Test Valley Borough Council

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Climate Emergency Action Plan

2024 - 2027



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Glossary

Term	Definition
Borough Wide Emissions	The greenhouse gas emissions occurring within the borough of Test Valley.
Climate Change	Climate change refers to long-term shifts in temperatures and weather patterns.
Carbon Sequestration	The process of capturing and storing atmospheric carbon dioxide.
Council Emissions	Greenhouse gas emissions from the council's assets and operations.
Co-benefits	The positive effects that a policy or measure aimed at one objective might have on other objectives.
Energy Hierarchy	A reduction in demand for energy (including for heating, cooling and lighting) is prioritised; followed by ensuring that energy is used and supplied efficiently; then looking at renewable and low carbon energy sources to meet the resultant energy needs
Intergovernmental Panel on Climate Change (IPCC)	An intergovernmental body of the United Nations for assessing the science related to climate change. This includes consideration of impacts and risks, and options for adaptation and mitigation.
Scope 1 Emissions	Direct greenhouse gas emissions from activities we own or control that release into the atmosphere e.g. combustion from boilers and vehicles owned by the organisation.
Scope 2 Emissions	Indirect energy greenhouse gas emissions, related to the use of purchased electricity, heat, steam and cooling that are a consequence of our activities, but which occur at sources we do not control.
Scope 3 Emissions	Other indirect emissions, relating to emissions as a consequence of actions which occur at sources we do not control / own and fall outside Scope 2 (e.g. combustion from vehicles not owned by the organisation and the emissions associated with products purchased).



Foreword

Now, more than ever before, we understand the consequences of climate change and the need to take action to prevent them.

As a response to the ongoing challenges of the climate emergency, we have refreshed the 2020 Climate Emergency Action Plan (CEAP). Since 2020, we have made great progress in reducing our emissions, including transitioning from diesel to HVO (hydrotreated vegetable oil) fuel amongst our fleet vehicles. We have also reduced emissions by decarbonising council assets and have been working with communities and businesses to reduce borough wide emissions. We recognise that our communities play a leading role in emissions reduction. We do however realise that more needs to be done to ensure this progress continues.

To achieve this, the CEAP outlines a comprehensive set of actions, designed to drive forward carbon reduction activity. As far as possible, the actions are quantifiable to enable us to specifically measure the impact of the reduction of greenhouse gases over the next three years. This timeline fits with the lifespan of the Corporate Plan, 2024-2027. The actions outlined within this document will continue to be refined and developed as we respond to the climate emergency.



Councillor Alison Johnston Climate Emergency and Countryside Portfolio Holder

Executive Summary

This Climate Emergency Action Plan for Test Valley Borough Council sets out a framework for collective actions on climate change to achieve an ambitious reduction in greenhouse gas emissions. In doing so it aims to reduce the council's greenhouse emissions and to stimulate and deliver the support required to reduce emissions within the borough reflecting our community leadership role. This will enable the transition to a low carbon and cost effective lifestyle, which will be financially beneficial compared to not taking appropriate action. The action plan outlines why the CEAP is required; how it fits within our commitment to reduce greenhouse emissions and become more resilient to climate change; and how we intend to move forward with this. The report identifies actions that have been set for the next three years in line with the Corporate Plan. The Corporate Plan champions

the importance of sustainability and the environment within our future policies and that we will be taking positive action to become carbon neutral as soon as possible focusing on our assets and what we can do within our communities.

We have outlined our role in reducing emissions and the opportunities and risks associated with this. A greenhouse gas reporting section outlines the council's emissions and borough emissions. Case studies of some of our successes in the transition towards carbon neutrality are also provided. The report is concluded with a section highlighting how we intend to monitor and report on the CEAP over the next three years. A progress report will be provided each year to update on the delivery of the plan and outline where new opportunities have arisen with the year to further reduce greenhouse gas emissions.





1. Introduction

- **1.1** We have been taking action on climate change for many years, through our sustainability strategies and frameworks, carbon reduction plans and other council strategies and service delivery. Our Corporate Plan continues to highlight the environment as one of our strategic priorities, with specific recognition of the role we play as community leaders, including supporting our communities to adapt to the challenges presented by climate change.
- In 2018, a special report by the 1.2 Intergovernmental Panel on Climate Change (IPCC) warned that urgent action was needed to cut greenhouse gas emissions and limit global warming to 1.5°C, to avoid the most catastrophic impacts of climate change. Extreme weather events are also becoming more frequent, severe, and longer in duration. Following this, in 2019, the council declared a climate emergency and delivered the original Climate Emergency Action Plan in 2020, which we have since been implementing.
- **1.3** The actions section of this plan reflects the anticipated significance of the impact e.g. low, medium, high. The three tables outline actions that are directly influenced by the council and likely to affect our own emissions, actions that are more likely to influence borough wide emissions, and those that can be influenced by the council, but that the council have no direct control over and therefore cannot be measured.

2. WHY IS IT IMPORTANT?



In November 2008, the Climate Change Act 2008 was passed to recognise the importance of reducing greenhouse gas emissions as a response to climate change. The Act (as amended) now sets a target for the UK to become net zero by 2050 by reducing all greenhouse gases by at least 100% based on the 1990 baseline. In 2015, 191 countries formally approved the Paris Agreement, targeting net zero by 2050, and committing them to limit global warming to well below 2°C, and preferably to 1.5°C, compared to pre-industrial levels. In 2015, world leaders agreed to 17 global goals. They were designed to be a "blueprint to achieve a better and more sustainable future for all" and part of the United Nations 2030 Agenda for Sustainable Development. Each of the 17 goals strive for the universal reduction of climate change and poverty, and the improvement of education, health, and economic growth. United Nations describes the goals as seeking to "protect the planet, and improve the lives and prospects of everyone, everywhere." In August 2021, the IPCC confirmed that without immediate, rapid, and large-scale reductions in emissions, limiting warming to 1.5°C or even 2°C will be beyond reach.

Why we need to act?

- 2.1 The levels of greenhouse gases in our atmosphere are higher than at any point in the last 120,000 years and this increase is directly linked to human activity, mainly the burning of fossil fuels.
- **2.2** Excessive CO₂ emissions This increase in CO₂ emissions levels is leading to increasing temperatures, with the Met Office stating that 2023 was the warmest year stretching back to 1850, making it the 10th year in succession to exceed 1°C above the pre-industrial period.
- 2.3 Extremely hot summers the South East of England has seen some of the most significant changes to warming weather conditions, with warm spells increasing from around 6 days in length (during 1961-90) to over 18 days per year on average during 2008-2017. A study by the Met Office Hadley Centre suggests the current chance of seeing days reaching 40°C or more is extremely low. However, by 2100 under a high emissions scenario the UK could see 40°C days every 3-4 years.
- 2.4 Examples are provided by the Met Office outlining rising temperature and extreme weather warning from 2020 -2023:



Temperatures exceeded 34°C across parts of the south-east for six consecutive days and several tropical nights with overnight temperatures remaining above 20°C.



Extreme temperatures in March reaching 24°C which is the hottest March on record.



Heat wave July 2022 - This heatwave marked a milestone in UK climate history, with 40°C being recorded for the first time in the UK.



September 2023 - 7 consecutive days of heatwave reaching highs of 32°C in southern England.



- 2.5 Extreme weather The Met Office also state that the UK is expected to experience wetter winters and drier summers. However, rain that does fall in summer will likely be more intense than what we currently experience. For example, rainfall from an event that typically occurs once every 2 years in summer is expected to increase by around 25%. This will impact on the frequency and severity of surface water flooding, particularly in urban areas.
- 2.6 Test Valley is experiencing the impacts of climate change including increased flooding and storm intensities. There have been multiple winter storms that have caused damage and disruption, including loss of power for days in some communities. There was significant flooding in a number of communities in Test Valley in 2014, with more recent flooding events in some communities, including during 2023/24 which experienced some of the wettest months on record (since 1871) and when groundwater levels were amongst the highest on record in the local area.
- 2.7 There are less obvious impacts such as increased risk to the health of vulnerable people as a result of hotter summers, and a greater risk of invasive species on the borough's precious habitats. Also, a number of studies have highlighted the financial benefits of taking action now and the significant costs of delaying action. The actions outlined within this CEAP aim to work towards adaptation and resilience to try and reduce future vulnerability to such impacts.
- **2.8** There are many associated economic, social and health benefits to taking action on climate change, strengthening the case for climate action. Some of these are illustrated on the next page.



Prosperity - Greener businesses, opportunities for growth in new sectors and enhance green skills and education.



Health and wellbeing – creating greener and healthier places to live, with cleaner air, encouraging greater activity levels, and increasing resilience to future climate impacts.



Efficient and cleaner transport network – active travel, public and community transport and electric vehicle (EV) infrastructure.



Opportunities to lower bills by using less energy and water delivering lasting benefits for our communities.





Environment – a greener borough for communities and supporting biodiversity and the enhancement of the natural environment, for example the impact of our tree planting is outlined in section 5 and more information is in our Green Space Strategy.



Connections – building upon the identity, strengths, and ambitions of our community.



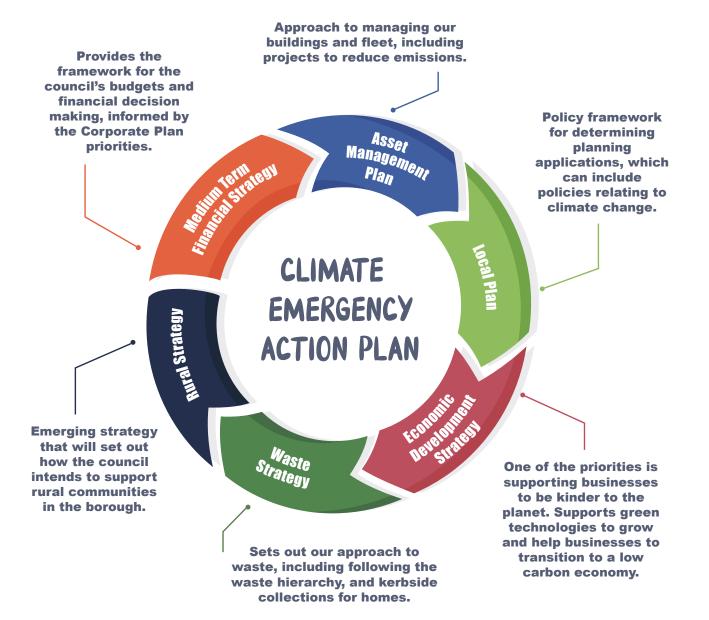
Inclusion - A safer, healthier, more resilient place to work together to create opportunities for communities.



More energy efficient homes – being better able to cope with warmer and cooler periods, and reducing fuel poverty.

2.9 Through the preparation and implementation of the Corporate Plan, we have taken a place-based approach including using community based workshops. This helps our understanding of the challenges and opportunities for specific communities in the borough and how we can support them to address local priorities, which often include matters linked to the identified cobenefits. There are multiple council strategies and policies that support the co-benefits and integrate the consideration of the climate emergency into council's policies. The interconnections and influence of some of these policies with the CEAP are outlined in figure 1.

Figure 1 – Examples of how the Climate Emergency Action Plan interconnects with some council policies and strategies.



3. Achievements so far towards reaching carbon neutrality

3.1 We have made progress in delivering the actions outlined in the 2020 CEAP. Some of the actions that we have completed in the past 4 years include completing the review of the potential for renewable and low carbon energy sources within the borough, moving from diesel to Hydrotreated Vegetable Oil (HVO) and electric vehicles (EVs) amongst out fleet assets, and planting over 33,000 trees. We have outlined more information below as case studies.

Case Study 1: Reducing emissions of the council's fleet vehicles

3.2 In April 2023, we move from diesel to HVO fuel across our fleet vehicles as a transition step on the journey to carbon neutrality. HVO is a drop in diesel alternative that benefits from an instant reduction in carbon dioxide emissions without the need for changes to engine infrastructure



or machinery. It is made from 100% renewable raw materials, is biodegradable and odourless. This change results in about a 95% drop in emissions within our scope 1 emissions for fuel use by the fleet vehicles. As part of the procurement specification for future fleet vehicles, we ensure that relevant vehicles are compatible with HVO fuel.

3.3 Although the HVO fuel has resulted in such a significant drop, we are always continuing to strive for better performance. There are 15 electric vehicles within the council's fleet, along with electric plant and tools, with actions within this action plan to continue to improve the council EV charging infrastructure.

- **3.4** Whole life analysis has been undertaken to consider alternative fuel option types. This also includes what is required to improve the EV infrastructure as new fleet vehicles are procured.
- **3.5** Driver training has also been delivered and there are regular reviews of rounds to analyse where routes can be made more efficient in order to reduce the distance that each vehicle undertakes.
- **3.6** Overall, this transition is a significant step towards the ambition of becoming carbon neutral.



Case Study 2: Bourne House

- **3.7** Bourne House Depot in Romsey is the base for our Environmental Services in the south of the borough. In March 2024, a retrofit was completed to contribute to lower carbon emissions at this site.
- **3.8** As part of this process, the boiler was replaced with an air source heat pump in the office area, solar panels have been installed and insulation was improved within the walls and loft space.
- **3.9** The decarbonisation project at Bourne House was funded through a grant of about £95,000 from the Department for Energy Security and Net Zero (DESNZ) as part of its Public

Sector Decarbonisation Scheme, and alongside about £87,000 of our own funds. This was supported by Salix following the opportunity being identified through an energy audit. Additional energy audits were undertaken that have informed the identification of actions in this document. For example, the actions seek to help decarbonise other council assets including Walworth Enterprise Centre and Portway Depot.

Case Study 3: Tree planting

- **3.10** In 2021, the council set a target to plant 30,000 trees over three years with dual goals of supporting our natural environment and playing a role in storing carbon. Over three winter planting seasons, just over 33,300 trees have been planted.
- **3.11** This has included planting at Anton Lakes, Harewood Common and East Anton in Andover, Bury Hill in Upper Clatford, Valley Park woodlands, and Ganger Farm in Romsey. Through the Hampshire Dormice Project, trees were also planted at Finkley Down Farm.
- **3.12** Local communities were involved in this, with support from volunteers and work with organisations including Andover Trees United at Bury Hill.

Case Study 4: Grants and Support

3.13 The council has a number of grants available for different purposes. In recent years we have reviewed some of these grants and launched new grants, available to businesses and community groups, to help encourage decarbonisation within the borough. Community grants include Councillor Community Grant, Community Asset Fund and Community Rural England Prosperity Fund. Business grants include Rural Net Zero Support grant and Rural England Prosperity Fund.

Businesses

3.14 Test Valley Borough Council is committed to supporting businesses. This includes helping to support our businesses to meet the net zero challenge and to aid their transition to a low carbon world. We will do this to ensure businesses are resilient to change, be that the direct consequences of climate change or through future regulation. We will help businesses to be able to meet future consumer needs and we need to provide the environment for them to learn from each other and to innovate.

- **3.15** Therefore, funded as part of the UK Shared Prosperity Fund, we have partnered with IncuHive to deliver the Test Valley Rural Net Zero Business Service. This comprises:
 - A Test Valley Rural Net Zero Business Advice Service to assist businesses on their net zero journey. Businesses may all be at different stages of their net zero journey and so the support and advice is specific to each business.
 - A small capital grants programme to support businesses making those steps.
 - A pilot demonstrator / support programme focussing on land management and regenerative farming.

Communities

3.16 The council has a number of community grants available, including the Community Asset Fund and Councillor Community Grant Scheme. We clarified that they can be used to support environmental and climate change related projects, including to reduce carbon emissions. We have also altered the process for evaluating applications for the Community Asset Fund, to ask about the environmental sustainability implications of projects for which funding is sought.

- **3.17** In the last couple of years a range of projects have been funded through our community grants that will support carbon reduction efforts, along with providing other benefits. This includes improving the insulation of community buildings, supporting greener energy systems and community initiatives linked to climate change.
- **3.18** The council has also used the UK Shared Prosperity Fund to support a two-year community energy project in Test Valley. Through working with Community Energy South, support is being provided to communities and residents to help explore ways to reduce energy use and consider opportunities for renewable energy.

Homes

3.19 As part of a wider consortium of local authorities, the council is promoting the availability of the Warmer Homes Scheme. This offers grants for eligible properties to improve their energy efficiency, helping to save on energy bills and reduce greenhouse gas emissions.

4. Our role and what can we achieve

- **4.1** The CEAP was prepared with input from the cross party climate emergency working group. This group was established to guide the structure and content of the CEAP, particularly in relation to informing which actions should be progressed and focused on for the next three years. The input from this group has helped shape our approach with the scope of the climate emergency being broad with many interconnecting, overlapping and influencing areas.
- **4.2** Everyone has a role to play in working towards reducing greenhouse gas emissions and increasing resilience to the impacts of climate change. This includes local authorities, which is reflected in our Corporate Plan. There are different ways we can play our role, which include:
 - Areas we directly control, such as our own energy use for running our buildings and operating our fleet of vehicles;
 - Matters we can influence through our contracts and funding;

- Our influence through policy activity, such as the strategies we produce and implement;
- Engaging with our employees;
- Through our community leadership role including providing guidance, support, and funding, such as our community grants, as well as sharing best practice; and
- Through our work with partners and taking a collaborative approach to deliver or support other policies and projects.
- 4.3 The Climate Change Committee estimated that local authorities are directly responsible for about 2-5% of local emissions in the UK, with around a third of UK emissions associated with sectors that are shaped or influenced by local authority practice, policy, or partnerships. There are some areas where we have more influence, for example in setting local planning policies; with other areas where we would need to work with partners, such as Hampshire County Council as the highway authority; or dependent on national policy or legislation. We have sought to reflect on this in our approach to identifying actions. In doing this, we aim to

stimulate and proactively support the delivery of the CEAP actions relating to area outside of our direct control.

Partnerships

- **4.4** The council is involved in many schemes regarding the conservation and enhancement of healthy natural environments. These are critically important to achieving carbon neutrality. The approach the council will take on the natural environment will be informed by the forthcoming Hampshire Local Nature Recovery Strategy (LNRS). We are also working with other partners, some of which have been outlined below:
 - Hampshire County Council on the Local Transport Plan and Local Cycling and Walking Infrastructure Plans which looks at encouraging more sustainable travel. We are also engaging with them on the delivering on-street electric vehicle charging infrastructure through the governmentfunded Local Electric Vehicle Infrastructure (LEVI) scheme.
 - We are working with external partners such as Community Energy South to deliver a community energy project

which looks at providing support to local energy schemes on delivering renewable energy such as solar panels.

Levels of influence

- **4.5** We have reflected on the influence that the council have in working towards carbon neutrality being different when focusing on our own actions, relative to working with others. This has shaped how we have presented our approach and is explained below:
 - Council Emissions: Firstly, we aim to focus on our own council assets, where we have greatest influence, then we can share our experiences as an example of how it can be done. The aim is to promote to others to see how they can also reduce their emissions.
 - Borough and Beyond Emissions: This relates to the impact that we have on wider emissions. We are able to indirectly impact emissions by ensuring that our policies and service delivery have carbon emissions reduction and adaptation to climate change

embedded within them. This will enable us to support more sustainable communities and enable us to have a level of input on the reduction of these emissions. It also allows us to influence the emissions of those who work on our behalf and supply goods and services to us.

- Engagement, Education and Awareness: As well as directly controlling and influencing emissions, we are also able work with partners and our communities to educate and support others to help them become more resilient and adapt to climate change. This includes raising awareness, signposting opportunities, and sharing learning and best practice.
- **4.6** The three tiers of influence have helped to develop our actions and they are split according to the relevant level of influence. The first table of actions outline those related to our emissions, the second table outlines actions relating to area wide emissions reduction and the third outlines emissions where we seek to work with external partners and

communities to help them adapt and become resilient to the future climate.

4.7 By setting these specific actions and intentions for delivery in line with the Corporate Plan timescales, it allows the council to focus its time and resources on those actions which will make the biggest impact on carbon emissions over this time period and starting to investigate our next steps for beyond this period.

Risks

- **4.8** More work is needed to know which are the best practical measures to be introduced once all factors have been considered. It is also important to understand that there may be areas where emissions may not be measurable and where they may rise.
- **4.9** We will be unable to measure the impact of carbon emissions reduction for actions relating to education and awareness. Additionally, some actions for council and borough emissions may not be straight forward to quantify at this stage, as we further investigate the approach we have taken for example. This can influence our assessment of how best to prioritise where to focus our efforts.

- **4.10** There will be challenges moving forward where emissions will potentially increase resulting from future decisions over services delivered. For example, the intention to provide additional kerbside waste collection services and serving additional homes over time, are likely to result in longer rounds which will potentially increase the council's carbon emissions (as already seen in Table 1). The availability of additional recycling opportunities may reduce emissions at a borough and beyond scale. Other factors that may cause carbon emissions to rise include if we make decisions to grow our assets, for example through additional community halls, sports pavilions, or other buildings. In these situations we will seek to review the opportunities and risks, accounting for co-benefits, and try to ensure opportunities are taken to keep any emissions increases as low as we can.
- **4.11** We are also dependent on others for the delivery of some of the identified actions. This is particularly relevant for those areas that we have less control over, such as those dependent on national legislation, policy and funding, or work with other partners and stakeholders.

Test Valley objectives

- **4.12** We aim to work in partnership with organisations and everyone who lives and works in Test Valley to tackle the climate emergency and become carbon neutral as soon as possible. We have outlined our objectives below:
 - Work towards being a carbon neutral organisation as soon as possible.
 - Playing our part in reducing emissions across the borough to help work towards national goals of achieving net zero by 2050.
 - Planning appropriately for the long term, including adaption and resilience to climate change.
- **4.13** In working towards our objectives, we will take an evidence-based, inclusive, and equitable approach and the way we engage with our communities is central to the way we work.

- **4.14** We have been holding 'thriving communities' workshops across Test Valley in order to gather an understanding of the key issues facing communities and what communities need from us. This place based approach is also relevant to action on the climate emergency. It enables us to provide a tailored approach to each community as we understand what their varying needs are.
- **4.15** This is integral to our vision as we are able to respond and adapt to new challenges quickly by putting the community at the heart of our future direction and deliver the best outcomes and quality of life across Test Valley.

Figure 2: Energy hierarchy

Using less energy Supply and use energy efficiently Use renewable and low carbon energy

Offset

Approach to reaching net zero

- **4.16** The energy hierarchy advocates an approach where the reduction in demand for energy (including for heating, cooling, and lighting) is prioritised; followed by ensuring that energy is used and supplied efficiently; then looking at renewable and low carbon energy sources to meet the resultant energy needs. We will have regard to this hierarchy in our approach to working towards carbon neutrality.
- **4.17** The government sets carbon budgets as a mechanism to work towards the national target of being net zero by 2050. They each cover a five year period. The UK's sixth carbon budget was published in 2021, covering the period 2033-2037. This indicates that nationally, emissions would need to have reduced by 78% in 2035 compared to 1990 levels. The national government sets a strategy on how this is to be achieved. We all have a role in helping to meet the carbon budgets, as well as looking at any additional local opportunities that may help towards this bigger picture.

5. Greenhouse Gas Emissions

Council Emissions

- **5.1** In order to understand our progress in reducing emissions, we have calculated our current greenhouse gas (GHG) emissions and have reported on them every year since 2018/19. In reporting such emissions, international standards divide emissions into the following scopes:
 - Scope 1 direct GHG emissions from activities owned or controlled by your organisation that release into the atmosphere e.g. combustion from boilers and vehicles owned by the organisation.
 - Scope 2 indirect energy GHG emissions, related to the use of purchased electricity, heat, steam and cooling that are a consequence of your activities, but which occur at sources you do not control.
 - Scope 3 indirect other emissions, relating to emissions as a consequence of your actions which occur at sources you do not control / own and fall outside Scope 2

(e.g. combustion from vehicles not owned by the organisation and the emissions associated with products purchased).

- 5.2 It is currently not possible to report on Scope 3 emissions due to the availability of appropriate data. Although we do not report on these emissions, we are mindful to explore options to reduce them where we can.
- 5.3 We provided a yearly summary of our gross greenhouse gas emissions which cover the period from 1st April to 31st March. The current reporting reflects greenhouse gas emissions from some of our own buildings, as well as all our fleet and plant (within scopes 1 and 2). The table below summarises our emissions from 2018/19 to 2022/23.

Table 1: Test Valley Borough Council's annual GHG emissions summary

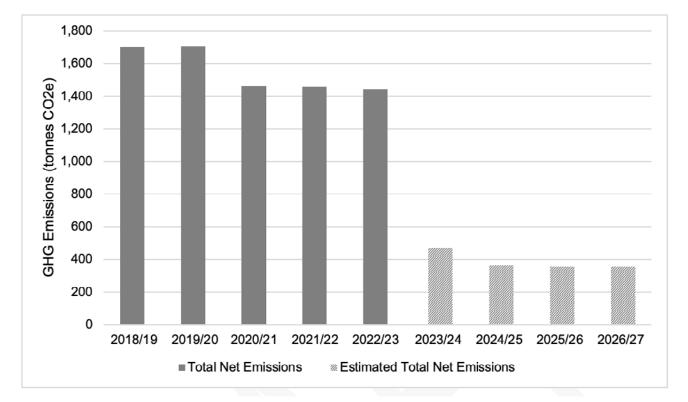
	2022 / 23 tCO ₂ e	2021 / 22 tCO ₂ e	2020 / 21 tCO ₂ e	2019 / 20 tCO ₂ e	2018 /19 tCO ₂ e
Scope 1	1,403	1,431	1,342	1,326	1,276
Fleet fuel use	1,077	1,087	1,078	1,053	1,010
Small machinery	13	15	12	14	15
Gas use	313	329	251	260	251
Scope 2 Electricity use	234	248	273	385	434
Total gross emissions	1,638	1,679	1,615	1,712	1,710
Deductions in Emissions (see paragraph 5.4)	193	222	153	7	8
Total net emissions	1,444	1,457	1,462	1,705	1,702

5.4 The total gross greenhouse gas emissions decreased by 4.2% for this period. To get to the net emissions, we account for the purchase of electricity from a REGO¹ backed electricity tariff and the portion of our solar photovoltaic (PV) generation that is exported back to the grid. Accounting for this, the net reported emissions decreased by about 15% between 2018/19 and 2022/23.

Net Emissions Trajectory

5.5 Taking account of proposed actions over the life of this document, an emissions trajectory has been provided in the graph looking forward to 2026/27. Figure 3 outlines the greenhouse gas data that we have collected and reported on for 2018/19 to 2022/23, and the projection of our future emissions accounting for the estimated impact of actions that will be carried out over the life of the CEAP.

Figure 3: Net greenhouse gas emissions trajectory



5.6 The drop from 2022/23 outlined in figure 3 is as a result of transitioning from diesel to HVO fuel in our fleet vehicles. The council moved to HVO fuel in April 2023. The result of moving to this alternative fuel is the biggest contributor to our emissions reduction since 2020. In addition, we have undertaken a decarbonisation project at our Bourne House depot in Romsey. The project finished in March

2024 and the effects have therefore been recorded from 2024/25. More detail on these projects is provided in section 3.

5.7 The trajectory in figure 3 is the minimum and may change as we investigate and take opportunities to reduce emissions in future years and as more data becomes available on expected emissions reductions.

¹ Renewable Energy Guarantees of Origin. More detail available from <u>OFGEM</u>.

Carbon Sequestration

- **5.8** One of the council's aims was to plant 30,000 trees by March 2023. Through land acquisition and planting on our existing land we've managed to achieve, and exceed, this number. We also have additional planting planned for the 2024/25 season. The scale of the tree planting will bring a benefit through carbon sequestration. As a result, we have undertaken a carbon sequestration calculation to try to understand the impact of the trees on carbon emissions.
- 5.9 Figure 4 outlines the impact of our tree planting on net emissions. The section of the bars indicated in dashed green outlines the potential reduction in emissions as a result of the carbon sequestration calculations from our tree planting. The total height of the trajectory figures is the same as the projections in figure 3, however, the green bar now outlines the estimated emissions that would be reduced as a result of the tree planting, leaving the grey dashed figure as the remainder of the trajectory figure if this was to be applied. The calculation assumes that there will be a 10% failure in regards to the whips planted each year for the three years.

Figure 4: Net greenhouse gas emissions trajectory with carbon sequestration impact

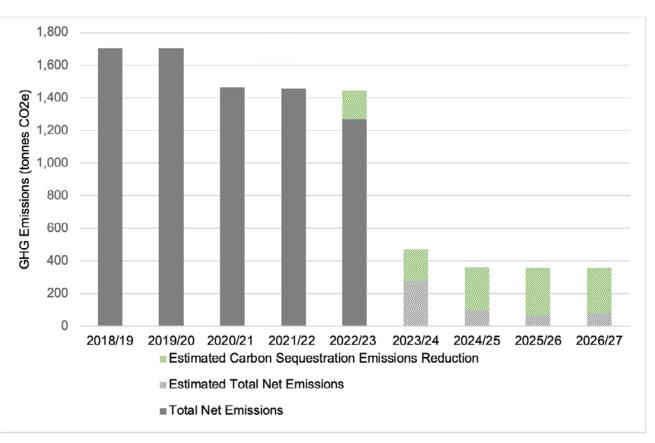
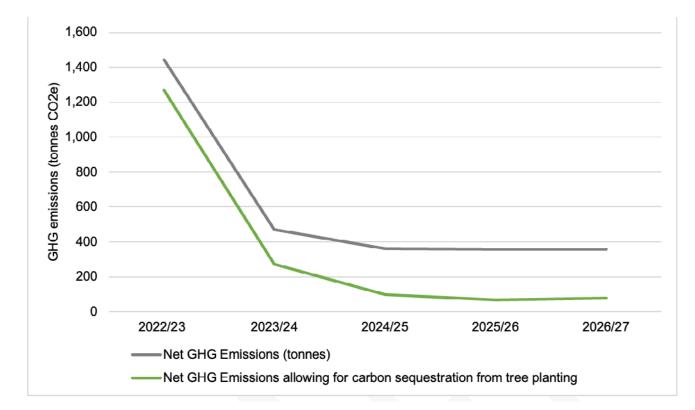


Figure 5: Net greenhouse gas emissions trajectory with carbon sequestration impact from 2022/23 to 2026/27



- **5.10** Figure 5 provides a more concentrated representation of the impact on emissions as a result of the carbon sequestration calculation, focusing on the impact over the timeframe of the CEAP, 2023/24 to 2026/27. The figures used are the same as those presented in figure 4.
- **5.11** Research into carbon storage and sequestration is a relatively new science. There is not one universal calculation and the research shows varying figures in the literature which arise for a range of factors including ages of habitats, species, soils, and location. Therefore, we recognise the benefit of carbon sequestration on our emissions, but cannot be precise of the actual impact. We

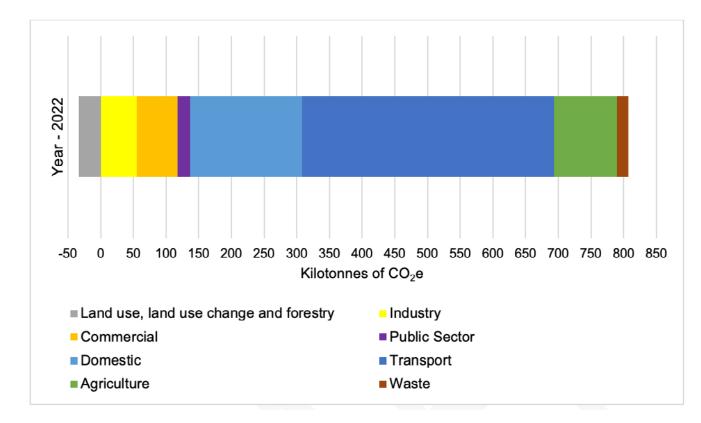
have highlighted the benefit but not discounted from the net emissions. We will revisit it as the science becomes more certain.

Test Valley Borough emissions

5.12 The graph below outlines the main contributors to greenhouse gas emissions within the borough using the latest national data². This highlights the key sectors contributing to emissions in the borough, which can help to guide where action can be taken alongside taking account of where we have most influence. For example, we can work with Hampshire County Council (the highway authority) on the contribution of transport emissions but some of this will also reflect emissions associated with motorways and trunk roads running through the borough. This dataset indicates that emissions in the borough have decreased by about 34% between 2005 and 2022.

² Available: <u>https://www.gov.uk/government/collec-</u> tions/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics

Figure 6: Greenhouse gas emissions within the borough of Test Valley by sector for 2022 (Department for Energy Security and Net Zero, 2024)



- **5.13** Although harder to measure, the council have implemented multiple strategies and policies to reduce borough wide emissions. A few examples have been outlined below:
 - The 33,300 trees planted from 2021-2024 which will contribute to reducing borough wide emissions, as well as council

emissions. A tree strategy will also be produced within the timeline of this document which will seek to provide further details on how we aim to manage our existing tree stock and consider opportunities for tree planting over the next three years and beyond.

- A number of grants including use of rural prosperity fund allocations have been produced to help our more rural and farming communities enhance their green spaces and community assets. A specific grant relating to climate change and communities will also be developed and delivered within the timeframe of this document.
- We are working with Hampshire County Council on sustainable transport and infrastructure schemes to help reduce emissions within the transport sector.
- A net zero carbon advice note has been produced as advice to building professionals on how to achieve net zero for new builds and via retrofit of homes.

6. Actions

Overview of Actions

- 6.1 To help reflect the different ways in which we will be reducing emissions over the next three years, we have split out our actions into three groups. We recognise there is some overlap between them.
- **6.2** As far as possible, the actions are specific and measurable so that we can highlight the impact that we have on greenhouse gas emissions through decarbonisation of council assets, borough emissions and via education/raising awareness within the local community.
- **6.3** These actions support the delivery of the council's strategic priorities as set out in our Corporate Plan and align with a number of other strategies. In some cases, these strategies will be proposing actions on specific topics that will also assist in working towards the objectives in this document but have not been repeated, particularly where they may have other key drivers for implementation.
- **6.4** It is important to acknowledge that although the actions outlined below highlight key areas of impact that we want to focus on to reduce emissions now, we will be continually monitoring

seeking other opportunities to reduce our emissions where we can. When this occurs, these areas will be explored and subsequent actions will be set to ensure that we are continuously progressing. Additionally, there are some actions that we will take in future years that will influence our emissions that will be after the current plan period, reflecting the operational life of existing equipment and prioritisation of activities. For example, switching heating systems in our buildings to low carbon systems will reduce our emissions but we intend to do this when existing systems are nearing end of life.

Table 1: Council emissions

6.5 The actions within this table relate to ways we are looking to reduce the council's emissions and help to ensure the organisation is able to adapt to the changing climate. Some examples of actions include decarbonisation of buildings, EV infrastructure and developing policies such as a tree strategy. We will be working in a timely manner to complete these actions providing successful examples of carbon emissions reduction.

6.6 This table does not set out matters that we would consider to be business as usual, such as taking account of climate change in our decision making, service delivery, and asset management, or complying with legal requirements on the council such as the Minimum Energy Efficiency Standards (MEES).

Table 2: Borough emissions

6.7 The actions within this table relate to emissions external to the council. which are more likely to influence borough wide emissions. Some key projects that will be taken forward include delivering the second year of the Test Valley community energy project in conjunction with Community Energy South, investigating future demand for EV charging points in Test Valley car parks and completing a feasibility study to assess the technical and economic potential a heat network in Andover. There are additional projects underway that may influence emissions across the borough that are reflected in other strategies, policies, or projects, either for the council or through our work with partners. This includes changes to kerbside waste collection services, implementing our urban meadows initiative, and the preparation of a Hampshire Local Nature Recovery Strategy.

Table 3: Engagement, educationand awareness

- **6.8** The actions within this table relate to areas that the council can influence through engagement, awareness raising and communication, but do not have the ability to measure the reduction in emissions. The actions within this table look at working with partners, and community groups to help influence emission reduction, adaptation and improve resilience within the community. This includes signposting to available grants and funding.
- **6.9** The actions identified have been included as a priority due to the significance of their impact on emissions over the next three years.
- **6.10** The council is actively working with partners including the Test Valley Resilience Forum, which provides communities with the opportunity to learn from each other on a range of matters, including relating to local flooding issues.



7. Resourcing, monitoring, and reporting

- 7.1 The council has repeatedly demonstrated its flexibility in budgeting and using its reserves to help deliver our climate change goals. This includes building in additional costs for committing council resources to capital projects that will help deliver the CEAP objectives. We will therefore be using this approach in regard to delivering this action plan over the next three years. In doing this, we recognise we would have to consider each action and the impacts on budgets individually and would review them on a case by case basis.
- **7.2** Progress of the CEAP will be monitored in line with the corporate action plan process and will continue to develop as our understanding increases of emission reduction and the most effective ways to do this.
- 7.3 We will therefore continually monitor and evaluate the progress of this action plan against the intended outcomes, and review and refine it based on lessons learnt and from assessing actions from other councils. This will include monitoring the emissions and progress based on delivering the actions. This will be undertaken as part of an annual progress report, to include the metrics and qualitative updates associated with the delivery of the actions. Any additional information or relevant updates will also be provided. This will reflect on the addition of opportunities

that may arise within the three years of this plan. For example, even though the actions are set to be completed within the next three years, other opportunities may arise that can be included within the actions plan during this time. This could refer to council emissions, external actions or working with community groups. This is to make sure that we work in line with the climate emergency and the changes required to adapt to it. We will also continue to recognise opportunities to reduce emissions beyond the lifespan of this document.

- **7.4** An annual greenhouse gas emissions report will be produced outlining the measurements of the council's gross and net emissions to show how emissions have changed from the previous year. This is reported on the council's website.
- **7.5** The climate emergency working group, who report to cabinet, will be involved in monitoring progress of the delivery of the actions, which will feedback into the corporate action plan. The plan will continue to be reviewed in line with the cycles of the preparation of Corporate Plan.



7.6 The climate emergency working group will provide an annual report to cabinet outlining the progress against the actions and make recommendations for amendments to the CEAP, in line with the terms of reference.

Annex 1: Climate Emergency Actions

Table 1: Council Emissions Actions			
Action	Timescale/Milestone	Impact	
1. Investigate the feasibility of implementing measures to improve the energy efficiency and enhance our use of renewable energy at Portway Depot, including through pipework insulation, replacing glazing, and installing additional solar panels (potentially with supporting energy storage).	By end of March 2025	Investigation of action will help to determine level of impact. The resultant projects have the potential to reduce greenhouse gas emissions and reduce summer overheating.	
2. Investigating measures to improve energy efficiency and use renewable energy at Walworth Enterprise Centre e.g. cavity wall insultation, solar PV panels (potentially with energy storage), and air source heat pump(s).	By end of March 2025	Investigation of action will help to determine level of impact. The resultant projects have the potential to reduce greenhouse gas emissions.	
3. Plan and deliver the new theatre in Andover to operate as closely to being carbon neutral as possible.	By Autumn 2027	Delivered to a minimum of a BREEAM ³ Very Good rating, with the aim to achieve a BREEAM Excellent rating. This should deliver a low carbon building.	
4. Investigate the feasibility to install batteries for energy storage where solar PV panels are being/have been installed.	Ongoing action for all relevant projects.	Benefit to be gained during winter when daylight hours are reduced as the savings come direct off panels during daylight hours.	
5. Explore the carbon storage and sequestration role of our parks, nature reserves and other green spaces and opportunities to enhance management to improve this potential and additional opportunities for carbon offsetting.	By end of March 2025	Investigation of action will help to determine level of impact. Any recommendations would need to be made having regard to the function of the green spaces (e.g. sports pitches) and conserving and enhancing biodiversity.	

Table 1: Council Emissions Actions		
Action	Timescale/Milestone	Impact
6. Scope and produce a Tree Strategy which would see the roll out of management principles, the approach to replacement planting and new planting across council property throughout the lifetime of the CEAP.	By end of March 2025	Medium impact to help carbon storage and lower the council's and borough's emissions
7. Replace lighting with LEDs across the council's built assets.	Subject to resources, this will be completed within between 2 and 5 years.	Low impact on council's gross emissions in terms of electricity consumption.
8. Review EV charging infrastructure for council vehicles and staff.	By end of March 2025	Ensuring our infrastructure is fit for purpose for the fleet and support staff to be able to use electric vehicles for business travel will secure sustainable travel within our fleet in future years.
9. Investigate the feasibility of installing a solar canopy on the top deck of the Chantry Centre Multi-Storey Car Park. As part of this, consider whether any scheme should include energy storage options.	By end of March 2025	 Investigation of action will help to determine level of impact. 10 panels save about 1.8 tonnes of CO₂ per year. Calculations are underway to understand if the building can hold extra weight of solar panels.
10. Implement an integrated waste collection approach for council sites that maximises the range of materials that can be recycled.	By end of March 2025	Low impact on greenhouse gas emissions.
11. Investigate opportunities to reduce the unnecessary use of disposable/single use materials.	Ongoing action	Investigation of action will help to determine level of impact.

Table 1: Council Emissions Actions			
Action	Timescale/Milestone	Impact	
12. Continue to roll out smart energy meters across the council's larger built assets (based on energy consumption).	List of assets to be fitted with smart meters to be submitted to energy companies by end of 2024.	This will enable more detailed and accurate information to be available to inform our monitoring and project identification.	
13. Replace the external lighting in the car park at Beech Hurst with LEDs	Complete by end of March 2025	Low impact on the overall council's emissions.	
14. Update the Procurement Strategy in the context of the climate emergency and incorporate ethical, sustainable criteria into the procurement process.	Complete by end of 2024	This will influence impacts associated with subsequent procurement.	
15. Undertake a climate change risk assessment in relation to the council's assets and service delivery.	Complete by end of March 2025	This will provide a basis for the council to review actions it may need to take to improve our future resilience.	
16. Investigate feasibility of installing cavity wall insulation at Former Magistrates Court, Romsey.	By end of March 2025	Investigation of action will help to determine level of impact	

Table 2: Borough Emission Actions		
Actions	Timescale/milestone	Impact
17. Continue to engage in supporting the implementation of the Local Transport Plan, as a mechanism to encourage greater use of active and sustainable travel modes.	Ongoing action. The plan looks forward to 2050 but is likely to be reviewed prior to this, with short term (to 2025) and medium to long term priorities established.	This will provide a framework for active and sustainable travel opportunities in the borough, as well as reducing private car travel. Given transport is a significant source of emissions in the borough, the impact could be medium to high.
18. Complete a feasibility study to assess the technical and economic potential of a heat network in Andover town centre.	By end of 2024	Investigation of action will help to determine the feasibility and level of impact.
19. Undertake an assessment of heat network zones across the borough.	By end of 2024	Investigation of action will help to indicate opportunities in the borough before potential national changes in the approach to delivery of heat networks.
20. Through the preparation of the Test Valley Local Plan 2040, ensure policies and proposals facilitate the move towards carbon neutrality and active & sustainable travel.	Submit for examination in mid-2025.	These policies will influence sustainable development, including emissions within the borough and resilience of future development. This could include through enabling more active and sustainable travel, more energy efficient buildings, and enabling the delivery of renewable and low carbon energy.
21. Produce a guidance resource on heritage assets for energy efficiency & renewable energy proposals.	By end of 2024	This will support owners of heritage assets to move forward with projects that support emissions reduction.
22. Promote and raise awareness of grants available to residents to improve the energy performance of their homes, this includes the Warmer Homes scheme.	Warmer Homes available until March 2025	Low overall but could have a significant impact on energy use and therefore greenhouse gas emissions for the specific properties.

Table 2: Borough Emission Actions		
Actions	Timescale/milestone	Impact
23. Work with Hampshire County Council to prepare the Local Cycling and Walking Infrastructure Plan (LCWIP) for northern Test Valley.	Early 2025	This will provide a framework for enhancing walking and cycling infrastructure, that should enhance opportunities for active travel within the borough.
24. Continue to work with Hampshire County Council in relation to community transport opportunities within the borough.	Ongoing action	The availability of community transport can have a number of benefits which includes the availability of more sustainable travel opportunities, which may contribute to reducing emissions in the borough.
25. Work with Hampshire County Council in their planning and delivery of the role out of on-street electric vehicle charging point through the Local Electric Vehicle Infrastructure (LEVI) scheme.	Deployment of charging points is anticipated to be undertaken over five years from 2025/26	This will help to encourage use of electric vehicles within the local community, providing opportunities for emissions reduction.
26. Investigate future demand of EV charging points in Test Valley car parks.	By end of 2024	Investigation of action will help to understand appropriate next steps and possible level of impact.
27. Deliver the second year of the Test Valley community energy project in conjunction with Community Energy South.	By end of March 2025	This aims to deliver feasibility studies and targeted support to aid community and household decarbonisation projects.
28. Work with communities to develop case studies of projects undertaken locally that others can use to inform their own schemes.	By end of March 2025	This will help share learning which may enable additional projects to come forward that can contribute to reducing greenhouse gas emissions.
29. Deliver the rural net zero support project to include a pilot project on land management.	By end of March 2025	This will outline feasibility of the impact, which will occur by changing standard practices to help reduce emissions.

Table 2: Borough Emission Actions			
Actions	Timescale/milestone	Impact	
30. Deliver the rural net zero support project to include and business advice service.	By end of March 2025	This will deliver advice and an education platform, contributing to emissions reduction.	
31. Deliver the rural net zero support project to include capital grants programme.	By end of March 2025	This will deliver funding to implement measures contributing to emissions reduction.	
32. Take action under the Minimum Energy Efficiency Standards (MEES) policy where private rented housing fails to meet the minimum energy efficiency standards.	Ongoing action	Low impact due to small number of properties in the borough which are below EPC rating of E.	
33. Supporting climate change related initiatives and project emerging through engagement with communities through the Thriving Communities project.	Ongoing action	While individual projects may have a relatively low impact, cumulatively their effect will be more substantial.	
34. Design and develop a community grant specifically related to climate change.	By end of March 2025	The level of impact would be dependent on the grant proposal that emerges.	

Table 3: Engagement, education, and awareness			
Actions	Timescale/milestone		
35. Continue to work with partners through local resilience forums to include appropriate consideration of risks associated with climate change.	Ongoing		
36. Through the preparation of planning policy and determination of planning applications, promote active and sustainable travel opportunities within new developments.	Ongoing. This includes the draft Local Plan having regard to the Local Transport Plan.		
37. Continue to use our communication tools, including the website and Green Test Valley e-newsletter, to raise awareness of and signpost to opportunities and advice on reducing greenhouse gas emissions and adapting to climate change.	Ongoing. This includes continuing to share new information to promote adaptation to climate change or opportunities for funding and grants.		
38. Share updates, best practice, and case studies with local communities to support community based action on climate change. This will include engagement with the Test Valley Association of Parish and Town Councils.	Ongoing. This links to actions 28 and 33 to enable communities to have case studies to help them with their own projects.		
39. Work with organisations that deliver services on behalf of the council to encourage them to act on reducing their greenhouse gas emissions. This would include Places Leisure, as the operator of assets including Romsey Rapids and Andover Leisure Centre and Registered Providers in relation to their existing housing stock.	Ongoing This includes helping Places Leisure to apply for funding to help decarbonise their buildings and reduce their energy bills.		