



# GUILDFORD BOROUGH COUNCIL

## Climate Change Action Plan

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## Foreword

**By Cllr George Potter**

## 1.0: Introduction to Climate Change

### 1.1: What is Climate Change?

The term *Climate Change* refers to the shift in global weather patterns caused by a rise in global atmospheric temperature. Naturally occurring greenhouse gases including carbon dioxide and methane, support life on Earth by trapping solar heat within our atmosphere and creating stable, regional, weather conditions. When measured over time these predictable weather patterns determine a regions climate.

Over the last 150 years, human activity has significantly increased the level of greenhouse gases in our atmosphere, leading to a rise in global temperatures and subsequently causing dramatic changes

in regional weather patterns. These changes have serious environmental, social, and economic consequences.

#### 1.1.1: Additional information: Greenhouse gases (GHG)

Greenhouse gas is any gas that is found in the atmosphere which absorbs and reemits infrared energy (heat). This heat contributes to the greenhouse effect which keeps Earth's atmosphere warmer than it would be without GHGs.

#### 1.1.2: Additional information: The importance of carbon

The element Carbon is found everywhere on Earth. It is in the rocks and the soil, in Earth's atmosphere and within the oceans, it can be stored for long periods of time within these "reservoirs". Living organisms create another carbon reservoir as carbon is an essential element for all life. It makes up the framework for organic cells and provides the energy needed to develop and grow. Carbon is not a static element staying in one of the above 'reservoirs' forever, it moves between these regions providing an important role in each of them, this is known as the carbon cycle.

A simplified description of how carbon moves between reservoirs is described below.

Geological processes, such as volcanoes and weathering of rocks, transports carbon from the geological to the atmospheric reservoir, as carbon dioxide gas. Carbon traps heat from the Sun and warms the atmosphere to a temperature which allows for liquid water on Earth's surface.

Plants absorb carbon dioxide from the atmosphere and use it to grow. Once the plant dies, the carbon in its cells may become buried within the soils, or it is released back into the atmosphere as carbon dioxide as the plant decays. Alternatively, organisms eat the plant and use the carbon within their own bodies. The carbon may be released back to the atmosphere through respiration or is buried within soils once the organism dies.

Carbon enters the oceans through water running off the land or by absorption from the atmosphere, where it can be used by marine organisms. Once the organisms die the carbon becomes trapped at the bottom of the ocean as sediment. Over time these sediments are compressed and form rock, where the organic carbon is stored until it is released through further geological processes.

Without human interference, the flow of carbon into, and out of, these reservoirs is roughly stable, creating a balance of carbon within each of these reservoirs.

Through geological processes, organic carbon can form carbon rich sediments such as oil and coal. These sediments are extracted from the ground and used as fuel for industrial and domestic purposes. The burning of these fuels releases carbon dioxide into the atmosphere at a greater rate than would naturally occur. This raises the amount of carbon dioxide in the atmosphere which increases the warming affect and drives climate change.

### 1.2: The Impact of Climate Change

On a global scale we are already experiencing the effects of climate change, retreating ice caps at the poles and from glaciers, loss of biodiversity due to changing weather patterns, deadly flooding and droughts from extreme weather events, and the acidification of our oceans from the absorption of excess carbon in our atmosphere, all have a devastating effect on global communities, infrastructure, and wildlife.

Nationally we see these effects as warmer annual temperatures, increased rainfall and flooding, and an increase in extreme weather events such as heat waves and storms. More frequent and severe

weather events are predicted for the future, resulting in significant environmental and economic impacts and risks to health and wellbeing:

- Hotter summers and more frequent heatwaves lead to increased risks to vulnerable members of our community and result in an additional strain on our health services.
- Droughts during the summer months increases the wildfire risk to Guildford's rare heathland, damaging important habitats and affecting local biodiversity.
- Increased rainfall results in more severe flooding events, damaging local infrastructure and placing local emergency services under pressure.
- Food production and water supplies are affected resulting in higher food prices and creating a financial impact on Guildford's residents.

By providing a holistic and comprehensive Climate Change Action Plan, Guildford Borough Council seeks to identify the gaps and opportunities to increase climate resilience within the borough and support residents, businesses, and the wider community in the mitigation of, and adaptation to, climate change.

#### 1.2.1: Additional information: Climate adaptation, mitigation, and resilience; what is the difference and why are they important?

Carbon emissions can remain in the atmosphere for hundreds of years, which means that while efforts are being undertaken to reduce our current emissions, the excess carbon in the atmosphere will remain and cause further environmental challenges and atmospheric warming.

Climate adaptation means preparing for the impact of climate change, taking actions to prevent or minimise the damage from the climatic changes already in process, and benefitting from the opportunities that climate change may present. This forward planning reduces the vulnerability of Guildford and the individuals and organisations that make up our community.

Mitigation looks to reduce or prevent carbon emissions from our existing activities to ensure atmospheric warming is kept to a minimum.

Improving resilience enhances the ability of individuals, the community, and organisations to absorb the stresses of climate variability and climate change.

#### 1.3: Why do we all need to act?

In 2015 world leaders recognised the global threat from climate change and signed the Paris Agreement<sup>1</sup> with the aim of keeping global atmospheric temperatures from increasing by 2°C through cutting carbon emissions.

In 2018, the Intergovernmental Panel on Climate Change (IPCC)<sup>2</sup> warned of catastrophic impacts for life on Earth should increases in global atmospheric temperatures exceed 1.5°C. A report published by the IPCC found that to achieve a 1.5°C limit in increasing global atmospheric temperatures:

*"Global net human-caused emissions of CO<sub>2</sub> would need to fall by about 45 percent from 2010 levels by 2030, reaching net zero around 2050"*

Due to the scale and urgency of the climate emergency, everybody, not just world leaders, have a responsibility in reducing global carbon emissions.

<sup>1</sup> [The Paris Agreement | United Nations](#)

<sup>2</sup> [Global Warming of 1.5 °C — \(ipcc.ch\)](#)

### 1.3.1: Additional information: Carbon emissions:

For simplicity we refer to all greenhouse gas emissions within this document as 'carbon emissions'. However, it is important to note that it is not just carbon dioxide (CO<sub>2</sub>) that is being referred to here. Other gases include methane (CH<sub>4</sub>), nitrous oxides (N<sub>2</sub>O), and any other greenhouse gases that are emitted through human activity, many of these gases have a greater warming effect on our atmosphere than CO<sub>2</sub>, however carbon dioxide is the most commonly emitted GHG from human activity.

The term CO<sub>2</sub>e refers to 'carbon dioxide equivalent', which allows for all greenhouse gases to be described as a standard unit. CO<sub>2</sub>e represents the amount of carbon dioxide required to create the same level of atmospheric warming.

### 1.4: The Co-Benefits of Tackling Climate Change

Tackling carbon emissions through a robust and ambitious climate change action plan can bring many inter-linked local and national co-benefits. Encouraging a 'multi-solving' view of issues allows for several positive aims to be met.

For example, improving cycling routes with the primary objective of reducing local vehicle emissions would also benefit the health of the local population through increased physical activity and improved air quality. Expanding and developing our green spaces to accommodate these cycle routes provides additional benefits to local biodiversity which also provides a further benefit to the wellbeing of the local population. A healthier/happier population reduces the strain on local medical facilities and community care organisations.

Including a co-benefits approach in this action plan has many advantages,

- Several positive outcomes can be achieved at once creating a stronger business case for implementing climate change actions.
- By prioritising those actions that have multiple beneficiaries there is more co-operation and support for the action plan.
- Creates opportunities for seeking additional funding and resources from a wider range of stakeholders.

Co-benefits have been considered as part of this action plan and are listed under the following categories,

**Enabling local, open, and participative government** – Actions that support GBC's key values in developing open and transparent governance contribute to improving the reputation of GBC within the community. Promoting greater accountability within GBC through informed and connected citizenship ensures achievements are not overlooked and outcomes are scrutinised. Participative governance improves trust within the local authority, encourages public education and engagement and promotes innovation and resilience within our community.

**Supporting a strong, resilient, local economy** – Climate change presents an opportunity to develop a strong and resilient green economy. Developing green skills and jobs, supporting locally produced green energy, and improving links between local suppliers, will work towards creating an economy that can respond more easily to changes caused by the impacts of climate change.

**Providing good quality housing** – Fuel efficient, well insulated, and comfortable housing will help to manage fuel costs, tackle fuel poverty, and promote social equality in the borough. Warmer homes

during cold weather and cooler homes during heat waves, work towards protecting vulnerable people and may reduce excess deaths and further demand on health care and the NHS.

**Ensuring effective strategic planning and development management** - A robust policy on new developments will allow for innovation within the construction industry and mitigate the risk of having to retrofit developments in the future. Effective planning increases the resilience of the community to the effects of climate change by reducing the risk of flooding and diminishing localised heatwaves. Addressing the causes of climate change and planning our response to the effects of these changes provides an opportunity for partnership work amongst key stakeholders, sharing resources and promoting closer ties to the community.

**Improvements to health, wellbeing, and biodiversity** – Actions tackling carbon emissions have a qualifiable impact regarding health and wellbeing. Poor air quality contributes to an estimated 40,000 deaths per year in the UK. Improving air quality through a reduction in fossil fuel use may ease demand on the NHS and local healthcare services. Improving local biodiversity has additional benefits such as storing and locking in atmospheric carbon and providing resilience to environmental change and flooding.

## 2.0: Climate Policy Background

### 2.1: Global

The United Nations Framework Convention on Climate Change (UNFCCC) and the global scientific community have identified that carbon emissions from human activities cause climate change. These global changes have severe environmental, economic, and social consequences. Global action is required to stabilise greenhouse gas concentrations in our atmosphere to:

*“... a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.”* (UNFCCC Article 2).

To tackle climate change and its negative impacts, 192 countries plus the European Union signed the Paris Agreement at the 2015 UN Climate Change Conference (COP21) in Paris. The Paris agreement is committed to addressing greenhouse gas mitigation, climate change adaptation, and finance. Under the Agreement, each country must determine, plan, and regularly report on the actions that it undertakes to mitigate global warming. In the 2021 UN Climate Change Conference (COP 26) held in Glasgow, 200 countries agreed to policies that aim to prevent global temperatures exceeding a 1.5°C rise.

### 2.2: National

In 2008, the UK government passed the Climate Change Act<sup>3</sup>. The Act committed the UK to lower net greenhouse gases by 80% or more of the 1990 emission baseline. The Act also established a Climate Change Committee to advise the Government on Carbon emission targets. In 2019 the Climate Change Act was amended to include a carbon neutrality target with a deadline of 2050. In December 2020, the Climate Change Committee (CCC) published its Sixth Carbon Budget<sup>4</sup> which advised that the UK would need to deliver a 78% reduction by 2035 if it is to meet its long-term net zero commitment.

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<sup>3</sup> [Climate Change Act 2008 \(legislation.gov.uk\)](https://www.legislation.gov.uk)

<sup>4</sup> [Sixth Carbon Budget - Climate Change Committee \(theccc.org.uk\)](https://www.theccc.org.uk)

### 2.3: Local

In 2019, Guildford Borough Council declared a climate emergency and committed to achieving net zero carbon emissions within the organisation by 2030. Surrey County Council (SCC) and many of the districts and boroughs within Surrey declared their commitment to reduce carbon emissions from their organisations aiming to achieve net zero by 2050.

While more ambitious in its targets, the Guildford Climate Change Action Plan is aligned with national policy including the 78% reduction in national emissions by 2035 which became law in June 2021.

#### 2.3.1: Additional information: What is net zero carbon?

'Net zero carbon' also referred to as 'carbon neutrality' refers to the balance between the carbon emissions entering the atmosphere being equal to the amount of carbon being removed from the atmosphere. To achieve net zero an individual or organisation needs to reduce their carbon footprint to as close to zero as possible, then balance (offset) the remaining emissions through removing carbon from the atmosphere.

Net zero carbon is different from 'Zero Carbon', which requires an activity to produce no carbon emissions.

## 3.0: Guildford Borough Council - Climate Emergency Declaration

On 23 July 2019, the Council adopted a motion to declare a Climate Emergency and passed a motion committing to actions including:

- Achieving net-zero carbon across all Guildford Borough Council services by 2030
- Establishing borough-wide partnerships to evaluate and determine how and when Guildford Borough could become carbon neutral.
- Developing a clear action plan and timescale for being net-zero carbon across our Council operations.

The climate change declaration is supported by the Council's Corporate Plan 2021 – 2025 to establish:

*"A green, thriving town and villages where people have the homes they need, access to quality employment, with strong and safe communities that come together to support those needing help."*

To meaningfully address these commitments, the Council set up the Climate Change and Innovation Board.

The Climate Change declaration was made by the Council in July 2019, since then there had been a development in understanding of the issues and terminology involved. As the Council moves forward it is important that its ambitions are clear. On the 30<sup>th</sup> November 2022, the original declaration was reviewed and clarified by the CCB.

The definition of Scopes 1, 2 and 3 emissions were addressed. Scope 1 was defined as the direct emissions created by the actions of the Council itself, such as gas and direct fuel usage such as from vehicles. Scope 2 is the indirect emissions from electricity generation for use within our buildings in the pursuit the activities the Council, and Scope 3 is defined as the indirect emissions arising from the Council's third-party relationships, through the procurement or supply of goods and services. There is not, as yet, a defined methodology for calculating or influencing Scope 3 emissions.



While Scope 3 is to be included in the Council's definition due to the credibility of the intent, it is necessary to understand that Scope 3 emissions might be outside of the ambition for 2030 as it may take additional time to work with partners and providers to achieve that outcome which would be in accordance with the targets as described under the Paris Agreement. GBC's procurement policy will be reviewed to understand current procurement practice, and whether the Council are bound to certain legal or procedural constraints. A review would also look at whether GBC are able to stipulate to businesses acting as providers to the Council that their emissions should be benchmarked with a plan for decarbonising to facilitate measuring and reducing Scope 3 emissions.

It was decided that Scope 1 and 2 emissions are to be set within the 2030 target, but Scope 3 emissions be subject to a separate ambition, once measurements to make accurate calculations are standardised. Adoption of an accurate measurement application would inform the declaration of net zero for Scope 3 and any offsetting implications.

It was also noted that the original declaration made no mention of the biodiversity emergency, air quality or resilience and adaptation to climate change when it had become clear these were important related challenges. The CCB asked that these challenges are incorporated into the GBC's Climate Change Action Plan.

The Climate Change Board suggested certain parts of the Council's portfolio might be reassessed and placed outside of the 2030 target if it appeared that could not be met by precisely the cut off year of 2030 but could be achieved more flexibly.

The primary focus of the Climate Emergency Declaration was to reduce the emissions the Council could control within the resources available, but also to act in a wider leadership role with stakeholders, partners and the community by setting an example and enabling change. The Action Plan is to be reviewed every two years to ensure it remains at the forefront of GBC's ambitions.

## 4.0: Emission baseline and projections

### 4.1: Organisational baseline

In 2008 Guildford Borough Council recorded its non-domestic carbon emissions inhouse and again in every year between 2013 to 2016. From 2016 to present, APSE Energy have calculated the carbon emissions over a financial year period (April – March). 2019 is used as the baseline year to measure the progress made since declaring a climate emergency, however data from 2008 has been included to address the long-term carbon emission trends of GBC and to account for the lowered emissions recorded during the Covid years .

Emissions are calculated as carbon dioxide equivalent (CO<sub>2</sub>e), which combine the seven most potent greenhouse gases into one measurement. These gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and nitrogen trifluoride.

The Greenhouse Gas Protocol (an international carbon accounting tool) categorises emissions under Scope 1 (direct emissions from fuel combustion such as within gas boilers and fleet vehicles), Scope 2 (indirect emissions from electricity purchased), and Scope 3 (indirect emissions due to Council related activities that occur at sources the Council do not own or control and are not classed as Scope 2 emissions, for example, waste disposal).

Due to covid, emissions data for 2020 – 2021 is considered to have been measured during a 'non-standard' year, meaning that comparisons to earlier years would not reflect an accurate trend. For

this reason, this report uses 2019 as the comparable year and will be updated once new data has been published.

Since 2008 Guildford Borough Council have reduced their carbon emissions by around 45%, a reduction of approximately 11% per year. **Figure 1** shows that Scope 1 & 2 emissions are the leading source of carbon emissions within the Council.

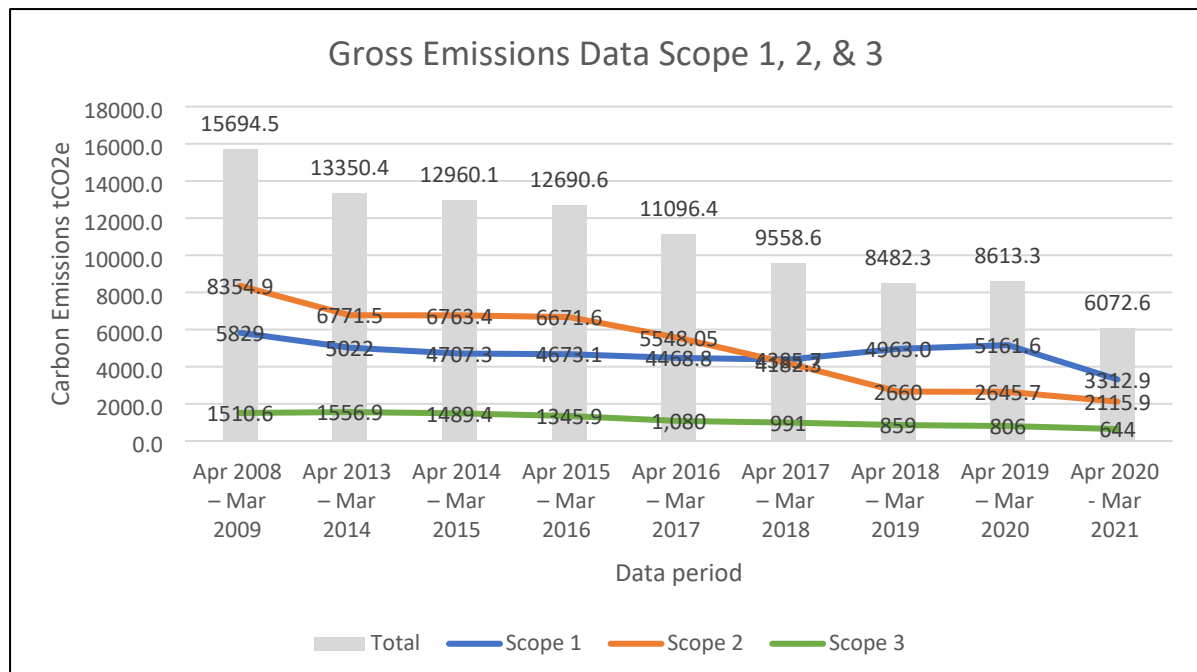


Figure 1: Gross emission data for Guildford Borough Council dating from 2008 covering a period of one financial year. Total gross emissions are broken down into Scope 1, 2, & 3 emissions. (Guildford Borough Council 2019-2020 Scope 1, 2 and 3 Carbon Emissions, APSE, 2021).

#### 4.2: Social Housing Emissions

The Councils Housing Revenue Account holds just over 5220 homes for which it has responsibility to manage and maintain the quality of the homes, but while the Council has direct duty for the performance of the building fabric, it has little control over the behaviour of its tenants with regards to energy consumption and sustainability.

In October 2021, the UK Government published the Net Zero Strategy: Build Back Greener<sup>5</sup> which introduced policies and proposals for the decarbonisation of the UK by 2050. The strategy set out a pathway and potential funding streams for the retrofitting of existing social housing to achieve net-zero within this timescale.

Due to the scale and complexity of ensuring GBC’s social housing stock achieves net-zero, and due to the timescales of available funding through various funding opportunities, GBC’s Housing Revenue Account (HRA) Business Plan aligns with the UK Governments Net Zero Strategy: Build Back Greener and works towards achieving net-zero across our social housing stock by the 2050 target.

The UK Governments Net Zero Strategy: Build Back Greener, also reinforced the aims of an earlier publication (Clean Growth Strategy, 2017)<sup>6</sup> to ensure that rented properties obtained a minimal Energy Performance Certificate Rating of ‘C’ by 2035, or 2030 for fuel poor households. Ensuring that

<sup>5</sup> [net-zero-strategy-beis.pdf \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/100222/net-zero-strategy-beis.pdf)

<sup>6</sup> [Clean Growth Strategy \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/64222/clean-growth-strategy.pdf)

council housing stock meet the standards set by the national Energy Performance Certificate (EPC), is a high priority for GBC. This will not only contribute to a reduction in carbon emissions, but it will also work towards reducing fuel poverty within the borough. Further savings can be achieved through an engagement programme with residents to inform, educate and encourage more sustainable behaviours.

The National Housing Federation produced guidance on the emissions from social housing and the responsibility of LA's to achieve net-zero by 2050.<sup>7</sup>

### 4.3: Borough wide emissions

In 2022, GBC commissioned APSE Energy to calculate the total carbon emissions for Guildford Borough.

To provide a calculated estimation of the borough-wide emissions, APSE considered three main models:

- Emissions of carbon dioxide for Local Authority areas published by BEIS<sup>8</sup>;
- SCATTER<sup>9</sup>;
- The Tyndall Centre carbon budget<sup>10</sup>.

While the methodology behind gathering the data of all three models is very similar, there are slight differences. The methodology is based on the Accounting and Reporting Standard<sup>11</sup> developed by the Greenhouse Gas Protocol, the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories<sup>12</sup> and the data sources from the same databases such as the Digest of UK Energy Statistics (DUKES) which contains data of actual energy usage for each sector.

This ensures that the data gathering process is robust, established, and enables a comparison with other local authorities.

#### 4.3.1 BEIS Calculation

Since 2005, The Department for Business, Energy, and Industrial Strategy (BEIS) have published an annual report of GHG emissions by region, this is further broken down into Local Authority area. The data is a subset of the UK GHG Inventory, which underpins both the National Statistics publication and the UK's other international and national reporting requirements for greenhouse gases. Between 2005 - 2018, the data published by BEIS only accounted for carbon dioxide emissions. Since 2022 BEIS have included the three most potent greenhouse gases, carbon dioxide, methane, and nitrous oxides and have included these three gases in the 2018 – 2020 reports.

The data from BEIS can be used to track performance annually however, the related years' carbon emissions will not be published by BEIS until two years later due to the data lag (e.g. short term actions in 2020/21 will not be in the released reported emissions until 2022).

Data from 2019 show that the total emissions for the Guildford area were 766.8 ktCO<sub>2</sub>e. **Figure 2** reveals that the greatest contributor to GHG emissions is from transportation (51%), 61% of these

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<sup>7</sup> [National Housing Federation - Decarbonisation: a guide for housing associations](#)

<sup>8</sup> [UK local authority and regional greenhouse gas emissions national statistics - GOV.UK \(www.gov.uk\)](#)

<sup>9</sup> [SCATTER \(scattercities.com\)](#)

<sup>10</sup> [Tyndall Carbon Budget Reports \(manchester.ac.uk\)](#)

<sup>11</sup> [The Global GHG Accounting and Reporting Standard for the Financial Industry | Greenhouse Gas Protocol \(ghgprotocol.org\)](#)

<sup>12</sup> [Global Protocol for Community-Scale Greenhouse Gas Emission Inventories | World Resources Institute \(wri.org\)](#)

emissions stem from the use of A-Roads. It is important to note that issues relating to Transport are outside the direct control of Guildford Borough Council.

Domestic emissions contribute to a further 27% of total emissions across the borough. This is comprised of approximately 70% generated from the use of gas fuel.

Industry and Commercial combined make up a further 13% of the total.

The Public Sector contributes to 5% of the boroughs emissions, data supplied by APSE in the GBC annual emissions report suggests that GBC is responsible for a fifth of these emissions and contributes to approximately one percent of the total borough wide emissions.

Land use, land use change and forestry (LULUCF) accounted for an emission offset of 54.8 ktCO<sub>2</sub>e with most of the offset being provided by forest land.

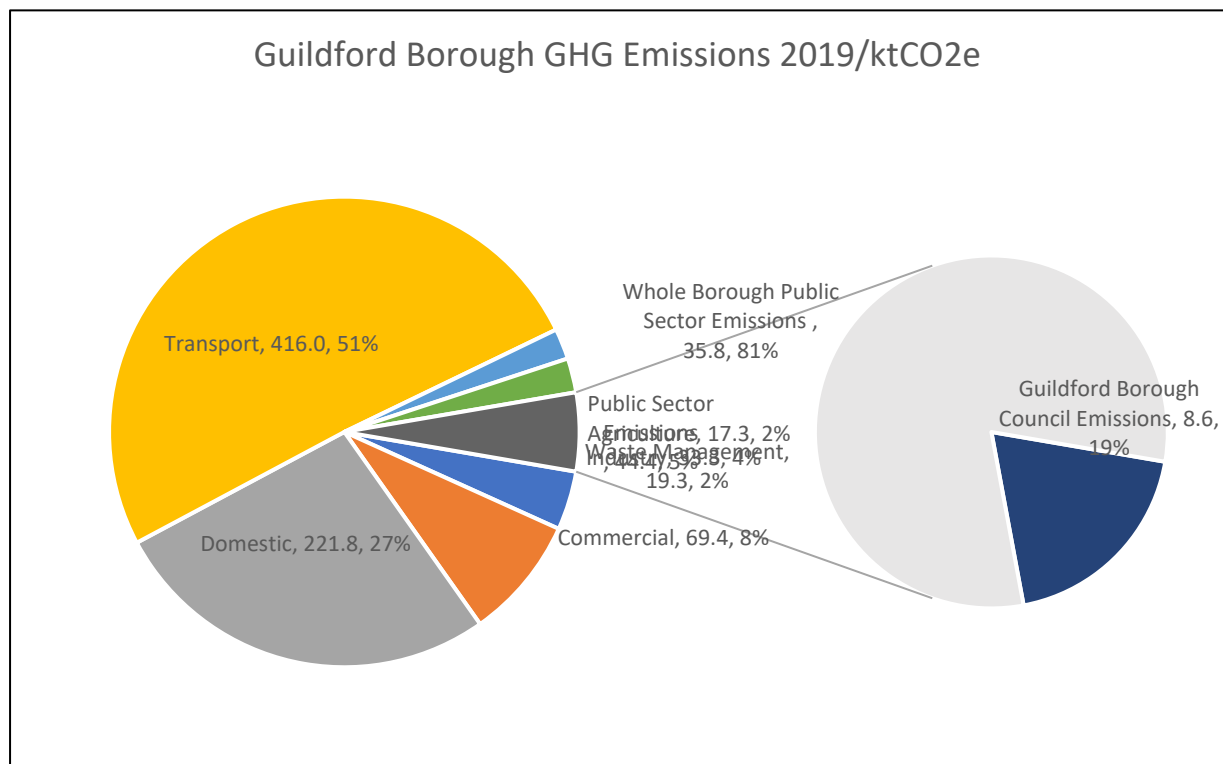


Figure 2: Percentage by source of greenhouse gas emissions across Guildford Borough in kilotonnes of CO<sub>2</sub>e (GHG measured: carbon dioxide, methane, & nitrous oxides), (*UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2020*, BEIS, July 2022) Guildford Borough Council emissions provided by APSE (*Guildford Borough Council 2019-2020 Scope 1, 2 and 3 Carbon Emissions*, APSE, 2021).

The population of Guildford Borough is continually growing. The “*Guildford Borough Local Plan: Strategy and sites 2015 – 2034*”, shows that the population is predicted to grow from 145,473 in 2015 to 167,126 by 2034. The document also sets out the housing requirement for Guildford. During the plan period, provision has been made for at least 10,678 new homes with 562 dwellings being built per annum over the plan period (2015 – 2034). Inevitably, due to the increase in population, the direct carbon emissions for the borough are also expected to rise.

To demonstrate carbon emissions within the context of a growing population, an alternative measurement of the boroughs carbon footprint based on emissions per capita provides an overview of changes within carbon emissions. **Figure 3** describes the population growth within the Guildford

borough area and the emissions per capita per year. It shows that there has been a reduction in carbon emissions of approximately 53% per capita in the 14-year period to 2019.

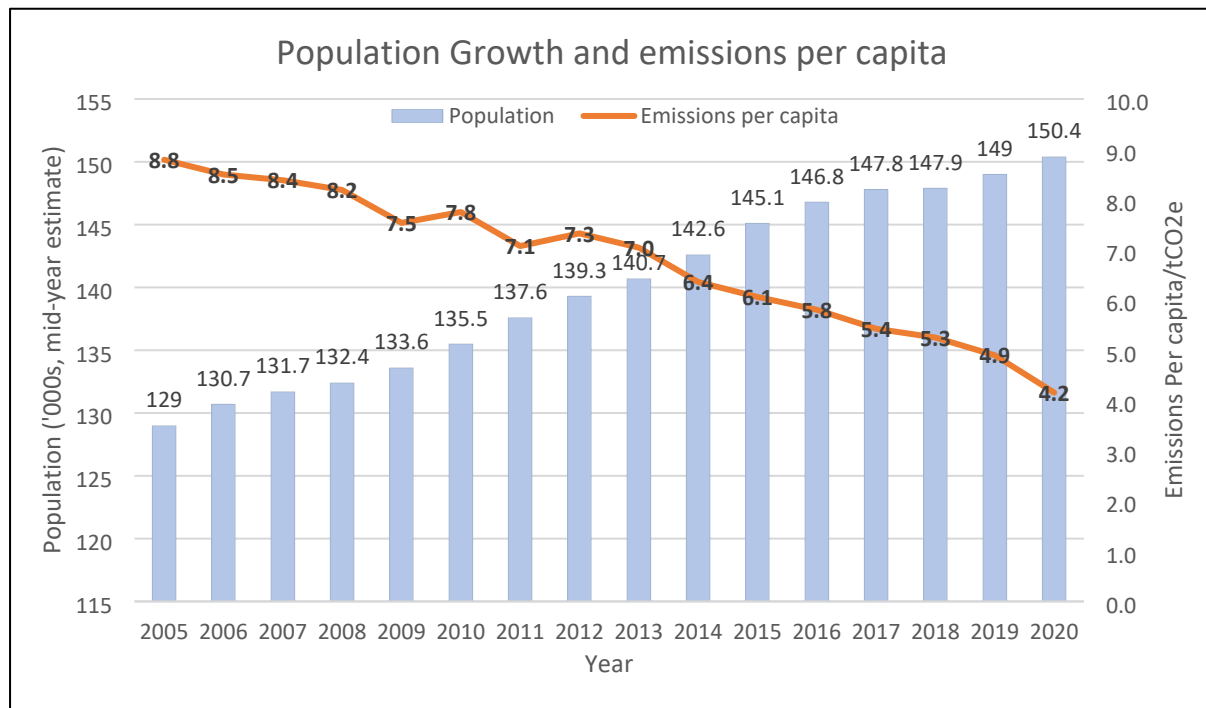


Figure 3: Guildford Borough population growth ('000's) compared with GHG emissions per capita (tCO<sub>2</sub>e). (UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2020, BEIS, July 2022) (Please note, the 2018 – 2020 per capita figures appear slightly lower (-0.2) than the published BEIS data as agriculture and waste totals have been omitted to ensure consistent comparisons with earlier years.

Analysis of the data provided by BEIS and carbon emissions estimations provided by APSE have shown that the contribution of carbon emissions to the borough by Guildford Borough Council are approximately 1.1%.

#### 4.3.2: Additional information: What is a carbon footprint?

A carbon footprint is the amount of CO<sub>2</sub>e released into the atmosphere by an individual, organisation or community through their activities. Per Capita Footprint refers to the amount per person in a given area. The per capita footprint for Guildford in 2019 was 4.9 tCO<sub>2</sub>e (tonnes of CO<sub>2</sub> equivalent)

#### 4.3.3 SCATTERCITIES and The Tyndall Centre carbon budget calculation

SCATTER (Setting City Area Targets and Trajectories for Emissions Reduction) is a tool dedicated to calculating the GHG emissions of local authorities and follows the Global Protocol for City-wide Greenhouse Gas emissions.

SCATTER and BEIS use the same data sources, but the methodology for calculating emissions differ. SCATTER includes additional GHG emissions such as methane and nitrous oxide, it uses different starting data, and includes categories not covered by the BEIS dataset. Therefore, the total emissions calculated by SCATTER differ from those reported by BEIS. The 2019 estimated carbon emissions as calculated by SCATTER is 1052.9 ktCO<sub>2</sub>e this is an additional 286.1 ktCO<sub>2</sub>e of carbon emissions as compared to the BEIS calculation.

#### 4.3.4 The Tyndall Centre carbon budget

The term 'carbon budget' is used to indicate the maximum amount of carbon a Council can produce in a particular period to stay within the goals of the Paris Agreement. A carbon budget should not be confused with a monetary budget to reduce carbon emissions.

The Tyndall Centre analyses the carbon emissions of local authorities and sets a carbon budget for each authority as an indicator on how emissions need to be reduced between 2020 to 2100. This allows the local authority to comply with the commitments of the Paris Agreement to keep global temperature increases well below 2°C.

The methodology and data sources are based on the same principles of SCATTER and the BEIS local authority emissions data; however, it differs from the above methods as it only accounts for CO<sub>2</sub> and not CO<sub>2</sub>e and excludes LULUCF. The carbon budget is calculated on a global and national level and then allocated to each LA area proportionally based on their regional emissions.

Guildford has a maximum cumulative emissions budget of 5.2 million tonnes (MtCO<sub>2</sub>) for the period of 2020 to 2100. Should Guildford continue emitting carbon at the levels recorded in 2017, Guildford would use this entire budget by 2027`.

### 4.4: Trajectory

#### 4.4.1: Borough wide targets

To deliver a carbon budget that is aligned with the Paris Agreement as recommended by the Tyndall Centre, Guildford will need to reduce its carbon emissions by a minimum average of -13.3% per year. By 2040, 95% of the recommended carbon budget will have been emitted and low-level CO<sub>2</sub> emissions will continue at a diminishing level to 2100. It should be noted that since 2005, the average reduction in carbon emissions in Guildford has been 2.7%, which is largely attributed to grid decarbonisation.

The data from the BEIS calculator has shown that between 2005 – 2019, transportation emissions were reduced by approximately 17%. Domestic emissions have similarly fallen by 48%, largely thanks to grid decarbonisation. However, if the carbon reduction trend continues at its current pace, borough emissions will not achieve the National Government's target to reach net zero by 2050.

#### 4.4.2: Additional information: Grid decarbonisation

The National Grid is the infrastructure used to transport electricity generated from power stations and plants across the UK to consumers. Decarbonisation of the grid is the actions taken to reduce the amount of CO<sub>2</sub>e emissions associated with the production of electricity. This has been achieved through the increase in renewable energy generation such as wind farms and solar power, and the reduction in the use of fossil fuels such as coal and gas.

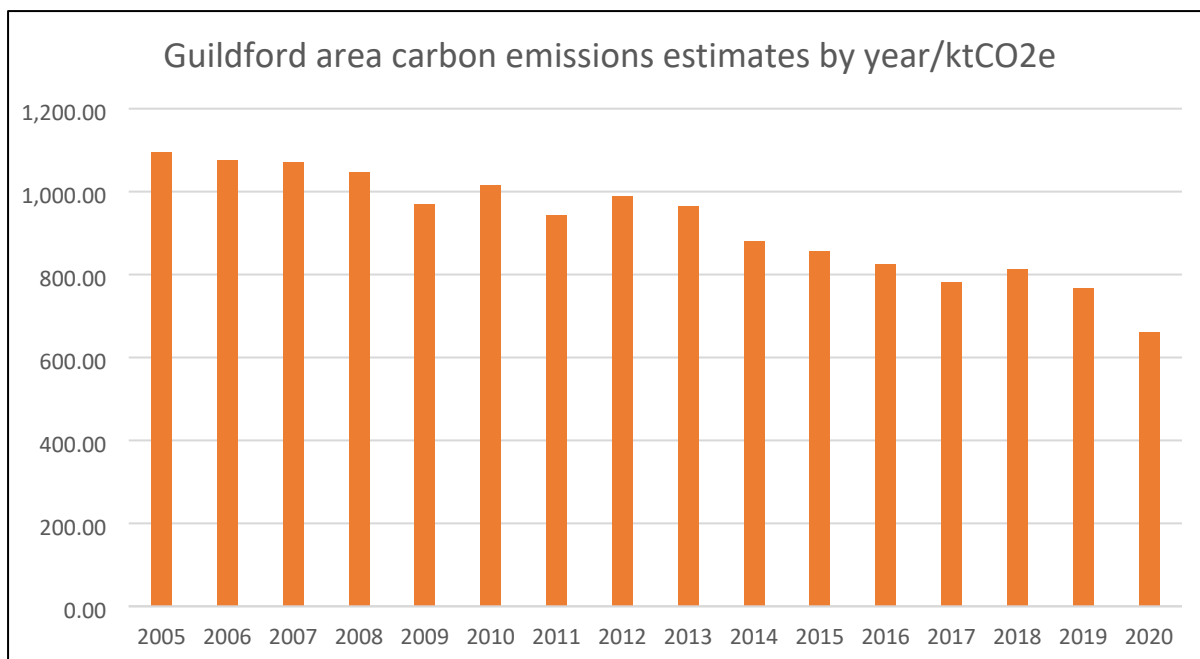


Figure 4: estimated total emissions from the Guildford area from 2005 to 2020. (UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2020, BEIS)

#### 4.4.3: Organisational targets

Since 2008 Guildford Borough Council have reduced their carbon emissions by approximately 45%, a reduction of approximately 4% per year, grid decarbonisation has contributed to this reduction. At this current rate, GBC will not achieve net zero by 2030.

APSE have calculated that to achieve GBC’s target of net zero by 2030, air source heat pumps (ASHP) are to be installed within the entire building estate, the council is to become more energy efficient, GBC is to invest in their own renewable energy generation and are to develop a tree planting scheme. All fleet owned by GBC is to be upgraded to electric vehicles. APSE have identified that 733 tCO<sub>2</sub>e will be unavoidable and will need to be offset through the development of 5 MW of solar farm generation capacity and an additional tree planting scheme. (APSE Energy, *Guildford Borough Council – Net Zero Carbon Emissions Trajectory*, July 2022)

#### 4.5: Carbon offsetting and sequestration

In the “*Climate Change, Sustainable Design, Construction and Energy SPD*”<sup>13</sup> (adopted by GBC September 2020), an energy hierarchy was developed which set out the steps to be followed to reduce carbon emissions. This Climate Change Action Plan uses the same key principles as detailed within the SPD; consumption/demand should first be eliminated wherever possible, and then reduced, before sustainable sources are used to meet any remaining need.

#### Energy Hierarchy:

**Step 1:** Eliminate energy need – Energy use is to be identified and measures to be taken to reduce the amount of energy used.

**Step 2:** Use energy efficiently – Where energy use is unavoidable, efficient practices should be used.

<sup>13</sup> [Climate Change, Sustainable Design, Construction and Energy SPD - Guildford Borough Council](#)

**Step 3:** Supply energy from renewables and low carbon sources – the energy that is required should be sourced from renewable and sustainable low carbon sources.

**Step 4:** Offset carbon emissions – Any unavoidable carbon emissions should be offset through measures that reduce carbon emissions to, or remove carbon from, the atmosphere.

Carbon offsetting is a compensation method of balancing carbon emissions. This can be achieved by developing or participating in schemes that remove, or prevent the generation of, the equivalent amount of carbon from those unavoidable GHG emissions.

Carbon sequestration is the act of securely storing the carbon once removed from the atmosphere.

It is estimated that by 2030 GBC will continue to produce approximately 733 tCO<sub>2</sub>e emissions from hard to reduce sources and a scheme to offset these emissions will be required.

## 5.0: The Path to becoming carbon neutral council

### 5.1: Vision

This action plan reflects the values held by Guildford Borough Council as detailed within the Corporate Plan<sup>14</sup>:

- we will put the interests of our community first
- we will listen to the views of residents and be open and accountable in our decision-making
- we will deliver excellent customer service
- we will spend money carefully and deliver good value for money services
- we will put the environment at the heart of our actions and decisions to deliver on our commitment to the climate change emergency
- we will support the most vulnerable members of our community as we believe that every person matters
- we will support our local economy
- we will work constructively with other councils, partners, businesses, and communities to achieve the best outcomes for all
- we will ensure that our councillors and staff uphold the highest standards of conduct

### 5.2: The Council's Role

Guildford has a crucial role in tackling climate change. We have a role as a community leader, setting an example by adopting our own policies and publishing our achievements and plans to effect change, with a view to encourage and influence others. GBC recognises the magnitude of achieving the 2030 net zero target and acknowledges that it has limited powers, responsibilities, resources, and finances. The council is committed to reducing its own carbon footprint to net zero, to champion businesses who are actively working to reduce their carbon footprint, and to create both the infrastructure and provide the information to aid our residents to reduce their individual/household carbon footprint.

Many of the changes that will be required to achieve net zero will be in the control of those outside of the council's sphere of responsibility, including members of the public, private and third sector parties, and individuals. The council will work closely with stakeholders in implementing this action plan by:

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<sup>14</sup> [Corporate Plan 2021-2025 - Guildford Borough Council](#)



- **Delivering** – Ensuring that GBC takes those actions that are directly within our control to deliver a defined outcome.
- **Enabling and facilitating** - Actions where the role of GBC is to facilitate delivery of climate change programmes by empowering organisations and communities to deliver beneficial outcomes.
- **Supporting and encouraging** - Actions where the council can encourage or contribute to the delivery of a quantifiable outcome.
- **Lobbying** - Actions where the primary role of GBC is to push for change within our community.

These categories will be defined throughout each individual action within the action plan.

#### 5.2.1: Additional Information: The Community Wellbeing Team

GBC recognise their role as a leader within the borough to support and develop community efforts to reduce carbon emissions and in tackling the challenges set by climate change. The climate change action plan seeks to involve all members of Guildfords community especially those that that may not be able to access our services through regular means.

Within the council’s Community Services, the Community Wellbeing Team aim to improve the lives of residents in the borough’s least advantaged areas by working with partners, businesses, and communities in delivering the changes local people wish to see. The Community Wellbeing Team aims to enable people feel empowered, care about themselves and their neighbours so that they can live well for longer, with independence and a sense of belonging within a resilient self-sustaining community. The team looks to engage and assist communities that might otherwise be missed and providing outreach and support to those who are more vulnerable.

### 5.3: Key Priorities and Targets

To identify the key priority areas for this action plan, GBC have considered the recommendations as set out within the APSE Trajectory report (July 2022) and previous emission reports also provided by APSE. We have reviewed Surrey County Council’s Climate Change Strategy and subsequent Greener Futures Delivery Plan. GBC have also reviewed the information provided by BEIS for an overview of the total carbon emissions from the Borough. Guildford Councillors have set the strategic direction and Officers have had an input on service specific capabilities. The nine key areas of focus are set out below.

#### 5.3.1: Focus on Climate Emergency Funding

Achieving carbon neutrality by 2030 will be a huge challenge for Guildford Borough Council due to the scale of financial investment required. While some measures will provide a direct financial investment, many may not. Where projects do not meet the requirements to be included within the Council’s budget setting process, grant funding opportunities will be explored.

#### 5.3.2: Focus on Organisational Governance Emissions Reduction

As a community leader the Council will set an example and set high standards in reducing carbon emissions to net zero by 2030. Not only exclusively on its own estate but also across its policies, service delivery and investment decisions.

#### 5.3.3: Focus on Transport, Active Travel, and Air Quality

Active travel offers the opportunity to minimise carbon emissions however it also presents several co-benefits such as reduced congestion, improved local air quality and promotes health and

wellbeing within Guildford's communities. However, as Guildford is not the responsible transport authority within our Borough, GBC is restricted as to how much we are able to deliver.

#### 5.3.4: Focus on Renewable Energy Generation

Renewable energy generation is an essential element of achieving net zero. To reduce carbon emissions, decreasing the reliance on fossil fuels is vital. Renewable energy generation through domestic installations and community energy schemes will provide the opportunity to create a clean, sustainable, and resilient local energy supply. Identifying opportunities for large-scale schemes within the borough or wider community will be key.

#### 5.3.5: Focus on the Built Environment

Guildford has a growing population of approximately 150,400 (BEIS, 2020), and is predicted to grow to 167,126 by 2034. (Local Plan, 2015 – 2034) The housing requirement for Guildford is for at least 10,678 new homes with 562 dwellings being built per annum over the local plan period (2015 – 2034).

We are the second largest borough in the county in terms of area, covering approximately 270 square kilometres (*Local Plan, 2015 – 2034*)

Our borough has a particularly rich and varied architectural heritage with 1,200 listed buildings and 38 conservation areas. It contains 151 designated Areas of High Archaeological Potential, 37 County Sites of Archaeological Importance, 35 scheduled monuments and 10 registered parks/gardens. The borough is also home to a series of great historic country houses set within designed landscape and parklands. (*Local Plan, 2015 – 2034*)

Pressure on existing infrastructure and additional stress caused by planned growth must be addressed if we are to maintain and enhance the borough's prosperity and quality of life. Many people are attracted to Guildford by the quality of life and environment. This places a high demand on school places and access to amenities such as open spaces. The local and strategic road networks, rail network and local facilities in village settlements are also facing increasing pressure. (*Local Plan, 2015 – 2034*)

#### 5.3.6: Focus on Waste and Resources

Guildford is one of 11 Districts and Boroughs who are part of the Surrey Environmental Partnership (SEP) with Surrey County Council. Guildford is a waste collection authority and Surrey are responsible for the waste disposal. Targets for recycling and waste to landfill are set by the SEP and the Surrey Waste Local Plan (2019-2033) sets out how and where different types of waste will be managed in the future.

This action plan promotes the key principles of the waste hierarchy in reducing the amount of waste being sent to landfill. Like the steps set out within the energy hierarchy, the waste hierarchy seeks to:

- **Step one:** Eliminate waste by reducing single use plastic use, excess packaging, and careful planning in the use of materials and products. Reducing consumerism through repairing goods and promoting the use of second-hand items.
- **Step two:** Reusing waste materials by finding alternative uses for products or items that would usually be thrown away.
- **Step 3:** Recycling/composting waste materials.
- **Step four:** Recover energy from waste, using waste instead of fossil fuels for energy generation to recover the energy embedding within it.

- **Step five:** As a last resort, disposal of waste at landfill sites.

#### 5.3.7: Focus on Land Use and Adaptation/Green and Blue infrastructure

Offsetting by sequestering carbon (removing and storing carbon from the atmosphere) be essential to achieving net zero by 2030. Many additional benefits can be gained through the application of a comprehensive land management policy, including a reduction in food miles through the promotion of locally grown food, increasing biodiversity through improving land and woodland management, and reducing damage to infrastructure through improving natural flood defences.

#### 5.3.8: Focus on Improving Communications and Digital Connectivity

While GBC has the opportunity and ambition to reduce carbon emissions to net zero within our organisation, the Council is not responsible for the majority of carbon emissions across the borough. For the borough to achieve net zero and to make real progress towards positive change, GBC will need to increase awareness of climate change issues through engaging those who live, work, and visit Guildford. We need to engage all aspects of the community and foster partnerships within our communities to work together towards a sustainable future.

Digital connectivity has a vital role to play in reducing the need to travel and influencing behaviour change by making more information available. Guildford Borough Council needs to encourage and support ongoing digital transformation, foster innovation, and become an attractive location for the development of sustainable technology.

#### 5.3.9: Focus on Supporting Borough-Wide Initiatives

Guildford Borough Council recognises that while it is only responsible for approximately 1% of the borough's emissions, it has an important leadership role to play to enable, encourage and support climate change initiatives throughout both the borough and wider community.

Signposting to existing environmental groups will foster effective working partnerships, allow for the sharing of resources, and inform the wider community of funding opportunities.

### 5.4: Actions

This Action Plan is intended to be a *'living document'*, and to evolve as new opportunities and information arise. The actions contained within the plan seek to provide the foundation to the pathway to net-zero, both within GBC activities and within the wider boroughs. Several actions contained within **Appendix 1.0** are to be reviewed, feasibility studies conducted, and further developed into prioritised programmes and implemented where appropriate.

**For a list of actions please see Appendix 1.0 attached to this document.**

## 6.0: Embedding Change

Guildford Borough Council is committed to reducing carbon emissions within the wider setting through leading by example. Having recognised that our response to climate change is a key priority for GBC, we have embedded the key priorities of the Climate Emergency within all of GBC's ongoing works.

### 6.1: Policies and Strategies relevant to the Action Plan

The Climate Change Action Plan is designed to link to and compliment many other existing policies and strategies, both within Guildford Borough Council and the wider County. At the time of writing, these include:

- The Local Plan,
- The Corporate Plan 2021 - 2025
- Planning Policy,
- Climate Change, Sustainable Design, Construction and Energy SPD
- Air Quality Action Plan,
- Shaping Guildford's Future,
- GBC Procurement Plan,
- Economic Development Strategy,
- The Local Nature Recovery Strategy,
- Surrey County Council Greener Futures,
- Guildford Local Cycling and Walking Infrastructure Plan,

## 7.0: Finance and Resources

Achieving net zero by Guildford Borough Council has been adopted within our corporate policy, as is ensuring Guildford is financially sound with infrastructure and services fit for the future. This plan will require significant financial investment. However, in many cases there will be an associated return of investment from energy savings.

To achieve the objectives of this action plan, the council will:

- Consider identified projects every year to coincide with capital budget setting. While there are financial constraints, the council has developed a prioritisation methodology which covers a number of criteria including any ongoing revenue costs or savings, deliverability, the extent to which the proposed scheme meets the council's priorities and the environmental credentials for the project. Invest to save capital projects are encouraged and supported particularly when achieving a revenue payback of 5 years or less.
- Use of Power Purchase Agreements (PPAs) to fix the council's long-term energy costs whilst supporting community energy that retains wealth in the borough and generates renewable, net zero carbon power generation
- Continue to look for external sources of funding as they become available to supplement the cost of projects. This often requires GBC to ensure that projects are at a stage where funding can be applied (project ready).

### 7.1: Cost Projection

Based on the trajectory analysis carried out by APSE Energy in July 2022, the indicative forecast of the cost of achieving net zero across the Council for Scope 1 and 2 emissions is £58.6 million and the total annual savings achieved by 2030 would be equivalent of £962,900 per year. It is estimated that approximately £32 million is required for the installation of air source heat pumps (ASHP) in all council estate, developing 5 MW of solar generation, and to implement a tree planting scheme. £26.6 million will be required to upgrade GBC's fleet to electric, with much of that cost being put towards upgrading 46 refuse lorries.

While this cost is significant, it is noted the information used to estimate the capital cost is not complete and that a separate exercise should take place to review all existing council owned vehicles and assets to provide a clear plan of what interventions can be provided, their capital costs, funding opportunities and the cost/carbon savings.

**Table 1: Forecast Capital Cost and Financial Savings from Initiatives including ASHP (Guildford Borough Council Net Zero Carbon Emissions Trajectory, APSE, July 2022)**

<b>Forecast Capital Cost and Financial Savings from Initiatives including ASHP Intervention</b>	<b>Cost of all interventions</b>	<b>Accumulative cost saving up to 2030</b>	<b>Total annual saving of all interventions in the year 2030</b>	<b>Accumulative CO2e Savings by 2030</b>	<b>Accumulative £/CO2e Savings by 2030</b>
Transition from Gas Boilers to ASHP	£25,803,900	£2,658,800	£745,490	13,238	£1,949
Transition to EV Accumulative Savings	£26,599,500	£96,200	£33,302	5,234	£5,082
Electricity Saving from energy efficiency	£1,185,700	£890,600	£241,574	12,260	£97
Electricity Increase for transition to ASHP	£0	-£1,641,900	-£445,395	-821	N/A
Building PV (500kWp by 2030)	£450,000	£255,500	£69,318	128	£3,524
Land Based PV (5MWp by 2030)	£4,500,000	£1,115,300	£318,613	11,567	£389
Tree Planting	£12,201	N/A	N/A	1,791	£7
<b>Total</b>	<b>£58,551,301</b>	<b>£3,374,500</b>	<b>£962,900</b>	<b>43,396</b>	<b>£11,048</b>

## 8.0: Programme Management

To succeed in achieving carbon neutrality it is important to demonstrate leadership at the highest level. Good programme governance is key to achieving net zero in Guildford and therefore GBC have put in place the following governance structure to maintain a high level of commitment and management of the climate change programme.

### 8.1: Executive Committee

The Executive will be responsible for the delivery of the action plan, making key decisions to enable progress and to report to Full Council.

## 8.2: Climate Change Board

A Climate Change Board (CCB) has been established to have scrutinising role, tracking and monitoring progress of the Climate Change Action Plan. The CCB will draw on the expertise of the advisory members to update and review the Action Plan and to make recommendations to the Executive regarding opportunities.

## 8.3: Climate Change Response Officers Group

A Climate Change Response Officers Group is to be established from the individual project owners that are responsible for the delivery of the projects within the action plan. The CCRO Group will be responsible for collating progress reports, to share opportunities and challenges, and to offer support and shared resources for inter-departmental projects.

## 8.4: Annual Progress, Monitoring, and Reporting

This action plan is intended to be a live document and will be updated frequently as new information and opportunities become available.

The CCB have suggested that reports are submitted to full council every 6 months for at least 2 years and that climate change should be a standing agenda item for Executive. Action Plan to be revised every two years to allow project completion and development.

## 9.0: Conclusion

Governments around the world have recognised that global climates are changing. The change is being driven by an increase global average temperature caused by the amount of carbon being released into the atmosphere through human activity. To reduce the severity of climate change, many national governments have agreed to curb carbon emissions to prevent a 2°C average temperature rise.

In 2019 Guildford Borough Council declared a climate emergency and committed to reducing their Scope 1 and 2 emissions to net zero by 2030. GBC also recognised the importance of biodiversity and improving air quality within the declaration.

Studies have shown that GBC are directly responsible for 1% of carbon emissions within the borough, of which, Scope 1 and 2 emissions make up a significant proportion of the total emissions. GBC look to assume a leadership role within the community to support action in reducing the remaining 99% outside of GBC control, in line with national government ambitions of achieving net-zero by 2050.

The actions contained within Appendix 1.0 are set to be reviewed frequently. Programmes are to be developed based on feasibility studies and the document is to be updated regularly to ensure that the actions remain current and relevant.

An indicative figure of £58.6 Million has been estimated as the cost to achieve net-zero by 2030 from GBC emissions. This figure does not provide any context as to how the programmes are to be funded, either by GBC directly, through government grants, or by other available funding streams. The figure does not account for the development of technology or new policies and only focuses on a small number of potential solutions in achieving net-zero. Therefore, the figure should be viewed only as the potential cost.

Management programmes will be applied to oversee the implementation of the action plan and regular reporting will ensure that targets are realised.

## 10.0: Contact Details

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Organisational Development

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## 11.0: Appendix 1.0 - Climate Change Action Plan Actions

<b>Key:</b>									
Timescales		Council's role		Indicative Costs		Carbon Impact		Co-Benefits	
S	Short - < 1year	D	Deliver	£	Low - £0 - £50k	L	Low - <1% reduction in council emissions	G	Local, open, participative government
M	Medium – 2023 to 2025	E	Enable and facilitate	££	Medium - £50 - £250k	M	Medium – 2-5% reduction in council emissions	E	Supporting a strong, resilient local economy
L	Long – 2025 to 2030	S	Support and encourage	£££	High - £250k - £1M	H	High – 5-10% reduction in council emissions	H	Good quality housing
O	Ongoing	L	Lobby	££££	Very High - £1M +	NQ	Not yet quantified	P	Effective strategic planning and development management
				NQ	Not yet quantified			W	Improvements to health, wellbeing, and biodiversity

Key focus area	No	Actions	Sub-Action No	Sub- Actions	Timescale	Council's role	Indicative costs	Carbon impact	Co-benefits
Climate Emergency Funding	1.1	Develop budget for Climate Change funding			O	D	££	NQ	P
	1.2	Ensure that projects are identified prior to funding becoming available. Tie in with 4.2			O	D	£	NQ	P



			1.2.1	Develop list of available and planned available funding and list the criteria for a successful bid.	O	D	£	NQ	P
	1.3	Explore Council Fund Bidding officer post			S	D	£	NQ	P
	1.4	Seek funding opportunities which support emissions reduction across Guildford and support delivery of actions within the Climate Change Action Plan			O	S	£	NQ	P
	1.5	Explore opportunities for securing joint funding opportunities with SCC and other boroughs			O	S	£	NQ	P
Organisational Governance Emissions Reduction	2.1	Develop a comprehensive energy monitoring and targeting programme to understand the council's current carbon/energy performance and identify areas for reduction.			S	D	£	L	P
			2.1.1	Develop procedure for gathering and storing data as it is made available using Systemslink to store all the Scope 1 & 2 data.	S	D	£	L	P
			2.1.2	Consider a collaboration with an energy monitoring organisation such as GridEdge.	S	D	£	L	
			2.1.3	Appoint Energy Strategy Officer	S	D	£	L	P
			2.1.4	Investigate feasibility of an officer led "Emissions Reporting working group" to ensure collaboration across the services on reporting emissions data in a timely manner.	S	D	£	L	G, P
			2.1.5	Investigate Utilities Officer Post	S	D	£	L	P

			2.1.6	Continue to report annual emissions to Executive	O	D	£	L	
			2.1.7	Map potential emissions reduction pathways against set budget periods for the Council to achieve net zero carbon emissions by 2030	S	D	£	L	<b>P</b>
	2.2	Undertake an assessment of GBC Scope 3 emissions and use this to inform future procurement decision making processes.			S	D	£	L	<b>P</b>
			2.2.1	Commission a report to investigate GBC's Scope 3 emissions and assess the carbon impact of current contracts	S	D	£	L	
	2.3	Develop an LGA guidance document for reporting on supply chain emissions associated with Council operations			S	D	£	L	<b>G, E</b>
			2.3.1	Develop policy and procedure to gather Scope 3 data from third parties and incorporate these policies and procedures within the procurement process and future contracts.	S	D	£	L	<b>P</b>
	2.4	Adopt a low carbon procurement framework			M	D	£	L	
			2.4.1	Modify procurement policies to reflect the promotion of sustainable and ethical practices in accordance with the Scope 3 assessment.	M	D	£	L	<b>G, E</b>
			2.4.2	Undertake targeted engagement with key contractors and market foster collaboration	M	D	£	L	

			2.4.3	Consider the feasibility of applying a scoring mechanism that favours emission reduction	M	D	£	L	
			2.4.4	Develop a carbon reduction statement within tender documents provided to suppliers to ensure they prioritise emissions reduction, sustainability and environmental considerations within their proposals and that suppliers provide a sustainability statement with all tenders	M	D	£	L	<b>G, P</b>
			2.4.5	Ensure tender documents include a section on supplier commitment to reduce single use plastics.	M	D	£	L	<b>G, W</b>
			2.4.6	Introduce a social value policy	M	D	£	L	<b>W</b>
			2.4.7	Adopt joint SCC Procurement policy	O	S	£	L	<b>G</b>
	2.5	Encourage all existing contractors to reduce their carbon emissions from fuel consumption and to make explicit their goals for carbon reduction			S	S	£	L	<b>W</b>
	2.6	Continue to engage with SCC and other Surrey districts on joint carbon reduction opportunities.			S	S	£	L	<b>G</b>
			2.6.1	Continue to support Surrey County Council Greener Futures Climate Change Delivery Plan	S	S	£	L	<b>G, P</b>
			2.6.2	Continue to collaborate with Waverley Borough Council on Climate Change Matters	O	D	£	L	<b>G, P</b>
			2.6.3	Explore shared resources potential with Waverley and Surrey Councils	S	D	£	L	<b>G, P</b>
	2.7	Review organisational paper use			S	D	£	L	<b>G</b>

			2.7.1	Identify and resolve any barriers to the use of existing Mod.Gov use by all Councillors and officers to access and use all committee papers electronically.	S	D	£	L	<b>G</b>
			2.7.2	Phase out printed agendas and reports.	M	D	£	L	<b>G</b>
			2.7.3	Investigate paperless alternatives such as tablets.	M	D	£	L	<b>G</b>
			2.7.4	Identify and resolve accessibility issues through an Equality Impact Assessment	S	D	£	L	<b>G</b>
			2.7.5	Review paper purchasing and move to a more sustainable supplier.	S	D	£	L	
			2.7.6	Continue the delivery of digital transformation projects to enable increased access to online services to reduce printing.	M	D	££	L	
			2.7.8	Develop policy for the printing of large documents in the most efficient way possible	S	D	££	L	
			2.7.9	Develop feasibility study in reducing the number of multifunctional Devices (MFD's (printers)) at Millmead Offices to reflect the reduction of office-based staff	S	D	£	L	
	2.8	Continue realisation assessment of Millmead House. Prioritise moving Services to a Carbon Neutral base of operations.			M	D	££££	M	<b>E, P</b>
	2.9	Deliver a Climate Change Communications Plan to improve our approach to climate change communications and community engagement			S	D	£	L	<b>G, P</b>
			2.9.1	CCB to sign off on the Climate Change Communications Plan	S	D	£	L	

			2.9.2	Investigate Climate Change Engagement Post	S	D	£	L	<b>G</b>
	2.10	Collaborate with Surrey County Council to work towards a portfolio of responsible pension investments			M	L	£	L	
	2.11	Adopt a Climate Change Adaptation and resilience Plan			M	D	£	L	<b>E, H, P, W</b>
			2.11.1	Continue to progress 'Shaping Guildford's Future' programme to develop GBC's Climate Adaptation and Resilience measures.	M	D	££££	M	<b>G, E, P, W</b>
			2.11.2	Commission a report into the demographic of the borough to identify stakeholders in high risk of Climate Change harm.		D	£	L	<b>H, W</b>
	2.12	Ensure that Climate Change is incorporated within a future refreshed Council Plan and all other relevant council policies, strategies, plans and contracts			S	D	£	L	<b>G, P</b>
			2.12.1	Climate Change to be considered a Core Council Value and is to be included in internal service plans.	S	D	£	L	<b>G, P</b>
			2.12.2	All council decision reports to include a carbon calculation and subsequent passage on the impact of any change to council emissions. Additional opportunities for carbon reduction or wider environmental opportunities can be explored within the report.	S	D	£	L	<b>G, P</b>
	2.13	Review policies for air quality, transport, waste management and sustainability at events and festivals			S	D	£	L	<b>W</b>

	2.14	Identify training needs for staff, councillors and other stakeholders on the climate emergency and the impact of decisions on carbon emissions			M	D	£	L	
			2.14.1	Provide carbon literacy/climate change training to staff. Consider base level training for all staff and more targeted training for decision makers	M	D	£	L	
			2.14.2	Identify opportunities to include carbon management to existing training courses.	M	D	£	L	
			2.14.3	Review climate change training needs for all new staff, newly appointed decision makers and newly elected Councillors	M	D	£	L	
	2.15	Explore opportunities for work placements and internship opportunities to support the delivery and development of the climate change action plan.			S	D	£	L	<b>E</b>
	2.16	Review the council's staff working at home policy, business travel mileage policy, essential car user policy and staff parking provision			M	D	£	L	
			2.16.1	Continue the delivery of digital transformation projects to enable increased access to online services to reduce the need for travel.	M	D	£	L	<b>W</b>
			2.16.2	Review essential car user policy and assess the compatibility with carbon reduction measures. Reflect the use of EV, stop rewarding larger engine sizes.	S	D	£	L	
			2.16.3	Explore improvements into council ICT for home working and distance learning	M	D	£	L	

	2.17	Develop a Heatwave and Cold Weather Plan to be reviewed annually			O	D	£	L	<b>E, H, W</b>
	2.18	Develop an emissions reduction plan for Guildford Borough			O	D	£	L	
			2.18.1	Commission a carbon footprint assessment for Guildford Borough	O	D	£	L	<b>P</b>
			2.18.2	Define emissions trajectory for the borough towards 2030 and beyond	M	D	£	L	<b>P</b>
			2.18.3	Define emissions trajectory scenarios against national 2050 target	M	D	£	L	
Transport, Active Travel, and air quality	3.1	Review GBCs grey fleet and improve the provision of ULEV pool cars for business use.			M	D	£	L	
	3.2	Develop a staff travel plan which compliments the Council Transport Policy. The Plan will consider a variety of travel options for staff including car clubs, ULEV pool cars and active travel incentives.			S	D	£	L	
			3.2.1	Install EV charging and bike storage to enable staff to switch to active travel and sustainable business travel and commuting	O	D	£	L	<b>W</b>
			3.2.2	Develop 'EasitGUILDFORD' travel scheme	S	D	£	L	<b>E</b>
			3.2.3	Develop annual staff travel survey to establish baseline data to understand barriers towards a shift towards more sustainable modes of transport.	S	D	£	L	
			3.2.4	Explore options to support more sustainable travel incentives including staff cycle hire/purchase schemes.	S	D	£	L	<b>W</b>

	3.3	Develop EV strategy and delivery plan			O	D	£	L	<b>G, P</b>
			3.3.1	In partnership with SCC continue with the installation of on street EV charging points. Promote the chargers once installed	O	D	NQ	NQ	<b>W</b>
			3.3.2	Phase II of the EV charger roll out in Guildford car parks to implement a robust EV charging network and encourage the switch to EV.	O	E	NQ	NQ	<b>W</b>
			3.3.3	Implement the DEFRA funded trial programme for EV taxis as detailed within GBCs Air Quality Action Plan.	M	D	NQ	NQ	<b>E</b>
			3.3.4	Investigate updating taxi Licensing conditions with new emissions standards	M	D	£	L	<b>E</b>
			3.3.5	Mapping project of EV charging potential include grid constraints	M	S	£	L	<b>P</b>
			3.3.6	Feasibility study for dedicated webpage on GBC website to help inform, identify demand, requested locations and other feedback for EV charging.	S	D	£	L	<b>G</b>
			3.3.7	Work with GBC private and public sector partners to identify EV charging point key locations	M	E	£	NQ	<b>G</b>
			3.3.8	Integrate EV charging infrastructure into new developments.	M	L	£	NQ	<b>E, W</b>
	3.4	Develop a cycle strategy in partnership with Surrey County Council as set out in the draft SCC Local Transport Plan.			L	S	£	NQ	<b>W</b>
			3.4.1	Support SCC to develop and implement a Guildford Local Cycling and Walking Infrastructure Plan for a network of walking and cycling routes across	M	S	£	NQ	<b>P, W</b>



				Guildford Borough, ensuring a high quality network of routes which accommodate a variety of users					
			3.4.2	Work with stakeholders and partners to provide secure cycle parking, bike hire and promotion of electric cargo bikes	M	E	££	NQ	<b>W</b>
	3.5	Phase in ULEV into GBC existing fleet			O	D	££££	H	<b>W</b>
			3.5.1	Implement EV charging, fleet replacement and management	O	D	££££	H	<b>W</b>
			3.5.2	Phase in Electric light commercial vehicles	O	D	£££	M	<b>W</b>
			3.5.3	Phase in Electric Heavy Commercial Vehicles	O	D	£££	M	<b>W</b>
			3.5.4	Explore the feasibility and benefits of providing internal eco driving courses for staff.	S	D	£	L	
			3.5.5	Explore the feasibility and benefits of setting up a local fleet recognition scheme.	S	E	£	L	
	3.6	Advocate the development of a mobility service app in collaboration with SCC and other Boroughs.			M	S	NQ	NQ	<b>E, W</b>
	3.7	Support SCC in implementing the adopted Bus Service Improvement Plan			O	S	£	NQ	
	3.8	Investigate options for car demand management such as emission-based charging			S	S	£	NQ	
	3.9	Work with stakeholders and partners to expand and promote the use of ULEV and car clubs			O	S	£	NQ	
	3.10	Investigate engagement opportunities to promote active and sustainable transport			S	D	NQ	NQ	<b>G, W</b>

			3.10.1	Car free day scheduled for September 25 <sup>th</sup> , 2022. Look to make an annual event	S	D	£	NQ	<b>G, E, W</b>
	3.11	Investigate options for traffic re-routing and delivery hubs to encourage lower freight, including 'last mile' delivery options			M	D	£	NQ	<b>E</b>
	3.12	Investigate feasibility of introducing an 'eco-levy (pay as you drive) and/or a Workplace Parking Levy.			S	S	£	NQ	
	3.13	Support SCC in the implementation of the Rail Strategy			O	S	£	NQ	
	3.14	Investigate travel planning opportunities, covering workplace, schools, and other educational settings, securing developer funding where available.			M	D	£	NQ	
	3.15	Review transport provision policies with private transport sector, including school transport providers, to incentivise the switch to ULEV.			M	D	£	NQ	
	3.16	Promote and facilitate walk and/or cycle to school initiatives, including local and national focus events.			M	D	£	NQ	<b>W</b>
	3.17	Work with local universities and colleges to identify and promote safe walking/cycle routes			M	E	£	NQ	<b>W</b>
	3.18	Undertake gap analysis on river accessibility, look to unlock walking/cycling routes.			L	D	£	NQ	<b>W</b>
	3.19	Continue to deliver the Air Quality Action Plan.			O	D	£££	NQ	<b>G, E, P, W</b>
	3.20	Investigate feasibility of engaging current partners and contractors			S	S	£	NQ	

		and encourage reducing fleet emissions							
			3.20.1	Consider a procurement clause for commitment to reducing fleet emissions. Tie in with 2.4.4.	M	D	£	NQ	
Renewable energy generation	4.1	Develop Renewable Energy Implementation Programme to build on the 2015 renewable energy report.			S	D	£	H	<b>G, E, P</b>
			4.1.1	High level geospatial mapping of building energy performance and sustainable energy potential.	S	D	£	L	
			4.1.2	Mapping of energy network constraints.	S	D	£	L	
			4.1.3	Solar study on feasibility and viability for standalone solar facilities and potential rooftop scheme at Slyfield Industrial Estate	S	D	£	L	
			4.1.4	Map potential for standalone renewable energy with specific GBC owned site recommendations (Hydroelectricity, solar, wind, heat pumps, etc)	S	D	£	L	
			4.1.5	Collaborate with Planning to secure Pre-application advice regarding any identified sites for GBC controlled renewable energy	S	D	££	L	<b>P</b>
			4.1.6	Undertake feasibility study for instillation of solar PV at GBC car parks, include solar canopies and EV charging.	S	D	£	L	
			4.1.7	Feasibility study of installing Solar PV on all GBC owned buildings	S	D	£	L	
			4.1.8	Work through GBC mandate process to develop renewable energy sites.	M	D	£	L	
			4.1.9	Undertake a landfill review to establish the potential for solar PV	M	D	£	L	

	4.2	Promote and provide information on renewable technologies on GBC website (Heat Pumps, Solar, etc.)			S	D	£	NQ	
	4.3	Collaborate with SCC, Waverley, and other boroughs to investigate joint renewable energy projects			O	E	£	NQ	<b>G, P</b>
	4.4	Investigate the available carbon offset from renewable energy projects			M	D	£	L	<b>P</b>
	4.5	River heat source mapping project to build on the 2015 renewable energy report.			M	D	£	L	<b>P</b>
	4.6	Feasibility study for larger scale renewable energy production within Guildford, to build on the 2015 renewable energy report.			M	D	£	L	<b>P</b>
			4.6.1	Investigate potential for larger scale solar PV generation through acquisition from a third party	M	D	£	L	<b>P</b>
			4.6.2	Consider purchasing land for solar and energy production	L	D	£	L	
			4.6.3	Engage with Guildford's largest businesses and organisations to work jointly on renewable energy initiatives.	M	D	£	L	<b>E</b>
			4.6.4	Explore opportunities to consider installing solar panels on commercial buildings and selling power generated from the panels.	M	D	£	NQ	<b>E, P</b>
Built Environment	5.1	Assess GBC assets for additional carbon reduction opportunities			M	D	£	NQ	<b>P</b>
	5.2	Develop a programme for retrofitting GBC estate and procurement arrangements –			M	D	££££	H	<b>H, P</b>

		potential carbon reduction measures to be assessed on a case-by-case basis. Feed into Action 2.1.7							
			5.2.1	Complete an Energy Performance Survey of GBC assets under direct control	S	D	££	L	<b>P</b>
			5.2.2	Complete an Energy Performance Survey of all GBC tenanted assets	M	D	££	L	<b>P</b>
			5.2.3	Build an Energy Performance Baseline	M	D	£	L	<b>P</b>
			5.2.4	Develop programme of works to replace all lighting with LED lights.	M	D	NQ	NQ	
			5.2.5	Building insulation programme of works to be developed for all GBC housing stock	L	D	NQ	NQ	<b>H</b>
			5.2.6	Boiler replacement programme to be developed for all GBC assets	L	D	NQ	NQ	<b>H, P, W</b>
			5.2.7	Develop register of all GBC owned property to include 'end of life' assessments for all plant.	S	D	£	L	<b>P</b>
			5.2.8	Identify and develop projects for replacement/retrofit of GBC owned plant to ensure that projects are 'bid ready' when funding becomes available.	S	D	£	L	<b>P</b>
			5.2.9	Continue with estate rationalisation	O	D	NQ	NQ	
			5.2.9	Introduce Buildings Management Systems – Heating Controls	S	D	NQ	H	
			5.2.10	Introduce Buildings Management Systems – Control Optimisation – Integrative Controls to monitor energy usage in council buildings and optimisation of spaces.	S	D	NQ	H	
			5.2.11	Introduce Buildings Management Systems – Introduce energy efficient appliances	S	D	NQ	H	

			5.2.12	Introduce Buildings Management Systems - Water usage within buildings to be monitored and reduced.	S	D	NQ	L	
				Identify and deliver priority actions for key buildings in a phased programme	M	D	NQ	H	
	5.3	Provide guidance and information regarding sustainable practices to encourage the reduction of environmental impact to all development site applications			O	D	£	NQ	<b>G, E, H, P</b>
			5.3.1	Provide clear carbon sustainability targets at the design stage	O	D	£	NQ	<b>G, H, P</b>
			5.3.2	Encourage developers to explore innovative construction methods and materials used in building schemes.	O	S	£	NQ	<b>G, H,</b>
	5.4	Encourage development site applications include potential for low carbon energy including heat networks			O	S	£	NQ	<b>P</b>
	5.5	Map viable local energy schemes and potential impact on emissions trajectory across the borough			S	D	£	NQ	<b>P</b>
	5.6	Develop a programme to encourage and facilitate the retrofitting of energy efficiency schemes across the borough			M	D	NQ	NQ	<b>H, P, W</b>
			5.6.1	Continue to support and promote 'Green Jump/Action Surrey' and other funding schemes providing grants for residents for energy efficiency home improvements.	O	S	£	NQ	<b>H, P, W</b>
			5.6.2	Continue to support and promote 'LoCASE' grants to SMEs for the installation of energy efficiency solutions and advice.	S	S	£	NQ	<b>E, P, W</b>

			5.6.3	Develop replacement scheme for LoCASE with SCC	S	S	NQ	NQ	<b>E, P</b>
	5.7	Develop mapping of building energy performance and sustainable energy potential across the borough			M	D	£	NQ	<b>P</b>
	5.8	Develop sustainable energy projects for GBC owned assets			M	D	NQ	NQ	<b>H, P</b>
			5.8.1	Implementation of rooftop solar PV on GBC owned assets. Tie in with 3.1.7	S	D	NQ	M	
			5.8.2	Hydro-electric private wire review	S	D	£	L	
			5.8.3	Mapping and feasibility study to be completed for the installation of heat pumps at GBC owned assets.	M	D	£	NQ	
	5.9	Energy efficiency improvements to the Lido Leisure Pool – Pool cover to be installed to reduce heating costs			S	D	££	NQ	
	5.10	Spectrum Leisure Centre – Decarbonisation options to be explored and programme developed to reduce carbon emissions from GBC asset			S	D	££££	H	<b>P, W</b>
			5.10.1	Explore all options for Spectrum through GBC mandate process	S	D	£	L	
			5.10.2	Develop Energy Performance Contract when procuring new Spectrum management contract	M	D	NQ	NQ	<b>P</b>
	5.11	Continue with streetlamp replacement with LED lamps			O	D	NQ	NQ	
	5.12	Move GBC energy procurement over to Green Tariff/Green Basket solutions			S	D	£33K allocated	H	
	5.13	Explore potential for GBC new builds to attain Passivhaus standards			O	D	£	NQ	<b>E, H, P</b>

	5.14	Collaborate with Housing contractors to modify response times or batching of work in areas within specific days to reduce travel costs.			S	E	£	NQ	
	5.15	Investigate and implement opportunities for community energy projects in conjunction with other stakeholders, including not-for-profit organisations.			M	S	NQ	NQ	<b>G, S, H, P, W</b>
	5.16	Develop plans for alternatives to individual gas boilers in new and existing Council homes			M	D	NQ	H	<b>H, P, W</b>
	5.17	Evaluate stock condition data held to ensure it is robust enough to inform plans for energy efficiency. Take remedial action on identified shortfalls.			S	D	£	L	
	5.18	Undertake a stock condition/energy efficiency survey of all senior living schemes to inform an asset management plan for the schemes			M	D	NQ	NQ	<b>H, P, W</b>
	5.19	Commission desktop modelling scheme on current private stock conditions to identify areas of interest for planned programme of works to meet the carbon neutral commitment.			M	D	£	L	
	5.20	Investigate enforcement of minimum efficiency standards for the private rented sector			S	D	£	NQ	<b>H</b>



	5.21	Continue with 'Shaping Guildford's Future' Programme to develop and implement a pipeline of place-making projects			O	D	NQ	NQ	<b>G, E, H, P, W</b>
	5.22	Continue to implement and update the Local Flood Risk Management Strategy and Action Plan			O	D	£	NQ	<b>P, W</b>
	5.23	Explore installing/improving shower and changing facilities within Council Buildings to promote active travel to work.			S	D	£	NQ	<b>W</b>
Waste and Resources	6.1	Continue to develop Waste and Recycling Initiatives			O	D	NQ	NQ	<b>P</b>
	6.2	Investigate community composting schemes to reduce garden waste volumes			M	S	£	NQ	<b>G</b>
	6.3	Continue to promote the textile and WEEE kerbside collection.			M	D	£	NQ	
	6.4	Develop a programme to work towards becoming a zero-waste borough encouraging waste reduction and reuse and recycling, for domestic, commercial, and industrial waste.			M	D	NQ	NQ	<b>E</b>
	6.5	Explore GBC controlled waste streams to identify opportunities for further waste reduction through the waste hierarchy.			M	D	£	NQ	<b>P</b>
	6.6	Establish a working group to conduct an audit of avoidable single use plastic across GBC owned buildings and working practices. Develop			S	D	£	L	

		timeline to achieve becoming a single use plastic free organisation.							
	6.7	Continue to support and increase regular community led litter picks across Guildford.			O	S	£	NQ	<b>G, W</b>
	6.8	Work with stakeholders and partners to develop innovative measures to reduce the amount of plastic waste across Guildford.			O	S	NQ	NQ	<b>G, W</b>
	6.9	Continue to work with stakeholders and partners to develop clean-up programmes of riparian and marine plastic pollution.			O	D	NQ	NQ	<b>W</b>
	6.10	Investigate sustainability issues associated with food production, food waste and food procurement.			M	D	£	NQ	<b>E, W</b>
	6.11	Review council commercial waste management practices and identify opportunities for improvement			O	D	£	NQ	
			6.11.1	Audit council waste management arrangements	O	D	£	NQ	
			6.11.2	Audit council waste arisings	O	D	£	NQ	
			6.11.3	Develop waste reduction programme for council operations	M	D	NQ	NQ	
	6.12	Continue to investigate innovative solutions to reduce the use of pesticides on council owned land.			S	D	£	NQ	<b>W</b>
	6.13	Work with SCC to make soil improver made from composting local food and green waste available to residents.			S	E	NQ	NQ	
	6.14	Support the implementation of the Extended Producer Responsibility			S	D	£	NQ	<b>E</b>

		(EPR) and promote to Guildford mail order and online businesses.							
	6.15	Develop waste communications plan			S	D	£	NQ	<b>G, P, W</b>
			6.15.1	Continue to work with stakeholders and partners to decrease the amount of household waste collected and to reduce levels of contamination in recycling streams.	S	D	NQ	NQ	<b>G</b>
			6.15.2	GBC website to link Waste and Climate Change webpages.	M	D	NQ	L	
			6.15.3	Continue to signpost residents to recycling facilities for products unable to be recycled at the correct methods for recycling batteries and electrical goods.	S	D	£	NQ	
			6.15.4	Household waste reduction and recycling campaign including educating Council tenants on need to reduce waste.	S	D	NQ	NQ	
			6.15.5	Promote season specific actions i.e., Halloween, Christmas etc.	S	D	£	NQ	
			6.15.6	Promotion of waste hierarchy – Refuse, Reduce, Reuse, Repurpose, Recycle.	S	D	£	NQ	
			6.15.7	Develop an education programme for families and communities to show how to reduce the amount of waste produced in daily lives.	S	D	NQ	NQ	
			6.15.8	Develop projects and networks to help facilitate sharing economy initiatives - Sustainable Cafes/Resource Libraries	M	D	£	NQ	
Land Use and Adaptation: the	7.1	Work with Parish and Town councils and relevant not-for-profit			M	E	NQ	NQ	<b>G, W</b>

green and blue infrastructure		organisations to encourage local food production via allotments and community farms							
			7.1.1	Secure new garden/allotment space to promote Grow Your Own initiatives and support community projects and activities	M	D	NQ	NQ	<b>G, W</b>
			7.1.2	Review of current allotment holding process to make better use of existing allotments	M	D	£	NQ	<b>W</b>
			7.1.3	Work with community partners, including housing, to develop more urban growing spaces, including edible trails and green walls	M	S	NQ	NQ	<b>W</b>
			7.1.4	Support education of stakeholders on how to design and cultivate urban growing spaces	M	S	NQ	NQ	<b>W</b>
	7.2	Investigate the opportunity to identify unused land that can be used for local food production.			M	D	£	NQ	<b>E, P, W</b>
	7.3	Collaborate with SCC and other boroughs to establish a badge system to identify food produced locally (less than 30 miles).			M	S	NQ	NQ	<b>G, E</b>
	7.4	Adopt or continue to support policies that enhance the natural environment such as: <ul style="list-style-type: none"> <li>Local Nature Recovery Strategy</li> <li>Tree and woodland management policy</li> </ul>			S	D	£	NQ	<b>G, E, P, W</b>
	7.5	Implement 'No Mow May' initiative and work with SCC to align biodiversity policies.			S	E	NQ	NQ	<b>G, W</b>

	7.6	Develop a Land Management Framework to ensure that multifunctional benefits are considered including carbon, biodiversity, and flood protection			S	S	NQ	NQ	<b>G, P, W</b>
	7.7	Working with SCC, implement the Environmental Land Management programmes from 2024 utilising funding from the Farming in Protected Landscapes Programme (in Surrey Hills and High Weald AONB)			M	S	NQ	NQ	<b>G, P, W</b>
	7.8	Manage GBC owned farms based on the principles set out in the Land Management Framework.			M	D	NQ	NQ	<b>E, W</b>
	7.9	Investigate the viability of producing Woodland Carbon Units (WCU) for others as well as meeting GBCs needs through tree planting and question if GBC should purchase WCU from others.			S	D	£	NQ	<b>P</b>
	7.10	Facilitate and support multiagency bids for flood alleviation schemes. Focus on utilising natural flood risk management lowering flood risk by planting trees and restoring marshland.			O	E	NQ	NQ	<b>G, E, P, W</b>
	7.11	Develop an evidence base on farming, food and drink, rural tourism and consider options to support rural development.			M	D	£	NQ	<b>G, E, P, W</b>
	7.12	Embed natural capital and land use opportunities designed to sequester			M	D	NQ	NQ	<b>G, P, W</b>

		carbon emissions into all appropriate infrastructure and development schemes, countryside estate management plans and land management policies							
			7.12.1	Commission a report to identify opportunities for natural solutions to climate change	S	D	£	L	<b>P, W</b>
			7.12.2	Identify habitat areas across Guildford for protection as carbon sinks and wildlife habitats.	S	D	£	NQ	<b>P, W</b>
	7.13	Continue to improve GBC's current 400ha of woodland and secure funding from the Forestry Commission to produce Forestry Stewardship Management Plans.			O	D	NQ	NQ	<b>P, W</b>
			7.13.1	Engage volunteer to carry out annual tree canopy coverage survey	S	E	£	NQ	<b>P, W</b>
			7.13.2	Develop a Tree Strategy and funded Plan with clear actions and targets	S	D	£	NQ	<b>P, W</b>
			7.13.3	Re-instate coppicing for biodiversity, timber, landscape, and carbon storage	M	D	NQ	NQ	<b>E, W</b>
	7.14	Continue with planned tree planting schemes and explore collaboration with SCC.			O	D	NQ	NQ	
	7.15	Develop investment vehicles in collaboration with SCC and other districts to fund carbon sequestration and natural capital schemes.			M	D	NQ	NQ	
	7.16	Commission a borough wide biodiversity assessment			S	D	£	NQ	<b>P, W</b>

	7.17	Collaborate with other organisations to support tree planting on private land.			S	E	NQ	NQ	<b>G, W</b>
	7.18	Explore bee friendly civic planting initiatives.			S	S	NQ	NQ	<b>W</b>
	7.19	Increase number of wildflower verges on Council owned land. Seek collaboration with other stakeholders to develop wildflower meadows.			M	D	NQ	NQ	<b>W</b>
	7.20	Develop a Green and Blue Infrastructure Framework and ensure that developer contribution funds are secured for its delivery.			S	D	NQ	NQ	<b>E, P, W</b>
	7.21	Continue to ensure that regeneration programmes include the creation of green open spaces providing benefits to both local community and wildlife.			M	E	NQ	NQ	<b>P, W</b>
	7.22	Continue to encourage developers to explore opportunities to provide planting and natural screening to mitigate against noise and air pollution and improve visual impact of developments.			M	S	NQ	NQ	<b>G, P, W</b>
	7.23	Develop a biodiversity action plan			S	D	NQ	NQ	<b>E, P, W</b>
	7.24	Explore Bee Friendly bus stops and pollinator friendly planting schemes in public places.			S	L	NQ	NQ	<b>E, W</b>
Communications	8.1	Develop and adopt a climate change communications plan			S	D	£	NQ	<b>G, P</b>

			8.1.1	Develop communications campaign plan for upcoming year	S	D	NQ	NQ	<b>G, P</b>
			8.1.2	Explore UNIS behavioural insight programme	S	D	NQ	NQ	
			8.1.3	Tailor communications to ensure the various demographics can access and understand the information provided.	S	D	NQ	NQ	<b>G, W</b>
	8.2	Develop plan to inform stakeholders of funding opportunities for the reduction of carbon emissions or other climate change concerns.			S	D	£	NQ	<b>G</b>
	8.3	Provide information regarding potential partnerships and low carbon incentive schemes			S	D	£	NQ	<b>G</b>
	8.4	Explore partnerships, Citizen Panels, and models for engagement through GBC mandate process			S	D	££	NQ	<b>G</b>
	8.5	Collaboration with SCC to develop County-wide communications plan			O	S	NQ	NQ	<b>G, P</b>
	8.6	Promote opportunities for sustainable transport use and local transport solutions. Including car share and ULEV solutions			M	S	NQ	NQ	<b>G</b>
	8.7	Develop actions to promote climate change action to local schools			M	S	£	NQ	<b>G, W</b>
			8.7.1	Provide support to schools to enable young people to act against climate change	S	S	£	NQ	<b>G, W</b>
			8.7.2	Provide climate change educational resources and help access funding for schools	M	D	£	NQ	<b>G</b>
			8.7.3	Engage with schools on how to improve their buildings/assets	M	S	NQ	NQ	<b>G</b>



	8.8	Reach out to other Public Sector organisations (Police, NHS, Etc.) to collaborate with the development and promotion of decarbonisation and other environmental initiatives			M	S	NQ	NQ	<b>G</b>
	8.9	Approach and secure Climate Champions from each service/department to aid with reporting and initiative promotion throughout GBC and encourage staff to reduce emissions in their workplace and more widely.			M	D	£	NQ	<b>G</b>
	8.10	Ensure that residents and communities are informed regarding the environmental impacts of developments during the development design process through Planning portal.			O	E	NQ	NQ	<b>G</b>
	8.11	Work with SCC to deliver future telecommunications upgrades			L	S	NQ	NQ	<b>E, P</b>
	8.12	Design and deliver the "Small Changes" public information campaign focusing on how individuals can reduce their carbon footprint			S	D	£	NQ	<b>G, W</b>
			8.12.1	Promote national days and inform how the community can support these.	O	D	£	NQ	<b>G, W</b>
			8.12.2	Continue to support Guildford ZERO and promote their waste reduction initiatives and carbon reduction schemes.	O	S	£	NQ	<b>G, E, W</b>
			8.12.3	Promote community initiatives that work towards carbon or waste reduction in Guildford	O	S	NQ	NQ	<b>G, E, W</b>

			8.12.4	Promote campaigns to reduce stakeholder's environmental impact.	O	D	NQ	NQ	<b>G</b>
	8.13	Support the reduction of single use plastics within our communities			S	S	NQ	NQ	<b>W</b>
			8.13.1	Promote Refill schemes to reduce the use of single use plastics. Offer residents and businesses access to water refill stations to help tackle single use packaging.	S	S	£	NQ	<b>W</b>
	8.14	Improve the way the Council communicates about discount and energy grant schemes available to businesses and residents including those who are in fuel poverty, on a low income and are vulnerable to living in a cold home due to age/health conditions.			S	D	£	NQ	<b>G, W</b>
			8.14.1	Encourage the uptake of national funding schemes such as the Home Upgrade Grant (HUG)	O	S	£	NQ	<b>H</b>
			8.14.2	All schemes that are promoted by the council will be reviewed by Trading Standards for legitimacy before proceeding	S	D	£	NQ	
			8.14.1	Encourage the uptake of national funding schemes such as proposed heat pump grants	S	S	£	NQ	<b>H</b>
	8.15	Website refresh to provide information and resources to stakeholders			M	D	£	NQ	<b>G</b>
	8.16	Explore opportunities for volunteer groups to help promote climate change messages/ assist local			S	E	£	NQ	<b>G</b>

		communities with environmental projects.							
	8.17	Regular progress updates will be provided on the Council's web pages, social media platforms, and newsletters			O	D	£	NQ	<b>G</b>
	8.18	Develop/deliver a behavioural change programme to staff and councillors to reduce carbon impact while working at home/the office and in home lives e.g., sustainable transport options, energy efficiency, procurement, and waste.			M	D	NQ	NQ	<b>G, W</b>
	8.19	Develop and deliver energy efficiency, renewable energy awareness campaign to private homeowners and landlords			S	D	£	NQ	<b>G, H</b>
	8.20	Carry out engagement activities that promote active and sustainable travel.			O	D	NQ	NQ	<b>G, W</b>
	8.21	Work with a network of community partners through the Greener Futures Climate Delivery Network and others to encourage participation and provide support for community-led activities.			S	S	NQ	NQ	<b>G</b>
	8.22	Develop and deliver an anti-idling campaign across Guildford			S	D	£	NQ	<b>G, W</b>
	8.23	Promote and support community energy projects by raising awareness of their existence with the wider community			O	S	NQ	NQ	<b>G</b>

	8.24	Develop an informal staff network to become conduits for future campaign information and share best practise.			S	D	£	NQ	<b>G</b>
	8.25	Develop climate change hub on GBC's web pages			M	D	£	NQ	<b>G</b>
	8.26	Promote and inform residents regarding woodburning stoves ensuring that only authorised fuels and approved appliances are used.			S	D	£	NQ	<b>W</b>
	8.27	Provide list of local and national funding schemes on GBC website, with links to relevant pages and aid in form filling if required.			S	D	£	NQ	<b>G</b>
	8.28	Continue to work with private sector to improve the digital connectivity across Guildford.			O	S	NQ	NQ	<b>G, E</b>
Borough-wide emissions reduction initiatives	9.1	Engage and work with local businesses within Guildford to work towards the net zero carbon target.			O	S	£	NQ	<b>G, E</b>
			9.1.1	Engage with local business owners through Guildford for Business network and residential homes/day care to develop awareness of the climate change action plan.	O	S	£	NQ	<b>G</b>
			9.1.2	Work with the Surrey Chamber of Commerce and the Sustainable Business Network to embed net zero carbon understanding in start-up business support, and other business training provided on Guildford's behalf.	O	S	NQ	NQ	<b>G</b>

			9.1.3	Develop and promote initiatives to encourage businesses to recycle commercial waste. Signpost businesses to Low Carbon initiatives such as Upcycle your waste project	S	D	NQ	NQ	<b>G, E</b>
			9.1.4	Facilitate and promote SME Grants for sustainable energy (LoCASE) to install energy efficiency measures and advice	O	E	£	NQ	<b>G, E</b>
			9.1.5	Explore initiatives to incentivise good practice among our businesses such as environmental excellence awards for organisations committed to sustainable ways of working, leading in environmental best practice, and working towards net zero carbon targets	S	S	NQ	NQ	<b>G, E</b>
			9.1.6	Support SCC initiatives and plans to develop Green Skills across the region to bridge the skills gap and foster local job creation.	M	S	NQ	NQ	<b>G, E</b>
	9.2	Support and promote low carbon and circular economy opportunities to businesses in Guildford			M	S	NQ	NQ	<b>G, E</b>
			9.5.1	Evidence and celebrate with regular updates.	O	S	NQ	NQ	<b>G, E</b>
	9.3	Engage and work with housing providers and residents within Guildford to work towards the net zero carbon target.			M	S	NQ	NQ	<b>G, H</b>
			9.3.1	Develop community empowerment programmes and showcase community sustainability champions	M	D	NQ	NQ	<b>G</b>

			9.3.2	Facilitate and promote retrofit programmes funded by the Green Homes Grant Local Authority Delivery Funds	O	E	£	NQ	<b>G, H</b>
			9.3.3	Work with social housing providers to accelerate low carbon measures for social housing.	O	S	NQ	NQ	<b>G, H</b>
			9.3.4	Collaboration with SCC to explore setting up a loan scheme to help landlords improve buildings and reduce emissions for the benefit of tenants.	M	S	NQ	NQ	<b>G, E, H, W</b>
			9.3.5	Continue to facilitate and promote national funding schemes such as the Home Upgrade Grant or similar.	O	E	£	NQ	<b>G, H, W</b>
			9.3.6	Continue to support the Action Surrey fund to provide help for high carbon households pay for low carbon measures and reduce the cost of heating	O	S	£	NQ	<b>G, H, W</b>
			9.3.7	Investigate further collective buying schemes to reduce the cost of solar panels and energy storage, such as 'Solar Together' or similar.	M	S	NQ	NQ	<b>G, H</b>
	9.4	Encourage the provision of key services within 20-minute neighbourhoods			O	E	NQ	NQ	
	9.5	Investigate the Community Energy Pathway with a view to implement and provide support community groups seeking to invest in energy efficiency measures and renewables			S	D	£	NQ	<b>G</b>
	9.6	Engage and work with other stakeholders within Guildford to work towards the net zero carbon target.			S	S	£	NQ	<b>G, E, H, W</b>

			9.6.1	Identify groups in Guildford and Surrey working towards community climate action. Showcase and seek out funding opportunities to support their work	S	S	£	NQ	<b>G, E, H, W</b>
			9.6.2	Explore joint working and academic research opportunities with universities	O	S	NQ	NQ	<b>G</b>
			9.6.3	Support and encourage community sustainability champions and develop community empowerment programmes.	O	S	£	NQ	<b>G</b>
			9.6.4	Ensure that there are real opportunities to encourage community-led initiatives, such as the promotion of decentralised renewable energy use or securing land for local food sourcing.	M	E	£	NQ	<b>G, E, W</b>
			9.6.5	Work with a network of community partners through the Greener Futures Climate Delivery Network and others to encourage participation and provide support for community led activities.	O	S	£	NQ	<b>G</b>
			9.6.6	Encourage carbon reduction bids to 'Your Fund Surrey' which provides funding for capital projects to reform neighbourhoods.	O	S	£	NQ	<b>E, H, P, W</b>
	9.7	Facilitate, support, and encourage industries and academia to explore opportunities to pioneer innovative low-carbon solutions			O	S	£	NQ	<b>E</b>
	9.8	Engage with major businesses to encourage their leadership in tackling climate change, sustainability, ethical solutions, and waste reduction, and showcase good practise.			M	L	£	NQ	<b>E</b>

