying this figure by the emissions per mile of an average petrol car shows that **620 tCO_2e per annum** can be saved a year from this amount of people shifting their annual commute to zero emission modes ((2,131,540 x 0.29103)/1,000).

Action 1A.4.5 - Develop the Local Cycling and Walking Infrastructure Plan (LCWIP) to be borough wide and implement 50% LCWIP by 2030 to increase cycle modal share by 4% and increase walking modal share by 5%.

- The total annual mileage in the borough by all modes is 475,240,000.

Cycling

- National Modal Share by distance travelled for cycling is 1%. This equates to 4,752,400 miles in Wokingham Borough (475,240,000*0.01).
- The target increase to 5% share would mean a rise to 23,762,000 miles being cycled rather than driven (475,240,000*0.05)
- This is a difference of 19,009,600 miles (23,762,000-4,752,400)
- Multiplying this figure by the emissions per mile of an average sized petrol car means saving up to 5,532.36 tCO_2e per annum ((19,009,600 x 0.29103)/1,000)

Walking

- National modal share by distance travelled for walking is 3%. This equates to 14,257,200 miles a year in Wokingham Borough.
- An increase to 8% of modal share would be a further 23,762,000 miles a year walked instead of driven (4,752,400*5)
- This would mean 6,915.45 tCO_2e could be saved annually ((23,762,000 *0.29103)/1000)
- Therefore the total savings from this action would be 12,447.81 tCO_2e per annum

Action 1A.4.6 - Deliver engagement and cycle training events across the Borough to achieve a 2% increase in the number of Wokingham Borough residents regularly walking and cycling for leisure and utility by March 2022 (excluding over 60s).

Cycle

- In 2019 it is thought that 38% of Wokingham Borough residents cycle at least once a week. We have clarified this target by using only the working age population of the borough 103,000 as

children and over 60s are covered in other targets. 38% of this figure is 39,140 residents cycling at least once a week (103000 x 0.38).

- A 2% increase will be 2,060 more residents cycling regularly.
- The average length of a cycle ride in the UK is 3.3 miles. Therefore, weekly mileage from this 2,060 residents is 6,798 miles a week cycled (3.3 x 2060), assuming this is instead of driving.
- Multiplying this figure by the emissions per mile of an average petrol car and further multiplying this by 52 weeks in a year equates to annual emissions of these journeys if driven to be 102.88 tCO_2e per annum (((6798 x 0.29103)x 52)/1000).

Walking

- 92% of Wokingham Borough residents walk at least once a week which is 94,760 people.
- A 2% increase is 2,060 residents.
- Annually, the average walking miles for people living in 'rural towns and fringe' regions is 183 miles or 3.5 miles per week.
- Therefore this 2% increase in residents walking will save 376,980 miles (183 x 2060) which would have otherwise been driven (assumption).
- These miles, if driven, would emit a total of 109.71 tCO_2e per annum ((376,980 x 0.29103)/1000).
- Therefore the total savings from this action would be **212.59 tCO_2e per annum**

Action 1A.4.7 - More residents over 60 riding bikes for travel to achieve a 3% reduction in car use by residents over 60.

- 39,468 residents who are 60 or over according to the mid-2019 population estimates.
- Assuming an average annual mileage driven is 4741 miles. Total miles for this group is 187,117,788 a year (39,468 x 4741)
- A 3% reduction on this would represent a fall of 5,613,533.64 miles (187,117,788*0.03)
- Emissions for this amount of mileage is 1,633.71 tCO_2e per annum ((5,613,533.64 x 0.29103)/1000).

Action 1B: 22% decrease in road freight

- An Industrial Freight Management policy designed to reach this 22% reduction target would reduce Van and Lorry total mileage.
- This would save a total of **23,240.92 tCO_2e**, as detailed in the table below.
- There is also a new target around cargo bikes, though savings for this have yet to be attributed.

Project	Current amount (per year)	Average usage (per year)	Current total figure	Target total figure	Total Reduction	Carbon Saving Units	Carbon Saving per unit	Total Carbon Saving (tCO2e)
22% reduction in Van mileage	8,400	13,000	109,200,000	85,176,000	24,024,000	kg/Miles	0.41028	9,856.56
22% reduction in Lorry mileage	700	62,751	43,925,700	34,262,046	9,663,654	kg/Miles	1.38502	13,384.35

Renewable Energy Generation

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 the method used for calculating the savings possible, identifying how many tCO_2e the renewable generation in our borough will reduce the need for such alternatives.

Action 2.1 Increase the generation of renewable energy through investment in solar farms to generate 49,000 MWh per year

- The current trajectory for the solar farm estimates that 2 farms will generate approximately 49,000,000 KWh per annum of electricity by 2030.
- Using the UK Government GHG Conversion Factors[2], 0.19338 kg CO_2e is emitted for every KWh generated by the current grids composition (including fossil fuels).
- In addition transmission and distribution losses add an additional 0.01769 kg CO_2e emitted for every KWh, making a total of 0.21107 kg CO_2e.
- Hence, replacing these fossil fuel related emissions with 49,000,000 KWh generated from purely renewable sources, with 0 emissions, will save **10,342 tCO_2e** (0.21107 x 49,000,000 / 1000).
- Emissions here are associated with the generation of electricity at a power station and do not include transmission and distribution for simplicity, though this figure would be marginal.

Action 2.1.1 – Solar Farm 1 at Barkham

- This is estimated to deliver 29,000 MWh of the 49,000.
- Using the same above calculations this represents savings of 6,121 tCO_2e.

Action 2.1.2 – Solar Farm 2

- This is estimated to deliver 20,000 MWh of the 49,000.
- Using the same above calculations this represents savings of 4,221 tCO_2e.

Action 2.2 Increased renewable energy generation to generate equivalent to 1550 kWh per household

- The projected pathway data provided by SCATTER, refers to the anticipated generation calculated in 2030. Total small-scale solar PV is calculated in TWh generated, based on defined rates of total installed capacity (GW). The TWh/GW capacity generation efficiencies from 2017 - 2030 are taken from the National Grid's Two Degrees scenario (2019) for large scale solar PV, but the year on year rates of change are applied to the domestic / small scale solar PV recorded.
- The estimated annual generation for the borough by 2030 from the above via SCATTER is 106,938.43 mWh per annum.
- As of 2020 the borough generated 30,763 mWh of renewable electricity.
- This means a difference of 76,165 mWh.
- This will therefore account **for 16,078 tCO_2e per annum** (0.21107/1000 x 76,165)

[2] https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022

Action 2.2.1 Set up a Community Energy Fund for Wokingham, and through this generate an average of 27,000 kWh/year of renewable energy from the installation of small-scale PV systems funded through this scheme.

- This energy generation relates to an estimated carbon saving of **5.69 tCO_2e per annum** (0.21107 x 27,000 / 1000)

Action 2.2.2 Support residents to reduce their energy usage and carbon emissions and increase the uptake of renewable energy installations

- It is estimated that 15,000 households apply for funding for the installation of PV by 2030.
- Typical small-scale UK installations are around 15 to 25 square metres. A 3kWp system could comprise 15 panels taking up an area of 20 square meters and will generate roughly 2,500kWh per annum[3]
- Therefore 15000 would generate 37,500,000 kWh.
- This equates to estimate carbon savings of **7,915 tCO_2e per annum** (0.21107 x 37,500,000/1000).

Action 2.2.3 Support local businesses to reduce their energy usage and carbon emissions and increase the uptake of renewable energy installations

- Through a combination of measures, a 5% reduction in emissions from industry and commercial buildings emissions would lead to a saving of 5.5kt, or **5,500 tCO_2e per annum.**
- This is as the current emissions are 110kt, so this is multiplied by 0.05 to find the above.
- This is on top of some of the additional and separate actions on retrofitting.

Savings this year:

- With the generation of 27,113 MWh renewable electricity in the last recorded year (2021)[4], the borough saved 5,722 tCO_2e against fossil fuel sources (27,113*0.21107).

Retrofitting Domestic and Commercial

Action 3.1 Gorse Ride Regeneration Project

- The Gorse Ride development consists of the state regeneration of 249 houses which will be design to net-zero carbon standards with no supply of domestic gas.
- There were approximately 70,000 households registered in the borough in 2019.
- It is assumed that the carbon footprint per house is 3.67 tCO_2e (256.7/70,000*1000).
- The 249 houses in this regeneration project will therefore provide savings of **913.83 tCO_2e per annum** once completed (249 x 3.67).

Action 3.2 Improve energy performance of council housing stock

- A bid for retrofitting 1,100 of council owned homes from EPC D to C has been successful.
- This represents a saving of 2.936 tCO_2e per house (detailed in 4.4 below).
- 1,100 * 2.936 = **3,229 tCO_2e per annum**

[3] Renewable Energy Sources, Carbon Trust 2018

[4] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1115981/Renewable_electricity_by_local_authority_2014-2021_Nov22update.xlsx

Target 3.3 By 2029 all local schools will be retrofitted

Council Baseline (2018)	Electricity kWh	Electricity tCO_2e	Gas kWh	Gas tCO_2e
Schools	9,284,409.41	1795.42	13,026,155	2605.23
			Total CO2 emissions schools	**4,400.65**

- Energy figures for schools for electricity are 9,284,409.4 kWh per annum and gas 13,026,155 kWh per annum as per 2018 baseline.
- Considerations for transmission and distribution factors have already been accounted for in the council estates and corporate portfolio carbon footprint.
- Therefore, electricity related emissions for schools are 2,373.10 tCO_2e and gas related emissions are 2,660.98 tCO_2e per annum.
- Therefore, total potential savings are **4,400.65 tCO_2e per annum.**

Target 3.4. 75% of Homes to be EPC C rating or above

- Government EPC figures show that there are currently 57,383 EPC certificates for the borough (2022)
- 27,485 of these are currently rated C or above, which is 47.89%
- Aligning this to the 70,000 homes figure from previous calculations, to account for homes missing certificates, this would relate to 33,600 homes.
- Reaching 75% of 70,000 would mean 52,500 homes at C rating or above.
- This is therefore an increase of 18,900 homes.
- As the majority of ratings below C are in the D category, this has been used to find the average savings from improvement.
- It is suggested that going from EPC rating D to C can reduce emissions by up to 80%.
- This would be savings of 2.936 tCO_2e per house, (out of the total 3.67 from, above).
- 2.936*18,900 is **55,490.4 tCO_2e per annum**.

Carbon Sequestration

Action 4.1 Cover 170 hectares with new trees in the form of woodlands, hedgerows and orchards

- This has a carbon sequestration potential of 7.83 tonnes of CO_2e equivalent per hectare in first year of planting, 13.7 tonnes thereafter within the research average.
- Therefore 170*13.7 = **2,329 tCO_2e per annum**

This is the estimated yearly saving, 2 years after project completion. Trees planted for the project will be UK and Ireland Sourced and grown. This will help with reducing the risk of pests and disease as well as reducing the carbon emissions related to transporting trees from overseas.

Action 4.2 Carbon sequestration by design - improving carbon sequestration rates in future land management decisions

Action 4.2.1 Develop the Wokingham Borough Tree Strategy to support long-term creation and retention of woodland and trees.

- Allocated sites within current iteration of the LPU sum to 460ha. On the basis that approximately a quarter of this is nudged towards being green infrastructure with a high carbon sequestration rate (mix of woodland and species rich grassland with roughly 8 tCO_2e per ha sequestration rate) and half the green infrastructure is delivered by 2030, the policy and strategy focus will cause 460 tCO_2e benefit by 2030.
- Alongside this, if the Local Nature Recover Strategy and Natural Flood Management approach can tilt the balance that an additional 20ha of land use change (at a similar sequestration rate to green infrastructure above) is supplied to the BNG and environmental services markets by 2030 then this will lead to another 160 tCO_2e per year.
- Total estimated carbon sequestration **660 tCO_2e per year**.
- Improving the retention rate of trees and encouraging planting of woodland on private land - The longer trees are standing the longer carbon is locked up.

Action 4.2.2 Include in the Local Plan Update policy for carbon sequestration potential.

- Assuming roughly 70ha of green infrastructure created in the LPU cycle. A nudge of 10% cover from high intensity maintenance grassland to low intensity species rich, brought about by good design guiding, could sequestrate a further **42 tCO_2e per year**.

Action 4.2.3 Develop the Local Nature Recovery Strategy to provide complementary funding source to aid land use change (LULUCF being a carbon sink)

- On assumption that an average of 2.5 units per ha (not including current woodland area) can be generated @ £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

Action 4.2.4 Develop a Natural Flood Management partnership and scheme

- Within Natural England's Research Report 43, the change of use from arable land to wetland has examples of carbon sequestration rates of circa 8 to 17 tCO_2e per hectare per year.
- Working from figures in the report, on the basis that soil carbon loss under agriculture might be at a rate of 0.6% per year and carbon stocks for this habitat average 43 tCO_2e per hectare, natural flood management measures that prevent degradation might prevent 0.25 tCO_2e per hectare being released into the atmosphere.

Action 4.2.5 Work to transition Grassland Management to less frequent cutting scheme allowing wildflowers to bloom and set seed

- A goal of **642 tCO_2e per annum** would be targeted to be met in the period 2025 to 2030, similar to the below calculations.

Action 4.2.6 Work to transition Grassland Management to support the Restoring Biological Processes

- Converting 1/3 of the approx. 125ha of improved grassland within Environmental Localities portfolio to species rich grassland on a once a year cut could sequester an additional 242 tCO2e per year (33% of 125 x 5.87, for conversion rate of improved to pollen and nectar mix from NERR043).
- Converting rural highways verge to cut and collect, estimate of 4 tonnes per hectare would equate to 400 tonnes CO2e per year for 100% conversion. 5% pilot is estimated to have the potential to sequestrate 20 tonnes of CO2e per year.
- Therefore, a total of **642 tCO_2e per annum** would be sequestered**.**

Action 4.2.7 Implement Citizen Science Engagement for Hedgerow Restoration

- One mature oak tree is estimated to be 10.5 tCO_2e. If hedgerow restoration can be encouraged through use of a streamlined assessment and interpretation tool and this nudges to increase the % of hedgerow with oak standards up by just 1% in the borough, this will equate to (approximately) an additional 3,200 tCO_2e captured over the next 70 years.
- 300 extra open growing oak trees (or equivalent are planted by 2025 with a pro rata tCO_2e sequestration rate of **45 tCO_2e per annum.**

Savings this year:

- Alongside hedgerows and grassland management, the 40,242 trees planted since October have contributed towards offsetting at least an estimated 6,036 tCO_2e (40,242*0.15)
- This figure per tree is an estimation as it is impossible to exactly calculate and there are no figures available for this exact situation and an estimate must be made for the figure over time. The closest to our current case (in terms of young trees annually) is that over the first 10 years the young tree would sequester approximately 0.058 tonnes of carbon overall[5]. At the 10 year stage this becomes an average of 0.02kg per year and so over 5 years cumulates to 0.1 tonne sequestered. Therefore over 15 years this would exceed the 0.15 tonnes. However this will vary and is an average across many different species, conditions, tree lifespan etc, as individuals could live longer or shorter depending on the situation.

Waste & Recycling

The figures used here are calculated based on the premise that preventing the loss of recyclable material means less goes to landfill sites and less is produced, removing the emissions from these processes.

While there are still some emissions from the process of recycling the material itself, these are considerably lower and have been accounted for in the calculations as shown below. All figures are reduced to 2 decimal places for simplicity within this document, although more precise numbers were used to calculate totals, which is why there are some marginal discrepancies.

All figures are based on government figures on GHG reporting where available[6], or from strong online secondary data where required, with the references outlined in the appendix. These are generally in line with the WRAP Conversion Factors too, with these being referenced in the government data tables. While the recycling processes themselves may occur outside the borough, it is the decisions and actions of residents within the borough which allow such actions to happen, therefore meaning they fall into our scope. These savings are calculated to show the potential annual savings per year, therefore acting against the overall emissions and eventually contributing towards the net zero goal. Each of these has been done for the current year due to the considerable changes in actions and results from covid meaning these are the most accurate available, along with these not being within the scope anyway so not affecting the 2019 vs 2030 comparisons directly.

Action 6.1 - Achieve 70% recycling target.

[5] https://2ea.co.uk/planting-trees-understanding-its-role-in-carbon-offsetting/#:~:text=Young%20trees%20can%20absorb%20around,around%2021.7kg%20of%20CO2

[6] https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022

- The current rate of recycling is 53% so a 17% increase will be required across all areas.
- Currently the total waste is 65,709, so 70% of this would be 45,996.
- The current recycling tonnage is 34,757.
- So a 17% increase to reach 70% represents an increase of 11,239 tonnes of waste going to recycling rather than landfill.
- 446.20 kgCO2e is emitted from mixed residual waste going to landfill.
- The average emissions from the waste within this being recycled within a closed loop is 21.28 kgCO2e
- 1,622.57 KGCO2e is emitted per tonne of raw material produced (average of others as no official figures available).
- 446.20+1,622.57-21.28 = 2047.49 kgCO2e
- 11,239 x 2047.49 = **23,011.74 tco2e saving per year**

Action 6.1.1 Implement a new waste and recycling collection system with improved facilities.

- Within this wider strategy, one element is to switch waste collections to bi-weekly to reduce costs and emissions.
- This will result in carbon savings of 2,415 tco2e per year, as calculated by the consultant eunomia. This is based on the same WRAP[7] figures used by the government figures we use for the rest of the calculations, so remains a strong estimate.
- This figure is based on the following breakdown, comparing goods being in a closed loop or equivalent compared to going to landfill:

Item	CO2e Saving	Saving per tonne	Tonnage Saving
Dry Recycling	1,750	1.146	1527.05
Residual Waste	888	0.446	1991.03
Organic Recycling	193	0.587	328.79
Contamination	-91		
Transport	-325		
Total	2,415		3846.87

Action 6.1.2 Improve residents' engagement with waste and recycling initiatives via partner Green Redeem

- By renewing garden waste we therefore expect a similar amount of green waste to be collected and recycled.
- Current amount is 11,748.67 tonnes
- 578.94 KgCO_2e is emitted per tonne of garden waste going to landfill.
- 21.28 KgCO_2e is emitted per tonne of garden waste being composted.
- As this is garden waste there is no raw material to substitute for.
- 11,748.67*(578.94-21.28)/1000= 6,551.76 tco2e saving per year

- An average of 825 people engaged per post on social media in the baseline year, which is 330 households (825/2.5 average people per household)
- If this many people were to follow the advice and subsequently increase their recycling amount and quality by 10% it would lead to:
- (0.22) * 0.1 * 330 = 7.31 tco2e saving per year
- 7.31+6,551.76 = A total of **6,559.07 tCO_2e savings per annum**.

[7] Carbon Waste and Resources Metric | WRAP

Action 6.1.3 Target low participation areas to increase food waste tonnage to increase participation above 70%

- Current amount is 6082.18 tonnes
- Based on the % change figures in 7.1 above, if this were to increase by 17% in line with all other recycling, this would increase to 7,116.15 tonnes (6082.18*1.17)
- This is an increase of 1033.97 tonnes
- 626.85 $KgCO_2e$ is emitted per tonne of food waste going to landfill.
- 21.28 $KgCO_2e$ is emitted per tonne of food waste being recycled.
- 680 KGCO2e is emitted per tonne of raw material produced on average in Europe.
- (680+626.85-21.28)*(1033.97/1000) = **1,329.24 tCO_2e savings per annum**.

Action 6.1.4 Increase & improve facilities for glass recycling

- Current amount is 3591.17 tonnes of glass recycled.
- The average UK household uses 500 glass bottles and jars every year[8], which equates to 113kg of glass (8oz per glass bottle)
- Again aiming for 70% of households to recycle all of this (or 70% in total for all households) would mean 5,537 tonnes of glass (113*70,000*0.7)/1000
- 8.93 $KgCO_2e$ is emitted per tonne of glass going to landfill.
- 21.32 $KgCO_2e$ is emitted per tonne of glass being recycled.
- 670 KGCO2e is emitted per tonne of raw material produced.
- (670+8.96-21.32)*(5,537-3591.17)/1000 = **1,279.65 tCO_2e savings per annum**.

Action 6.2.1 – 3% of total waste going to landfill by 2030

Assuming 27% of the remaining waste (after 70% goes to recycling) is used for combustion to produce energy rather than recycling then savings here arise from the prevention of landfill and related emissions and not having to burn fossil fuels.

- The remaining 27% would all be used for combustion
- Remaining amount is 0.27*65709 = 17,741.43 tonnes
- 21.32 $KgCO_2e$ is emitted per tonne from combustion
- 446.2 emitted if going to landfill as residual waste
- Nothing saved from production here.
- 17,741.43 *(446.2-21.32)= **7,537.97 tCO_2e savings per annum**.
- The current tonnage going to EfW is much higher as less is being recycled, as the recycled figure increases less will need to go to the energy.

Savings this year:

- The total tonnage last year was 71,624 and this has fallen to 65,709
- This is a reduction of 5,915 tonnes which has not been produced
- 1,622.57 KGCO2e is emitted per tonne of raw material produced (average of others as no official figures available).
- 1,622.57*5,915/1000= 9,594.13 tCO_2e saving

[8] https://www.recyclingbins.co.uk/recycling-facts/

- In addition there has been 34,757 tonnes of recycling
- 446.20 kgCO2e is emitted from mixed residual waste going to landfill.
- The average emissions from the waste within this being recycled within a closed loop is 21.28 kgCO2e
- 1,622.57 KGCO2e is emitted per tonne of raw material produced (average of others as no official figures available).
- (1,622.57+446.2-21.28)* 34,757/1,000= 71,164.61 tCO_2e saving

- 9,594.13+71,164.61 = 80,758.74 tCO_2e saving
- For the 70,000 households this is 1.15 tCO_2e each

Energy from waste:

- 26480 tonnes of waste going to EfW
- National average of 557kWh/t generated per tonne of waste input in 2020[1]
- This generates 14.75 gWh this year.

New Development

Action 7.6 From 2021, 100% council new development is built to carbon neutral standards

Action 7.6.1 All new council properties will be built to the highest efficiency standards from 2021

It is imperative that both new homes and non-residential in the council must be built to be low-carbon, energy and water efficient and climate resilient. Getting the design of the new homes right from the outset is vastly cheaper than forcing retrofit later. Government projections suggest that from 2025 at the latest, no new homes should be connected to the gas grid. They should instead be heated through low carbon sources, have ultra-high levels of energy efficiency alongside appropriate ventilation and, where possible, be timber-framed. Building new homes to net-zero carbon standards would not generate carbon savings, however, it will prevent any additional emissions.

Engagement and Behavioural Change

This section of the action plan focuses on promoting and accelerating the shift to more sustainable behaviours amongst our residents, businesses, schools and community organisations and 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.

Council Emissions

Action 10.1. Reduce by 70% CO_2 emissions produced by council related travel by 2030

- A staff travel survey carried out in 2020 to WBC staff in 2020 showed that approximately 3,482,615 miles are driven to WBC workplaces annually (pre-covid).
- In addition, Council staff travelled an estimated 896,957 miles for council work this year.
- Therefore, total staff mileage is 4,379,572 per year.
- A 70% reduction in this total would be 3,065,700.4 less miles (4,379,572 x 0.7)
- This would therefore save **892.21 tCO_2e per annum** (3,065,700.4 x0.29103/1000).

Action 10.1.1 - Deliver a strategy to reduce grey fleet miles from work related trips by 30%

- Grey Fleet is a term used to describe the business miles travelled by an employee in their own vehicle. This 'fleet' of employee-owned cars is deemed 'grey' as the vehicles in use are in somewhat of a grey area of responsibility for the employer.
- Council staff travelled 896,957 miles for council work this year.
- 30% of this is 269,087.1 miles (896,957*0.3)
- Therefore this reduction would save **78.31 tCO_2e per annum** (269,087.1 x0.29103/1000).

Action 10.1.2 - Promote homeworking and remote working practices amongst council staff to reduce by 40% the CO2 emissions travelled from council staff to work by 2022.

- A staff travel survey carried out in 2020 to WBC staff in 2020 showed that approximately 3,482,615 miles are driven to WBC workplaces annually (pre-covid)
- These journeys cause the emission of approximately 1,013.54 tCO_2e each year ((3,482,615*0.29103)/1000).
- A 40% reduction of this would therefore represent **405.42 tCO_2e per annum** of savings (1,013.54*0.4)

Action 10.1.3 - Incentivise council staff to mode shift to active and sustainable transport to reduce by 30% the CO2 emissions from staff travelling to work by 2025.

- A 30% reduction would be as above but **304.06 tCO_2e per annum** of savings (1,013.54*0.3).

Action 10.2.1 Council's car fleet becomes entirely ultra-low emission by 2028.

- The council has currently 19 vehicles, of which 16 are owned and 3 are leased, as shown below:

Owned	
Hyundai 1800 2.5 CRDi 5 dr MPV	5000
Ford Connect 210 LWB 1.6 95ps Van	12000
Ford Ranger Pick-Up (54 reg.)	7000
Rodeo Denver Max D/C Pick-Up (2009)	7000
Ranger XL 4x4 TDCI	10000
Landini Agricultural Tractor	7675
Peugeot Expert Professional	7675
EV Van	7675
Ford Tourneo Connect 8-Seat Minibus	2400
Ford Transit Connect Van	7675
Vauxhall Vivaro 9 seat Minibus (2012)	7675
Ford Transit Tourneo 9-Seat Minibus (2009)	7675
Ford Transit 17-Seat Minibus	7675
Ford Tourneo Connect Trend 8-Seat Van	7675
Ford Transit 17-Seat Minibus	7675
Nissan E-NV200 Panel Van (Electric)	7675
Leased	
Vauxhall Vivaro Combi	7675
Ford Transit Connect 1.8	7675

- For vehicles with currently unknown mileage and average of known mileage was used = 7675. Please note the true value may be significantly lower.
- Total annual emissions are therefore **45.39 tCO_2e per annum**, following the GHG Accounting tool emission factors where this is used (this includes energy for the EV's).

Action 10.3 By 2030 All council CCS buildings to be retrofitted to carbon neutral standards

- The council estates / corporate property portfolio (CCS contract) energy usage figures are for electricity 24,862,000 kWh per annum and for gas 30,880,993 kWh per annum as per 2022/23. This data does not include energy figures for schools, as these are been addressed in target 15.
- Using the UK Government GHG Conversion Factors[9], 0.19338 kg CO_2e is emitted for every KWh generated by the current grids composition (including fossil fuels).
- In addition transmission and distribution losses add an additional 0.01769 kg CO_2e emitted for every KWh, making a total of 0.21107 kg CO_2e.
- The figure for gas is almost identical considering the transmission emissions, so this factor is used for both.
- Therefore, based on the below resulting emissions outlined in the table, the total carbon dioxide emissions council estates / corporate property portfolio excluding schools are **11,765.67 tCO_2e per annum (**24,862,000+30,880,993)*(0.21107/1000).

[9] https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022

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Appendix C - Equality Impact Assessment (EqIA) form: Progress Report

If an officer is undertaking a project, policy change or service change, then an initial impact assessment must be completed and attached alongside the Project initiation document.

EqIA Titular information:

Date:	05/05/2023
Service:	Economy and Housing
Project, policy or service EQIA relates to:	The Climate Emergency Action Plan (CEAP) Fourth Progress Report
Completed by:	Andrew Collins
Has the EQIA been discussed at services team meeting:	No
Signed off by:	Rhian Hayes
Sign off date:	27/06/2022

1. **Policy, Project or service information:**

This section should be used to identify the main purpose of the project, policy or service change, the method of delivery, including who key stakeholders are, main beneficiaries and any associated aims.

What is the purpose of the project, policy change or service change , its expected outcomes and how does it relate to your services corporate plan:
This Climate Emergency Action Plan Progress Report outlines progress made on the actions that were approved in July 2020 towards the target to become a net-zero carbon borough by 2030, including updated estimated costs and carbon saving against individual targets, supported by a thorough methodology. The report summarises the Borough's carbon footprint, the plans for the years ahead and identifies the benefits of becoming net-zero carbon, towards delivering as much carbon savings as possible within the borough by 2030. This is being presented by officers on behalf of members and officers will continue to support these key projects, and offer impartial professional advice throughout, regarding the best opportunities and what is achievable, towards the overall goals outlined. A more ambitious approach would be required to enable WBC to play as full a role as possible in achieving the net-zero carbon borough by 2030, as per the declaration and commitment laid out in 2019. This remains a live document and will continue to updated over the coming year as more details become available to support decision making and methodologies for figures.

The Climate Emergency Action Plan Progress Report comprises:

- Summarises the Borough's current carbon profile and the councils performance for the last year.
- Demonstrates the current situation around reaching net zero and how more support is needed.
- Details the benefits of becoming net zero and WBC's scope of influence towards such.
- Outlines related policies released this year which may impact the actions/trajectories.
- Presents updated summaries for each section explaining the purpose and format of the sections targets, along with outlining key achievements, upcoming actions, challenges, and overall carbon savings.
- Contains full details of actions and their associated outcomes, milestones and the latest status update for each, alongside updated anticipated costs and expected carbon savings wherever possible.
- Includes definitions and inventories as appendices to explain the information more clearly for all.
- Involves a separate methodology document to outline carbon savings calculations.

Outline how you are delivering your project, policy change or service change. What governance arrangements are in place, which internal stakeholders (Service managers, Assistant Directors, Members ect) have/will be consulted and informed about the project or changes:

The Wokingham Borough Council Climate Team lead on the implementation and update of the CEAP, with cooperation from multiple departments across the council in delivering the actions. This is coordinated within **monitoring groups** for each team and then a shared **Lead Officer Group** to share progress and best practice. By consulting with these officers, the current progress toward each goal was identified, alongside any new projects within the targets or barriers/delays to existing plans, while the monitoring groups have been set up to work on key priorities to support delivery.

Additional elements have also been added with extra information to provide a greater level of detail, such as the carbon savings and co benefits as suggested by the scrutiny committee, while through thorough research and using official government statistics, the related methodology has been updated to be more accurate and again in greater detail. This **Task and Finish Group** is made up of members to scrutinise the Council's Climate Emergency Action Plan, emerging targets and key performance indicators underpinning the Action Plan. On an ongoing basis they are assessing the level of carbon reduction to be delivered by the Action Plan in light of the Council's 2030 target and produce a report to the Overview and Scrutiny Management Committee and the Executive each year, with guidance for improvement relating to the Action Plan.

This specific **Overview and Scrutiny Management Committee** is set up to meet approximately every 3 months to receive major updates on the CEAP and its key actions, to analyse them from a neutral external perspective and provides recommendations for potential improvements, which the council will consider and implement where viable and supportive of the objective.

To support the project there is also a **Climate Emergency Advisory Group,** made up of representatives from industry, academia and charities who meet quarterly to explore what new ideas and cutting edge technology can bring to reducing carbon dioxide emissions in the borough. The board acts as a 'critical friend', to provide a level of scrutiny and understanding that balances the needs of the response against the cost, effort and regulatory processes.

Finally, a **Climate Emergency Investment Board** has been established to assess each action in the CEAP in terms of carbon saved, income generated and costs to decide which actions will be invested in by the council. This annual Climate Emergency Progress report will be public and includes updated estimated costs and carbon saving against individual targets where possible, to demonstrate to all stakeholders the benefits of reaching net zero.

Outline who are the main beneficiaries of the Project, policy change or service change?
The main beneficiaries of the project are all of the residents and businesses of Wokingham Borough. By delivering this progress report it demonstrates to residents our commitment to follow up on declaring a climate emergency and achieve the included targets, while improving our transparency in detailing how we realistically plan to do so. Moreover, the analysis process within this progress report identifies any potential areas of weakness which need to be addressed, meaning they can be acted upon and increase the likelihood of achieving the net zero target which will result in positive environmental changes that will improve the quality of life of all our residents and help to avoid the impacts of climate change. Within this there are opportunities for specific positive impacts to stakeholders in a number of areas, for example building retrofitting will reduce energy costs for residents, businesses and the council, in particular socio-economically disadvantaged homeowners.

Outline any associated aims attached to the project, policy change or service change:
The progress report is designed to communicate the current progress toward each target, alongside any new projects within the targets or barriers/delays to existing plans, demonstrating to residents our commitment to follow up on declaring a climate emergency and achieving the included targets, while improving our transparency in detailing how we realistically plan to do so. The overall aims of the project remain the same though: **The Council's Key Priorities for Reducing Carbon Dioxide Emissions to Net Zero by 2030** The analysis above has helped the council to identify ten key priority areas (below) to focus on for reducing carbon dioxide emissions. The action plan, which has been populated with ideas from local residents, Town and Parish councils, council officers, and local businesses, is not exclusively limited to these areas.

1. Reduce Carbon Dioxide Emissions from Transport

The council will seek to reduce carbon dioxide emissions from transport by using technology to help improve traffic flows, reducing congestion by optimising the use of the existing road network and increasing the number of EV charging points across the borough. The council aims to encourage residents to take up more sustainable transport options such as walking, cycling, and bus and train travel.

2. Generate more Renewable Energy

The council plans to develop five largescale solar PV farms throughout the Borough over the next five years. This will not only increase the production of renewable energy, but has the potential to generate an income, which will then be reinvested into delivering other carbon reduction projects.

3. Reduce Carbon Dioxide Emissions from Domestic and Commercial Property

There are around 70,000 dwellings in the Borough, of which an estimated 85% use fossil-fuel based natural gas. The council aims to convert these towards low-carbon forms of energy and retrofit homes to be more efficient and sustainable. The council will implement the necessary measures to improve the current energy usage of its own corporate properties and aims to become net zero carbon by 2030.

4. Increase the Levels of Carbon Sequestration the Borough Through Greening the Environment

The council will plant 250,000 new trees over the next five years. As well as increasing the capacity for carbon offsetting, afforestation will allow for a biodiversity net gain, an approach to development that increases levels of biodiversity at a greater rate.

5. Engage with Young People and Support Sustainable Schools

The council will launch a sustainable schools programme. The programme aims to promote behavioural change amongst young people by engaging with schools to work with children to encourage the adoption of new 'climate-friendly' behaviours that will influence their families and communities.

6. Reduce Waste and Increase Recycling

The council aims to achieve zero waste to landfill and 70% recycling by 2030. This will be achieved through encouraging people in the borough to change their behaviour, such as the introduction of food waste collection which has been a great success borough-wide. There remains great scope for future improvement with opportunities available regarding glass recycling and increasing the range of plastics that can be recycled.

7. Create a Local Plan that Specifies Net Zero Construction and Infrastructure

All major residential and commercial developments will be expected to deliver high sustainable construction standards. Policies to enable this will be embedded in the upcoming Local Plan Update (LPU). Major developments will embrace innovative sustainable design solutions for energy efficiency and low carbon energy generation and use.

8. Achieve sustainable procurement practices

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.

9. Encouraging Behaviour Change

As a community leader, the council will set an example and set high standards in becoming net zero carbon. This includes its own estate but also its policies, service delivery and investment decisions. The Council will communicate and engage with all of its residents, businesses, schools, Town and Parish Councils, charities, the University of Reading, Thames Valley Berkshire Local Enterprise Partnership, the Greater South East Energy Hub and other local authorities to work together to initiate education programmes and encourage behaviour change

10. Lead by example and Reducing Council Emissions specifically

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.

2. Protected characteristics:

There are 9 protected characteristics as defined by the legislation:

- Race
- Gender
- Disability
- Gender re-assignment
- Age
- Religious belief
- Sexual orientation
- Pregnancy/Maternity
- Marriage and civil partnership:

To find out more about the protected groups, please consult the EQIA guidance.

3. Initial Impact review:

In the table below, please indicate whether your project, Policy change or service change will have a positive or negative impact on one of the protected characteristics. To assess the level of impact, please assign each group a *Positive, No, Low or High* impact score:

For information on how to define No, low or high impact, please consult the EQIA guidance document.

If your project is to have a positive impact on one of the protected groups, please outline this in the table below.

For details on what constitutes a positive impact, please consult the EQIA guidance.

Protected characteristics	**Impact score**	**Please detail what impact will be felt by the protected group:**
Race:	No/Neutral	All of the residents and businesses of Wokingham Borough will be equally and positively impacted by delivering this progress report as it demonstrates to residents our commitment to follow up on declaring a climate emergency and achieve the included targets, while improving our transparency in detailing how we realistically plan to do so. Moreover, the analysis process within this progress report identifies any potential areas of weakness which need to be addressed, meaning they can be acted upon and increase the likelihood of achieving the net zero target which will result in positive environmental changes that will improve the quality of life of all our residents and help to avoid the impacts of climate change.
Gender:	No/Neutral	All of the residents and businesses of Wokingham Borough will be equally and positively impacted by delivering this progress report as it demonstrates to residents our commitment to follow up on declaring a climate emergency and achieve the included targets, while improving our transparency in detailing how we realistically plan to do so. Moreover, the analysis process within this progress report identifies any potential areas of weakness which need to be addressed, meaning they can be acted upon and increase the likelihood of achieving the net zero target which will result in positive environmental changes that will improve the quality of life of all our residents and help to avoid the impacts of climate change.
Disabilities:	No/Neutral	All of the residents and businesses of Wokingham Borough will be equally and positively impacted by delivering this progress report as it demonstrates to residents our commitment to follow up on declaring a climate emergency and achieve the included targets, while improving our transparency in detailing how we realistically plan to do so. Moreover, the analysis process within this progress report identifies any potential areas of weakness which need to be addressed, meaning they can be acted upon and increase the likelihood of achieving the net zero target which will result in positive environmental changes that will improve the quality of life of all our residents and help to avoid the impacts of climate change.
Age:	No/Neutral	All of the residents and businesses of Wokingham Borough will be equally and positively impacted by delivering this progress report as it demonstrates to residents our commitment to follow up on declaring a climate emergency and achieve the included targets, while improving our transparency in detailing how we realistically plan to do so. Moreover, the analysis process within this progress report identifies any potential areas of weakness which need to be addressed, meaning they can be acted upon and increase the likelihood of achieving the net zero target which will result in positive environmental changes that will improve the quality of life of all our residents and help to avoid the impacts of climate change.
Sexual orientation:	No/Neutral	All of the residents and businesses of Wokingham Borough will be equally and positively impacted by delivering this progress report as it demonstrates to residents our commitment to follow up on declaring a climate emergency and achieve the

		included targets, while improving our transparency in detailing how we realistically plan to do so. Moreover, the analysis process within this progress report identifies any potential areas of weakness which need to be addressed, meaning they can be acted upon and increase the likelihood of achieving the net zero target which will result in positive environmental changes that will improve the quality of life of all our residents and help to avoid the impacts of climate change.
Religion/belief:	No/Neutral	All of the residents and businesses of Wokingham Borough will be equally and positively impacted by delivering this progress report as it demonstrates to residents our commitment to follow up on declaring a climate emergency and achieve the included targets, while improving our transparency in detailing how we realistically plan to do so. Moreover, the analysis process within this progress report identifies any potential areas of weakness which need to be addressed, meaning they can be acted upon and increase the likelihood of achieving the net zero target which will result in positive environmental changes that will improve the quality of life of all our residents and help to avoid the impacts of climate change.
Gender re-assignment:	No/Neutral	All of the residents and businesses of Wokingham Borough will be equally and positively impacted by delivering this progress report as it demonstrates to residents our commitment to follow up on declaring a climate emergency and achieve the included targets, while improving our transparency in detailing how we realistically plan to do so. Moreover, the analysis process within this progress report identifies any potential areas of weakness which need to be addressed, meaning they can be acted upon and increase the likelihood of achieving the net zero target which will result in positive environmental changes that will improve the quality of life of all our residents and help to avoid the impacts of climate change.
Pregnancy and Maternity:	No/Neutral	All of the residents and businesses of Wokingham Borough will be equally and positively impacted by delivering this progress report as it demonstrates to residents our commitment to follow up on declaring a climate emergency and achieve the included targets, while improving our transparency in detailing how we realistically plan to do so. Moreover, the analysis process within this progress report identifies any potential areas of weakness which need to be addressed, meaning they can be acted upon and increase the likelihood of achieving the net zero target which will result in positive environmental changes that will improve the quality of life of all our residents and help to avoid the impacts of climate change.
Marriage and civil partnership:	No/Neutral	All of the residents and businesses of Wokingham Borough will be equally and positively impacted by delivering this progress report as it demonstrates to residents our commitment to follow up on declaring a climate emergency and achieve the included targets, while improving our transparency in detailing how we realistically plan to do so. Moreover, the analysis process within this progress report identifies any potential areas of weakness which need to be addressed, meaning they can be acted upon and increase the likelihood of achieving the net zero target which will result in positive environmental changes that will improve the quality of life of all our residents and help to avoid the impacts of climate change.

Based on your findings from your initial impact assessment, you must complete a full impact assessment for any groups you have identified as having a low of high negative impact. If No impact, or a positive impact has been identified, you do not need to complete a full assessment. However, you must report on this initial assessment and it must receive formal approval from the Assistant Director responsible for the project, policy or service change.

Initial impact assessment approved by: Rhian Hayes Date: 09/08/2022

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