# Richmond upon Thames Climate and Nature Strategy 2025-2030

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## **Executive Summary**

London Borough of Richmond upon Thames has set a target to be net zero as a borough by 2043, which is 7 years ahead of the UK target to be net zero by 2050. In order to achieve this target, there is a need to step up action on climate change across the borough.

The draft Richmond upon Thames Climate and Nature Strategy 2025-2030 sets out the strategic approach to climate action for the next 5 years. This approach builds on the previous Richmond Climate Emergency Strategy and goes further in its ambition on climate action. It brings together work from across the Council that delivers on climate change and is underpinned by individual strategies and plans that focus in detail on these areas, such as the Adaptation and Resilience Strategy, Retrofit Strategy, Decarbonisation Strategy, Air Quality Action Plan, Local Plan, Sustainable Transport Strategy and Biodiversity Action Plan.

Rising global temperatures have caused significant changes to our planet, impacting people and nature. Locally, Richmond upon Thames faces hotter, drier summers, warmer, wetter winters, and more extreme weather. We have seen rising temperatures and changing precipitation patterns, with future projections indicating further increases and vulnerable communities will be disproportionately affected. With the River Thames flowing through the heart of the borough, flooding is a concern for residents. Without action, climate change will have increasingly severe impacts, including flooding and heatwaves.

We know where our carbon emissions come from in the borough, 46% of carbon emissions come from domestic buildings and 24% from transport. The borough also has London's second highest per capita consumption-based emissions from households. Knowing this, London Borough of Richmond upon Thames has set a net zero target of 2043, based on the science of climate change and what we need to do make our fair contribution to reducing carbon emissions. We have also set out an ambitious pathway for how we can get to net zero.

Nature is crucial for human society, providing essential services like oxygen, food, and materials. Access to nature also offers significant physical and mental health benefits, such as stress reduction, disease prevention, and improved well-being. We know that nature and green spaces are important for our communities, but a changing climate threatens this, which is why we have created a Climate and Nature Strategy to address these connected problems.

Climate action can generate co-benefits, such as improved air quality, warmer homes, job creation and reduced energy bills. Making the most of these co-benefits is a key part of our approach to climate action. Supporting this is the idea of a Just Transition which ensures all members of society benefit from climate action, focusing on equity, inclusivity, decent work, and leaving no one behind.

The draft Richmond Climate and Nature Strategy 2025-2030 has been developed to reflect community needs and priorities, with participation from people who live, work and study in the borough to build our approach. This has happened through online and in person workshops, stakeholder partnership meetings and an online engagement & consultation platform. Central to it have been the 'Community Reporters' who have gone out into their communities to gather insights and opinions from residents and communities to shape the strategy.

During the development of the strategy a series of 5 principles were identified which are at the core of the Council's approach to climate action:

- We are a place-shaper: As a local authority, we play a pivotal role in shaping and facilitating the future of our borough and the communities within it
- We focus on reducing carbon emissions: Our efforts are concentrated on areas where we can achieve the greatest reduction in carbon emissions, driven by the scientific evidence.
- We are building a resilient borough: We are committed to creating a borough that is future-ready and capable of withstanding the impacts of climate change.
- We work with communities and partners: Addressing climate change is a collective effort that requires collaboration with our communities and partners, the Council alone cannot reach Net Zero by 2043.
- We weave our actions together: Sustainability and tackling the climate emergency is interconnected and complex, requiring a holistic approach that maximises the co-benefits of climate action.

The Richmond Climate and Nature Strategy has identified five focus areas which will drive the Council's work to reduce carbon emissions from across the borough, support our residents and communities to take action on climate change and prepare for a changing climate. These focus areas are:

- Our buildings reducing carbon emissions from our buildings
- Our travel and air increasing sustainable travel and reducing air pollution
- Our nature protecting and enhancing biodiversity and green spaces
- Our resources moving to a zero-waste economy
- Our resilience preparing for a changing climate

Supporting these are two accelerating action areas, which are focused on how Richmond Council as an organisation can reduce its carbon emissions and better support climate action across the borough:

- Our Council becoming a carbon neutral and climate ready organisation by 2030
- Our communities supporting climate action across the borough

This Climate and Nature Strategy ais a draft which is being consulted on, with a final version with a detailed action plan set to be discussed and approved in June 2025.

## An Introduction to the Richmond upon Thames Climate and Nature Strategy 2025-2030

In the foreword to the previous Richmond Climate Emergency Strategy, my late friend and colleague Cllr Martin Elengorn remarked that "the existential and urgent crisis posed by climate change, with the risk of 'tipping points' or points of no return, has begun to be more widely appreciated". Over the last five years, the risks associated with climate change have become even more apparent, and actions to address it have become even more important.

The London Borough of Richmond upon Thames has made significant strides: we have reduced carbon emissions from the Council, supported low-income homes to become more energy efficient, and increased our capacity to deal with flooding. We have sought to be innovative and have worked in partnership with other organisations across London and with communities within the borough.

However, we urgently need to do more. The Richmond upon Thames Climate and Nature Strategy sets out the rationale and context for action. We have set an evidence-based target of being a net zero borough by 2043. The pathway to reach that target is clear, albeit ambitious and challenging.

The Climate and Nature Strategy also recognises that alongside the climate crisis, we face a crisis in nature as well. Our natural world needs our protection and advocacy. Yet it will also play a crucial role in protecting us. Our natural environment and our mental and physical wellbeing are ultimately all connected in this mission.

Invaluable feedback from our communities and partners has been incorporated into the Strategy. I am particularly grateful for the contributions made by our special Community Reporters, who have each delivered a range of feedback from within their own communities. My thanks go to everyone who has contributed their time, energy, and insights. Residents want swift and meaningful progress on climate change, and our communities want to be an integral part of this journey.

The Council has a pivotal role to play as facilitators and connectors, bringing together groups from across Richmond upon Thames to shape a sustainable future for our borough. Our actions on climate change do not exist in isolation; they bring other benefits that enhance our overall quality of life. From cleaner air to greener spaces, from lower energy bills to green jobs, the positive impacts of climate action are far-reaching and will benefit everyone in the borough.

**Cllr Julia Neden-Watts** 

Joint Deputy Leader of the Council Chair of the Environment, Sustainability, Culture & Sports Committee

## A vision for a Net Zero Richmond upon Thames in 2043

The London Borough of Richmond upon Thames is committed to becoming London's greenest borough, inspired by its natural surroundings from the Royal Parks to the River Thames winding through the heart of the borough. As a natural leader in environmental stewardship, we aim to create a sustainable, resilient, and thriving community that prioritises people, nature, and the planet.

In 2043, Richmond upon Thames will be a net zero borough, with the Council, communities, businesses and partners all working together to embrace change and push boundaries on sustainability and climate action. Richmond upon Thames will be a beacon of low-carbon living, with a borough-wide retrofit-led approach to reducing carbon emissions. Our homes will be energy-efficient, equipped with renewable energy solutions like heat pumps and solar panels, fostering a thriving retrofit economy and creating well-paid local jobs.

By championing sustainable transportation through prioritising public transport and active travel, Richmond upon Thames will be accessible and inclusive for all. Walking, wheeling and cycling will be the norm, supported by improved infrastructure to make our streets safer, our air cleaner and a healthier more connected community.

Our parks and open spaces will be recognised as outstanding, providing vital green havens for our community. Residents will actively engage in maintaining their local environments, from caring for street trees to planting climate-adapted species in their gardens. By 2043, our parks and green spaces will flourish despite climate challenges, and thanks to long-term, adaptive management practices.

We will transition to a circular economy, where reuse, repair, and recycling are integral to daily life. Our communities will be dynamic centres of activity, with upcycling, refill, composting, and sustainable living at the core, with growing local businesses supporting a culture of maintenance and longevity, reducing waste while also strengthening community bonds.

Richmond upon Thames will be a leader in climate adaptation and resilience. The risks from a changing climate will be well understood, and measures to reduce these risks will be in place, increasing the resilience of the borough. Richmond upon Thames will be a sponge city, with permeable surfaces and green infrastructure managing water flow and reducing flood risks through nature-based solutions. Homes will be retrofitted to protect residents from extreme weather, and early warning systems will ensure community safety.

As we work towards our 2043 net-zero target, the Council will lead by example by becoming carbon neutral by 2030 and significantly reducing carbon emissions from our operations. Our buildings will be energy-efficient, our vehicle fleet electrified, and our workforce equipped with the skills to tackle climate change.

Together, we will create a greener, healthier, and more resilient Richmond upon Thames, where nature and community thrive, and future generations can enjoy a sustainable and vibrant borough.

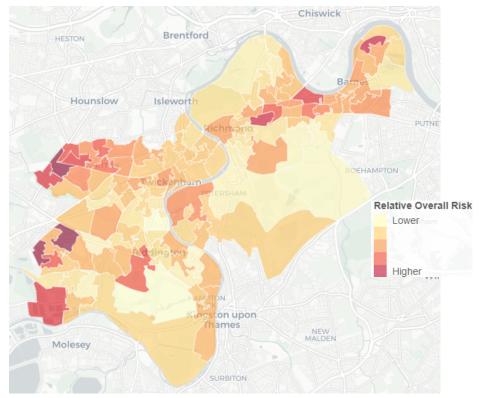
## The impacts of climate change on Richmond upon Thames

The rise in global temperatures has already caused significant changes to our planet and in turn impacted heavily on people and nature. Indeed, every region on the planet has experienced some changes in climate and extreme weather. An estimated 3.3 to 3.6 billion people globally live in places considered to be highly vulnerable to climate change. These people are disproportionately affected by climate change in that they generally have contributed least to global greenhouse gas emissions and yet are bearing the greatest impacts of climate change. These impacts are wide ranging, including direct and indirect impacts. As such, it can be hard to quantify the full impacts of climate, where changes in climatic conditions have had indirect consequences or exacerbated existing challenges. That being said, impacts have already been observed globally, including on water availability and food production; health and wellbeing; cities, settlements and infrastructure; and biodiversity and ecosystems.<sup>1</sup>

The UK is not immune to the impacts of climate change and indeed changes have already been observed here. The UK's climate is temperate maritime, meaning the climate is generally cool and mild, with changeable weather. As global temperatures, the main impacts in the UK are expected to be hotter and drier summers, warmer and wetter winters, and more frequent and severe extreme weather events.<sup>2</sup>

As these changes unfold at the national level, so too is the borough of Richmond upon Thames affected. Average annual temperatures have increased from 8.6°C 1890 to 12°C in 2022. Precipitation has significant annual variability, but overall summer precipitation has decreased and winter precipitation has increased. These observed changes are expected to continue in future, with average annual temperatures projected to increase by up to 5.1°C by 2099 under a high emissions scenario; summer precipitation projected to decrease by up to 54.3% by 2099 under a high emissions scenario; and winter precipitation projected to increase by up to 27.5% by 2099 under a high emissions scenario. In 2022, temperatures exceeded 40°C for the first time on record. This could be a normal summer by 2099. There are also emerging risks from climate change, including wildfires, sea level rise, and infectious and vector borne disease.

Communities across Richmond upon Thames will be disproportionately affected by climate change, owing to existing vulnerabilities which will exacerbate the impacts of climate change for certain groups. The figure below shows the overall risks of climate change across the borough. This accounts for exposures to climate hazards and social vulnerabilities that worsen the impacts of these exposures. It is clear that where vulnerability is higher, climate-related risks are greater, owing to the lower adaptive capacity of vulnerable groups and pre-existing health conditions making exposure to climate hazards more severe.



Overall risk to climate change in the London Borough of Richmond Upon Thames, at the LSOA level. Source: <u>DataRich – Climate Risk Map</u>

Extreme weather is already affecting the borough of Richmond upon Thames and London as a whole. In the summer of 2022, London experienced a severe heatwave, during which five extreme heat episodes were recorded between June and August 2022 (the highest number in any given year). During this heatwave, there was a record number of Heat-Health Alerts (HHAs) issued since their introduction in 2004 and 387 excess deaths in London. Record-breaking temperatures were recorded in London at 40.2°C on 19 July 2022.<sup>40</sup> The borough is also vulnerable to storms. In February 2022, three named storms hit Richmond upon Thames in one week. As a result of the storms, shops, businesses and parks closed, including Kew Gardens, Richmond Park and Bushy Park. The Council issued a "Stay Indoors" warning to residents, as there was a risk to life due to high winds. The Met Office issued a Red Warning for strong winds, with recorded wind speeds reaching up to 70mph. In Richmond Park, a total of 60 trees fell, three of which were veteran oaks, and two other veteran trees were damaged. In Bushy Park, more than 40 trees were lost.

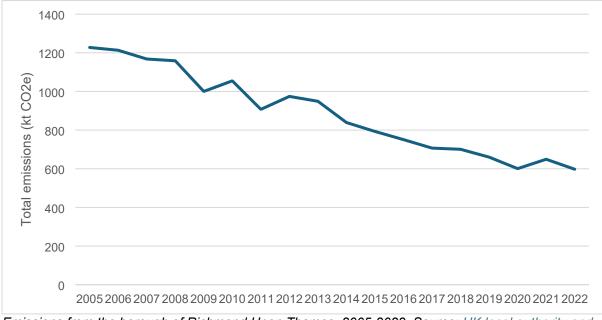
Without concerted action, climate change will have increasingly devastating impacts. Particular consideration must be given to vulnerable communities who will be worst affected by climate change and have a lower adaptive capacity to implement measures themselves that could increase their resilience to climate change. So too do emerging risks need to be considered, alongside the increasing severity and frequency of extreme weather events already witnessed in Richmond upon Thames. For instance, the River Thames runs through the centre of the Borough and is a key part of the borough's identity. The Thames also poses a threat, however. Tidal flooding is frequent during high tides, but the Thames Barrier and broader defences manage this risk to protect people and property. By the end of the century, sea levels could rise by as much as 0.8m in London. As sea levels rise and heavy rainfall events and storm surges become more frequent and severe, flood risk in Richmond upon Thames could increase substantially. Significant investment is required to ensure flood defences are robust to these future changes. A further risk is posed by heatwaves and drought hardening the ground and making it impermeable, followed by heavy rainfall which can cause flash flooding.

## What we know about what's causing climate change in Richmond upon Thames

Greenhouse gas emissions have risen rapidly since the industrial revolution, with global emissions in the last decade (2010-2019) higher than at any other time in human history. Across all sectors and subsectors, greenhouse gas emissions have continued to rise globally. In 2019, the sectoral breakdown of global greenhouse gas emissions was: 34% from energy; 24% from industry; 22% from agriculture, forestry and other land use; 15% from transport; and 5.6% from buildings. Although emissions have continued to rise overall, there has been a slowdown in growth of emissions from energy and industry. In 2019, global greenhouse gas emissions totalled  $59 \pm 6.6$  GtCO2e.<sup>3</sup>

The national picture looks quite different, with the breakdown of the UK's emissions in 2022 being: 28% from domestic transport; 20% buildings and product uses; 14% from industry; 12% from agriculture; 14% from electricity supply; 8% from fuel supply; 5% from waste; and 0.2% from land use and land use change. The total emissions from the UK in 2022 were 406.2 million MtCO2e.<sup>4</sup>

Moving to the local level, the sources of greenhouse gas emissions in the borough are: 46% from domestic buildings; 24% from transport; 16% from industry; 14% from non-domestic buildings; 1% from waste (1%); and 0% net agriculture and land use. Emissions have decreased by around 50% between 2005 and 2022.<sup>5</sup>



*Emissions from the borough of Richmond Upon Thames, 2005-2022. Source: <u>UK local authority and</u> <i>regional greenhouse gas emissions statistics, 2005 to 2022 - GOV.UK* 

Consumption-based emissions are associated with the things we purchase and use, namely: food, housing, transport, goods, services, construction and machinery; and government. Richmond Upon Thames' consumption-based emissions were 1872 kilotonnes CO2e in 2020. The borough has the second highest per capita consumption-based emissions from households of all London boroughs, totalling 9.45 tonnes CO2e per capita (compared with

<sup>3</sup> Chapter 2: Emissions trends and drivers

<sup>4</sup> 2022 UK Greenhouse Gas emissions: one page summary

<sup>5</sup> UK local authority and regional greenhouse gas emissions statistics, 2005 to 2022 - GOV.UK

7.86 tonnes CO2e per capita for London). This represents a 34.7% decrease compared with 2001, when Richmond upon Thames had the highest consumption-based emissions in London. In 2021, Richmond upon Thames had the highest consumption-based emissions from transport of all London boroughs totalling 1.91 tCO2e per capita. This is reflective of the borough's high dependence on private cars as means of transportation, with 45% of consumption-based emissions from transport.<sup>6</sup>

The Council itself contributes to greenhouse gas emissions in the borough. Carbon emissions are organised into three groups or 'scopes':

- Scope 1 (Direct emissions): Activities owned, controlled or paid for by the Council that release emissions straight into the atmosphere. They are direct emissions and include combustion in gas boilers owned or controlled by the Council boilers or from petrol and diesel fuelled vehicles.
- Scope 2 (Energy indirect): Emissions released into the atmosphere associated with use of electricity, heat, steam and cooling. These are indirect emissions that are a result of Council activities, but which happen at sources that are not owned or controlled, such as power stations.
- Scope 3 (Other indirect): Emissions that are a consequence of Council actions, which occur at sources which are not owned and controlled and not classed as Scope 2 emissions. These include business travel by means not owned or controlled by the organisation, waste disposal, or purchased materials or fuels.

Richmond upon Thames Carbon Emissions (tCO2e)	2018/19 (Baseline)	2022/23	2023/24
Scope 1 (Gas and vehicle and plant fuel)	2,958	2,372	2,100
Scope 2 (Electricity)	3,456	0 (location-based emissions 1,631)	0 (location-based emissions 1,698)
Total Carbon Emissions	6,414	2,372	2,100

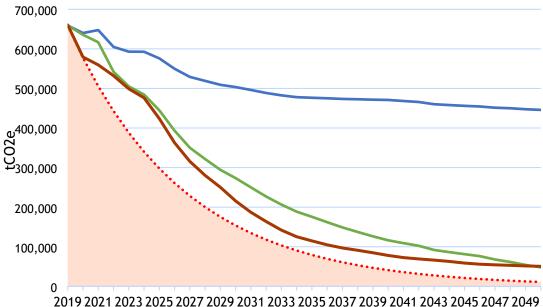
The figures show an overall decrease in emissions of 67.3% since 2018/19. This includes a 29% reduction in scope 1 emissions, which reflects the reduction in gas consumption in Council buildings from the baseline in 2018/19. The Council has reduced its Scope 2 emissions to zero due to the Council purchasing zero carbon electricity, which started in October 2020. Location-based emissions figures are also provided to demonstrate the Scope 2 emissions associated with reliance on the National Grid.

Local authorities are responsible for around 2% of emissions. However, the sphere of influence local authorities have is significant. As such, they can influence as much as a third of total emissions. Therefore, whilst the emissions from the Council itself are a relatively small proportion of the borough's total emissions, the Council has a vital role to play in influencing and enabling others to reduce greenhouse gas emissions.

## Richmond upon Thames' pathway to net zero 2043

The London Borough of Richmond upon Thames has set a target to be a net zero borough by 2043. This is a science-based target, meaning it aligns with the ambition of the Paris Agreement to limit "the increase in the global average temperature to well below 2°C above pre-industrial levels" and pursue efforts "to limit the temperature increase to  $1.5^{\circ}$ C above pre-industrial levels". The target is based on analysis by the Tyndall Centre, a leading climate research centre, which concluded that Richmond upon Thames' fair contribution to the Paris Agreement means reaching net zero by no later than 2043 (with optional 5% residual emissions included). The borough has a carbon budget of 5.5 MtCO<sub>2</sub>, meaning its total emissions cannot exceed 5.5 MtCO<sub>2</sub> between now and 2100. To reach net zero by 2043, the Tyndall Centre recommended that the borough reduces its emissions by at least 12.4% annually.

To inform how best to meet the science-based target, the Council commissioned consultants Anthesis to produce an emissions pathways report. This report provides a roadmap for how the borough can meet its 2043 net zero target. The analysis uses Anthesis' SCATTER tool to outline the scale of action and technological interventions required to meet net zero.



Possible reductions in emissions for Richmond Upon Thames along different emissions reduction pathways. There are four scenarios shown: business as usual (blue), high ambition (green), GLA pathways (solid red), and Richmond upon Thames' 2043 pathway (dotted red).

The "high ambition" scenario of the SCATTER tool (green line in the figure above) represents a scenario in which Richmond upon Thames goes significantly beyond existing national policy and National Grid assumptions and where action is not hindered by any funding or policy constraints and achieves. Under SCATTER's high ambition scenario, in 2043 Richmond upon Thames' greenhouse gas emissions equate to an 86% reduction. This means there is a gap of 64,374 ktCO2e between that high ambition scenario and the borough's 2043 net zero target (dotted red line in the graph above). Whilst closing this gap will be a challenge it is possible through accelerated and increased deployment of mitigation interventions, new technological interventions, as well as offsetting remaining carbon emissions to compensate for them.

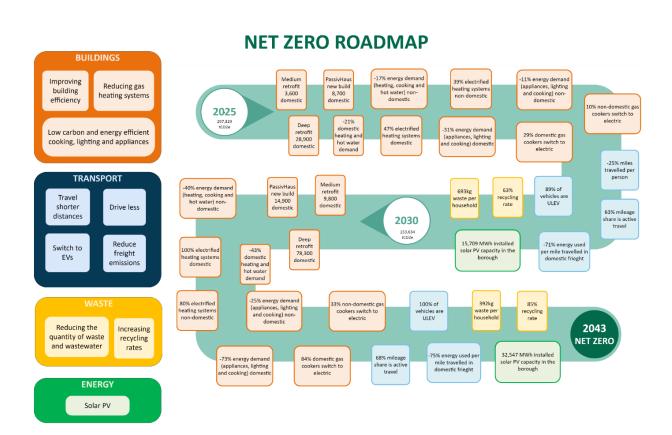
The analysis includes a sectoral breakdown of emissions. The greatest proportion of emissions come from domestic buildings (46%), followed by transport (24%), industry (16%),

non-domestic buildings (14%), waste (1%), and net agriculture and land use (0%). Sectorspecific targets and interventions are outlined to reach net zero for buildings (residential and non-residential), transport, industry, waste, natural environment, and energy supply. The priority interventions are shown in the table below.

SECTOR	INTERVENTION TO MEET NET ZERO
Buildings (domestic and non-domestic)	Improving energy efficiency
	Reducing gas heating systems
	Low carbon and energy efficient cooking, lighting and appliances
	Travelling shorter distances
Transport	Driving less
	Switching to electric vehicles
	Improving freight emissions
Industry	Shifting away from fossil fuels
muusuy	More efficient processes
Waste	Reducing the quantity of waste
Wasie	Increasing the recycling rate
Natural environment	Increasing tree coverage and tree planting
	Land use management
	Livestock management
Energy supply	Increase solar photovoltaic (PV) capacity

This analysis provides the evidence base for the Council to prioritise its climate action. This includes targeting the highest emitting sectors, identifying "low hanging fruit", and mapping where the Council has control and influence. The Council alone cannot meet net zero. Action is also needed from a range of stakeholders including national government, business, charities and the public. Nonetheless, the Council recognises the vital role it has to play and so it is leading the charge to reach net zero by 2043. Initial priority action areas for the Council are domestic buildings and transport, as these are the two largest sources of greenhouse gas emissions in the borough, and are sectors where the Council direct and indirect control and influence to enable the delivery of interventions to meet net zero.

The diagram on the next page shows a roadmap to net zero, highlighting the key targets that need to be met between now and 2043 for buildings, transport, waste and energy supply.



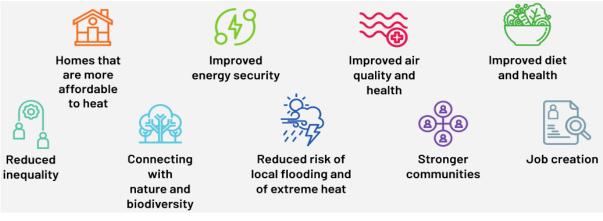
## The benefits of climate action

Climate action primarily aims to mitigate climate change by reducing the release of greenhouse gases into the atmosphere. Inclusive and sustainable climate action can not only mitigate climate change, but also generate a broad range of co-benefits. Co-benefits are the positive outcomes that are realised beyond the original purpose of climate action.

While the carbon benefits of action on climate change can feel distant or abstract, cobenefits are often more visible in people's day-to-day lives and therefore resonate with people more significantly. For many people, the co-benefits of climate change are more important to them and motivate them to act. It can also provide a stronger rationale for climate action which may prompt more buy in from decision makers, beneficiaries, and potential collaborators. A 'co-benefits approach' may also open additional funding routes to deliver on both the co-benefits and climate action meaning that it provides a strong rationale for climate action both for local government and for its residents.

Highlighting and maximising the co-benefits of climate action formed an important part of the Richmond Climate Emergency Strategy and remains a key part of the approach taken in the Richmond upon Thames Climate and Nature Strategy.

Guidance published by the charity Ashden highlights how local authorities can take a 'cobenefits approach' to developing and delivering projects and programmes of work. Nine cobenefits to climate action have been identified through research carried out by the Grantham Institute, Imperial College London and form the basis of the approach to co-benefits taken by London Borough of Richmond upon Thames.



The co-benefits used throughout this strategy are:

- 1. **Improved air quality and health:** Action on climate change can help to improve air quality and health by reducing the amount of air pollution from vehicles and buildings.
- 2. Warmer homes that are more affordable to heat: Action on climate change can help reduce fuel poverty by improving the energy efficiency of properties which makes them easier and cheaper to heat.
- 3. **Reduced risk of local flooding and of extreme heat:** Climate action can reduce the risk of flooding and extreme heat in the summer months.
- 4. **Improved energy security:** Reducing our reliance on imported oil and gas can improve the UK's energy security and reliability of supply while reducing greenhouse gas emissions.
- 5. **Job creation:** New green technologies and green businesses can provide an opportunity for the creation of new jobs.

- 6. **Connecting with nature and biodiversity:** More green space (e.g. trees) to absorb greenhouse gas emissions and more access to nature can help to improve people's physical and mental wellbeing.
- 7. **Stronger communities:** Action on climate change can provide the opportunity to strengthen communities by, for example, growing and redistributing food locally, sharing unwanted items (e.g. furniture, clothes), etc.
- 8. **Reduced inequality:** Action on climate change can particularly benefit those on lower incomes and help to reduce inequality (e.g. improving the energy efficiency of properties can disproportionately benefit those on lower incomes as they are more likely to live in a home that is hard to heat).
- 9. **Reduced waste:** Action that supports a reduction in waste materials being generated or supports generation of materials that can be reused or repurposed. This can include reduced costs or reducing pollution of the local environment.

#### Climate action, co-benefits and the cost-of-living crisis

In the face of the current cost-of-living crisis, there are concerns that people have more pressing concerns affecting their day-to-day lives than climate change, and that the perceived costs of climate action could exclude people from climate action or make the cost-of-living crisis worse. Residents' concerns over the cost-of-living crisis and the potential for climate action to negatively impact them can be alleviated by taking a 'co-benefits approach'. Co-benefits of climate action can help to alleviate the cost-of-living crisis, for example by reducing the cost of energy bills, residents living in poverty who face the choice of whether to 'heat or eat' can 'free up' finances to be utilised in other areas, while also reducing carbon emissions from energy use. Taking a 'co-benefits approach' to climate action means that these benefits, including those which contribute to alleviating the cost-of-living crisis, are emphasised and delivered upon. In Richmond upon Thames, understanding the importance of co-benefits to residents is vital to enable effective communication surrounding climate action and incentivising behaviour change.

## The need for a Just Transition

The concepts of a Just Transition have their genesis in the USA in 1980s, when trade unions pushed for the development of regulations to protect workers from pollution events. In recent times, the outcomes from these experiences have been adopted within the climate change in the idea of a Just Transition. The underlying concept is that all members of society should have a say in, and contribute to, the decision-making processes for achieving net zero. A Just Transition is defined by the International Labour Organisation as 'Greening the economy in way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities, and leaving no one behind'.

This wide public involvement ensures the development and delivery of climate mitigation and adaptation actions that are based on local needs, create local economic regeneration (such as new green jobs and higher wages) and improved health benefits.

Despite a generally high standard of living, pockets of deprivation, inequality, and fuel poverty exist across Richmond upon Thames. For example, income deprivation varies significantly across the borough, from around 1,266 persons in Heathfield to 409 in East Sheen.<sup>7</sup> Using a Just Transition approach to climate action will reduce these inequalities, and by including a range of voices local solutions to the challenges of climate change can be more effectively developed. In addition, all within the borough could benefit from the improved economic, health, and wider societal benefits that a net zero economy can bring.

#### **Core Principles**

The underlying key concepts of a Just Transition are a set of core principles, which focus on equity, inclusivity, provision of 'decent work', and of 'leaving no one behind':

- **Equity:** This principle is concerned with ensuring that the transition to a net zero economy benefits all segments of society, particularly those who are most vulnerable. Understanding vulnerable populations means that solutions can be targeted benefitting the most vulnerable who are often at risk from factors such as increased warming, flooding, and the frequency of extreme weather events. For example, around 8.8% of households in Richmond upon Thames live in fuel poverty.<sup>8</sup> A Just Transition would mean the targeting of support towards those residents who are experiencing higher fuel poverty in the borough.
- **Inclusivity:** This principle focuses on ensuring that a wide range of stakeholders are involved in the planning and implementation of climate policies. Those who traditionally may not have had an opportunity to have their say are afforded the opportunity to do so, leading to climate actions that are more holistic and reflective of community needs. This means more opportunities for dialogue between communities and decision-makers, enabling barriers to be broken down and for perceptions to be addressed directly.
- **Decent Work:** This principle speaks to the creation of new job opportunities that are safe, fair, and provide living wages. A net zero economy will facilitate the creation of new, better paying, higher skilled jobs in Richmond upon Thames. In turn, these opportunities will attract new organisations and talent into the borough, thus further driving economic activity. For example, while the percentage of individuals in professional occupations in the borough is higher than the average in England (circa 34% in Richmond upon Thames vs circa 26% in England), that for skilled trade professions is lower (circa 5% in Richmond upon Thames vs 9% in England)<sup>9</sup>. Utilising a

<sup>7</sup> DataRich – Cost of Living Data

<sup>&</sup>lt;sup>8</sup> Environment - UTLA | Richmond upon Thames

<sup>&</sup>lt;sup>9</sup> Economy - UTLA | Richmond upon Thames

Just Transition would assist not only creating opportunities for better wages, but also in growing the number of skilled jobs in the borough.

• Leaving No One Behind: This principle aims to ensure that no community or worker is left worse off as a result of the transition. A Just Transition should aim to include and benefit all, rather than only segments of the community and/or workforce. In the case of Richmond upon Thames, this might mean that the provision of environmental services in the borough (e.g., household recycling, repair, or reuse services) is designed in such a way that all communities fall within a given radius of the service provision and can access them.

## An ecological crisis as well as a human crisis

An ecosystem is a natural biological unit that is made up of both living and non-living parts. They include habitats (where different species live) and a community (made up of different types of species). Each species within the ecosystem has its own individual niche which may overlap with other species but is never exactly the same as another species. Examples of ecosystems include ponds, woodlands, grasslands, coral reefs or arctic tundra. Ecosystems can be further broken down into Biomes, for example temperate woodland or wetlands. Each ecosystem is dynamic and will naturally fluctuate within environmental limits (known as ecological resilience); they will also tolerate a certain amount of disturbance such as a localised storm, frost or flooding for short periods and provided it can revert back to its basic equilibrium state relatively quickly the ecosystem will function.

Permanent or more regular environmental changes or disturbances will have far greater or permanent consequences as the state equilibrium cannot be regained. This will mean that certain species will be unable to obtain what they need to exist, for example, increased air temperature will impact species unable to regulate their internal temperature and push them to the limits of their ecosystem boundaries. If this continues until such time that they cannot thrive and that community of species dies out.

#### Impacts on nature from a changing climate

Global impacts to nature and ecology from a changing climate include the well documented and studied impacts to coral reefs. Coral are tiny animals called polyps (soft and squidgy similar to a sea anemone), they live close together, protected by a limestone exoskeleton they build using minerals from the seawater. During the day the polyps remain in their protective skeleton but at night they emerge to feed on zooplankton (tiny animals that float in the sea) or fish. The polyps have a symbiotic relationship with colourful algae, the algae provide sugars for the polyps to feed on and the algae benefit from the protective skeleton and provide the beautiful range of colours that the different corals exhibit.

When subjected to increased water temperature as a result of climate change, the algae are expelled from their homes leaving behind leaving the white exoskeleton of the polyps. Without the sugars from the algae to support them the polyps die off, which is known as 'bleaching'. The habitat provided by the corals starts to deteriorate, degrading the environment for numerous species such as fish, molluscs, worms, crustaceans, echinoderms and sponges that depend upon the reef for survival. The loss of these species has a knock-on effect to the next layer up on the food chain such as larger fish, turtles and sharks.

Locally, a number of climate change impacts are affecting Richmond upon Thames including drought, higher temperatures and more frequent storms. Drought is a significant impact for trees as their roots are unable to grow quickly enough to reach the deeper water table levels, leading to reduced tree growth, crown die back and tree mortality. Herbaceous plants will crisp up in the strong sun light and may not be able to regrow. As the water table sinks lower and the ground hardens, when rain does fall it isn't able to penetrate below the surface and bounces off causing flash flooding. Existing water drainage systems aren't able to cope with the additional water and this means that there is nowhere for the water to go and will stay above ground until the back log is cleared.

Climate change has brought in and created better environmental conditions for non-native invasive species. These include pathogens that attack crops and native species. An example of this is the pathogen *Phytophtora cinnamomi* which causes acute oak decline. Another non-native invasive species benefitting from climate change is the horse chestnut leaf miner

moth which is present in most if not all horse chestnuts in the borough. The moth feeds on the inside of the horse chestnut leaf and rather than killing the tree weakens it. Combined with the bleeding canker rust that is prolific in horse chestnuts, also facilitated by climate change, it leaves the tree weak and more vulnerable to attacks from further pathogens and fungi. As non-native invasives do not have their natural predators in the ecosystem to limit and control their population, this can then exacerbate the spread and the impacts they cause to native species.

#### The importance of nature to society and human health

The human population is completely dependent on the natural environment. In simple terms nature provides us with the oxygen we breath, the food we eat, and materials to clothe and house us, known sometimes as ecosystem services. Some ecosystem services are well covered in policies to support them, but others are yet to be included. This is potentially due to a lack of understanding or an inability to determine where they should sit due to the complexity and wide catchment of the benefits.

One of the hardest ecosystem services to value is that of physical and mental health benefits. Parks and open spaces provide people with space to breathe, walk, exercise, socialise and learn. For those living in city centres or high rise flats, the value and need may be greater than those living in the countryside or suburbia. This was clearly evidenced by the Covid pandemic where all space was at a premium and visitor numbers rose significantly. In some parks within Richmond upon Thames visitor numbers are still high.

Access to nature can deliver physical health benefits, including weight control, stress reduction, prevention and management of diseases such as cardiovascular diseases, cancer and diabetes. Studies have been carried out to compare the results from regular exercise in parks and woods compared to that in gyms, the former saw reduced risk of mental health as well as decreasing recovery time.

The mental health benefits from nature-based interventions include social empowerment and cohesion and a reduction of isolation and loneliness. According to a 2021 Mental Health Foundation report, 45% of the UK population stated that visiting green spaces helped them to cope through the pandemic and that high quality nature spaces are most likely to help support good mental health. 73% of UK adults said that connecting with nature has been important in terms of managing their mental health during the pandemic with 34% saying they have connected more with nature than previously. In addition are the intrinsic benefits from being in nature, from listening to the sounds of birdsong or rustling leaves to the smell of wildflowers or cut grass. Nature can bring joy, calm and peace just from being in a park or an open space without being surrounded by walls and buildings.

## The climate policy and legislative context

#### International Frameworks

The Intergovernmental Panel on Climate Change (IPCC), a UN body, assesses climate science, impacts, risks, and adaptation/mitigation options. While it doesn't directly engage with local governments, its research and frameworks offer essential knowledge and tools for effective local climate policies. The 2023 Sixth Assessment Report emphasised the urgent need for transformative adaptation and immediate emissions reductions.

The United Nations Framework Convention on Climate Change (UNFCCC), signed by 198 countries, aims to stabilise greenhouse gas emissions to prevent dangerous human-induced climate interference. The Kyoto Protocol commits industrialised economies, including the UK, to reduce GHG emissions per agreed targets.

The Paris Agreement, adopted by 196 Parties during COP21, is a legally binding treaty aiming to limit global temperature rise to well below 2°C, with efforts to cap it at 1.5°C above pre-industrial levels. The Agreement underscores the critical role of local governments in the global climate response.

Conferences of the Parties (COPs) serve as the main global forum for multilateral climate discussions. They review the implementation of the Convention, Kyoto Protocol, and Paris Agreement, and adopt decisions to further develop and implement these instruments.

#### National Policy and Local Legislative Context

The Climate Change Act 2008 establishes a framework for the UK to achieve long-term emissions reduction targets. It was the first global legally binding climate change mitigation target set by a country. The Act mandates the development of a National Adaptation Programme every five years. Initially, the Act aimed for an 80% reduction in GHG emissions by 2050 compared to 1990 levels, but this target was updated in 2019 to a 'net zero' target by 2050.

The UK Net Zero Strategy outlines policies and proposals to decarbonise all sectors of the UK economy to meet the 2050 net zero target. It highlights the crucial role of local and devolved governments in achieving national targets and inspiring action within communities, businesses, and civil society.

The Climate Change Committee (CCC), an independent statutory body created under the Climate Change Act 2008, advises the UK and devolved governments on emissions targets. The CCC's key reports to Parliament include progress against targets, adaptation, and carbon budgets. The Sixth Carbon Budget report emphasises the need for seamless collaboration between government, regional agencies, and local authorities.

#### London Climate Policy

The Greater London Authority (GLA) is the democratically elected strategic authority for London, comprising the Mayor of London and the London Assembly. The Mayor provides city-wide leadership and creates plans and policies scrutinised by the Assembly. Key strategies include the Environment Strategy, Transport Strategy, and the London Plan, with adaptation approaches set by the London Climate Resilience Review, and flooding London Surface Water Strategy and the Thames Estuary 2100 Plan.

### What we've done already

The Richmond upon Thames Climate and Nature Strategy builds on the work of the previous Climate Emergency Strategy 2020-2024. Key achievements over the past few years include:

- Achieved a place on the CDP Cities A list for 2 years in a row (2022 and 2023).
- Reduced carbon emissions from the organisation by 76.8% since 2017/18.
- Decarbonisation of Council buildings using government funding.
- Plans developed for switching to electric vehicles for the Council fleet.
- New Local Plan, which goes further on climate change than before, is due to be approved.
- 212 properties received energy efficiency improvements via Green Homes Grant.
- Warm Homes Packs received by over 1000 residents plus energy efficiency advice and support. New programme just launched.
- Work to increase skills on retrofit across South London.
- Launched a Library of Things in Twickenham.
- 945 EV chargepoints in the borough alongside e-cargobikes, e-bike hire and an e-scooter trial.
- Support for businesses via Making Richmond Businesses Greener scheme.
- Cultural Reforesting at Orleans House Gallery bringing art and culture to climate and nature.
- Community Bluescapes project focused on flooding in the Beverley Brook area.
- Over 2000 trees planted since the start of the Richmond Climate Emergency Strategy.
- Supporting community climate action through Richmond Climate Microgrants.
- Richmond Sustainability Forum bringing together groups and individuals taking climate action.
- Working with schools including a schools resource hub and primary schools eco summit in February 2024.
- Resident Action Pack as a resource for climate action.
- Working with other London Boroughs and public sector partners to collaborate on climate action.
- A Domestic Retrofit Task and Finish Group carried out by the Policy, Performance and Review Board which made recommendations on improving our approach to retrofit.

## How we've built the Climate and Nature Strategy

We recognise the complexity of climate and sustainability within our borough and endeavour to engage with residents and communities in a meaningful way, to fully understand how it relates to life in the borough, to ensure resident views are fully heard and to go further in reaching wider audiences. Communities are at the heart of climate action and we have ensured they are also at the heart of decision making in shaping this strategy.

We've adopted a principle of openness and transparency to reflect community needs, inviting participation from people who live, work and study in the borough through a variety of opportunities to enter conversation, offer insights, explore solutions and the wider system challenges. This has been enabled via a series of online and in person workshops, stakeholder partnership meetings, the open Richmond Sustainability Forum events, an online engagement & consultation Commonplace platform as well as recruiting climate 'Community Reporters' tasked with opening conversations with diverse and differing audiences and gleaning qualitative insights to feed directly into this new strategy.

The climate 'Community Reporters' have enabled a rich independent dialogue in our neighbourhoods, highstreets, community centres and open spaces – exploring awareness and appetite for individual and collective responsibility. It has enabled a more systemic exploration of the barriers and opportunities facing our residents, the role of the council, how our collective action is interwoven and opportunities to work better together. It has allowed us to go further than before in responding to residents. It has enabled us to understand how narrative around climate and sustainability has changed since our last Richmond Climate Emergency Strategy was written in 2019, what core themes and commonalities exist, what agency and urgency looks like across the borough, what gaps exist, and what priorities to address in the next 5-year strategy on our collective pathway to our 2043 Net Zero goals and our need to create a more climate resilient borough.

We've created spaces for partners to come together and collaborate about our borough's climate and sustainability challenges – welcoming multi-sector perspectives from educational, cultural, voluntary, public and private sector. Our well attended Richmond Sustainability Forum continues to evolve, creating a platform for debate, co-creating solutions, tackling issues and celebrating what is working well.

The online engagement & consultation Commonplace platform invited residents to shape our strategy via pinpointing place-based suggestions for interventions as well as capturing qualitative and quantitative insights via surveys – with real time survey responses and the interactive map sharing live contributions. It permitted experimentation with early dialogue creation through the Circular Economy hub survey and an opportunity to display our community and nature-based flood and climate resilience programme Community Bluescapes.

Behind the scenes, the qualitative and quantitative learnings have been explored with colleagues from across the Council, and our wider partners, to stretch our ability to respond to the growing challenges and go further in our ambitions and shape this new 2025-2030 strategy.

## **Key principles**

The Council's climate work is driven by a recognition that simply delivering projects in isolation will not address the climate emergency. 5 key principles have been identified, based around the values of the organisation, which drive the Council's approach to tackling climate change:

#### We are a place-shaper

As a local authority, the Council plays a pivotal role in shaping the borough and the communities within it. This involves being a facilitator who brings together stakeholders, an example setter who leads by inspiring others, and a place-shaper who uses our powers and responsibilities as a local authority to create sustainable communities.

#### We focus on reducing carbon emissions

The Council's efforts are concentrated on areas where we can achieve the greatest reduction in carbon emissions. This approach is driven by the scientific evidence on carbon emissions and climate change as well as innovation, ensuring that our actions are both effective and forward-thinking.

#### We are building a resilient borough

The Council is committed to creating a borough that is future-ready and capable of withstanding the impacts of climate change. This involves enhancing our infrastructure, ensuring that our communities are prepared for the challenges of a changing climate, thinking in the long term and planning for the future.

#### We work with communities and partners

Addressing climate change is a collective effort that requires collaboration with communities and partners. The Council alone cannot reach Net Zero by 2043. By working together, we can bring together different perspectives, voices and resources to create more effective and inclusive climate solutions.

#### We weave our actions together

Sustainability and tackling the climate emergency is interconnected and complex, requiring a holistic approach. The Council will maximise co-benefits by integrating our actions across different sectors, teams and organisations. This ensures a just transition that considers social equity and economic viability.

## **Action areas**

The Richmond upon Thames Climate and Nature Strategy sets out five focus areas which will drive our work to reduce carbon emissions from across the borough, support our residents and communities to take action on climate change and prepare for a changing climate. These focus areas look to the wider borough.

#### Our buildings – reducing carbon emissions from homes across the borough

Our vision is to transform Richmond upon Thames into a low carbon beacon of sustainability and resilience by implementing a borough-wide retrofit-led approach to reducing carbon emissions from our buildings that improves energy efficiency and promotes sustainability. We aim to achieve this through a collaborative, data-driven approach that engages and empowers our residents and communities, supports economic growth, while ensuring equity and inclusivity for all residents.

#### Why do we need to take action

London Borough of Richmond upon Thames has committed to being a net zero borough by 2043. In 2022, domestic carbon dioxide emissions made up 44.7% of the borough's emissions, presenting significant opportunities to drastically reduce emissions and achieve Net Zero. Due to the significant percentage of emissions in existing buildings, achieving Net Zero can only be achieved through borough-wide retrofit.

The scale of retrofitting housing in Richmond upon Thames presents significant challenges, particularly in improving the energy efficiency of its diverse housing stock. In 2021, 60.5% of homes in the borough had an Energy Performance Certificate (EPC) below EPC C and therefore a significant portion of the housing stock requires substantial upgrades to meet appropriate energy efficiency standards. The housing stock includes a mix of tenure types, such as privately owned homes, privately rented properties and housing association properties, each with different funding and management structures, further complicating retrofit efforts.

A coordinated and strategic approach is needed to ensure that retrofit can be supported and take place across the whole borough. There is a need to support residents to be able to access and undertake retrofit so they can realise the benefits that come from it. A strategic approach is also necessary to enable effective collaboration between the different Council teams that need to work together to achieve borough-wide retrofit and collaboration is also required between partners and stakeholders.

#### What will Richmond upon Thames look like in 2030

In 2030, Richmond upon Thames will have embraced retrofit, with residents increasingly looking to improve their homes by improving their energy efficiency and installing renewable energy solutions. The number of heat pumps and solar panels installed in the borough will have increased exponentially, with information and advice widely available and accessed by residents. This will have created a thriving retrofit economy, with an increase in the number of construction companies offering retrofit approaches and an increase in the number of well-paid jobs for local people in this industry. Place-based approaches to retrofit and decarbonisation will be underway, providing retrofit at scale in a way that is affordable for most people.

#### What will Richmond upon Thames look like in 2043

In 2043, the majority of homes in the borough will have taken part in retrofit of some form. Solar panels will be ubiquitous, with a non-solar house the exception, while gas boilers are a relic of the past. This will have driven down the carbon emissions associated with domestic housing to minimal levels and increased the comfort of people's homes.

#### Decarbonising privately owned and rented housing

#### Aim

Retrofit of privately owned and rented housing will focus of the Council's role as a facilitator and a source of trusted information to enable homeowners to make informed decisions giving them confidence to undertake retrofit. We aim to engage owner occupiers and target landlords to raise awareness and understanding of the benefits and process to retrofit, and to mitigate some of the risk to retrofitting. With the sector spanning owner occupiers, private landlords and renters, we must employ a variety of methods to progress retrofit, with each category facing distinct challenges.

#### What's already in place

To support privately owned and rented housing energy efficiency, we have introduced and run a programme of Warm Home Packs, supporting homes with low income and low energy efficiency ratings. These measures have saved almost 1500 households £200 a year on their bills while improving thermal comfort and energy efficiency of homes, raising awareness of the impact of home improvements and reducing associated emissions.

We have previously secured government funding to support 212 properties through delivery of the Green Homes Grant, providing up to £10,000 to improve the energy efficiency of privately owned homes with poor energy efficiency and a low household income. We have also supported solar purchasing schemes, offering solar photovoltaic (PV) panels and battery storage as a group-buying scheme.

#### What are we going to do

To overcome the barrier of lack of information and combat misinformation, the Council will provide comprehensive information about retrofit options, costs, benefits, payback times, financial support schemes, and steps to begin the retrofit journey. A communications campaign will raise awareness and promote behaviour change, encouraging professionals to explain potential energy efficiency measures for residents' development plans.

We will continue to support those less able to pay, building on our warm home packs and existing cost of living support to improve homes' energy efficiency and will secure funding as part of the government's Warm Homes Local Grant, which will fund efforts to tackle fuel poverty locally, improving energy efficiency and increasing low carbon heating installations for low-income households.

Engaging landlords is crucial for private sector retrofitting, so we will ensure landlords are aware of legislation changes to EPC requirements for rented homes, highlighting increasing costs as demand grows. We will also explore extended enforcement powers where all landlords would be required to hold a licence granted only if the property meets minimum standards.

To address planning permission barriers, the Council will clearly communicate guidelines around 'permitted development rights' to enable homeowners to undertake retrofit options without concern over planning permissions. We will explore producing a Supplementary Planning Document (SPD) to guide retrofit solutions, focusing on sustainability areas with crossover with retrofit.

#### What are the benefits

Decarbonising privately owned and rented housing will save money for local residents through reduced energy bills, as well as improving the comfort and health of their homes. Switching away from gas boilers on a large scale will also improve air quality, realising further health benefits. Supporting low-income households with energy efficiency improvements and tackling fuel poverty ensures that all residents benefit from net zero, while increased demand for retrofit will support jobs and the local retrofit economy.

#### Developing place based approaches to retrofit

#### Aim

Place-based approaches to retrofit are collaborative long-term approaches that address retrofit, operating in a defined geographic location to focus on local needs and the local context, involving multiple stakeholders. We aim to ensure that we develop opportunities for retrofit on a wider scale than individual homes by identifying opportunities and projects for decarbonisation of the borough's housing, attracting external funding and delivering retrofit and carbon emissions reduction at scale.

#### What's already in place

Place-based approaches are a new area of work, and so we need to explore best practice from other areas to inform these approaches locally. One example in Richmond upon Thames is the regeneration of Ham Close estate, replacing blocks of flats and building new affordable private housing as well as new public green spaces in partnership with Richmond Housing Partnership (RHP) and housebuilder the Hill Group. This work so far has involved extensive consultation with the community to ensure that the regeneration meets current and future housing needs and positively impacts the wider community, and shows how the Council can utilise a place-based approach that listens to residents' priorities for the place they live and work in.

#### What are we going to do

We will identify areas within Richmond upon Thames that would benefit most from placebased approaches to retrofitting, including residential areas with low energy efficiency, mixed housing stock and vulnerable populations so we are well-placed to take advantage of opportunities for wider place-based approaches to retrofit. We will explore and seek out partnerships with trusted organisations that can support and build the delivery of placebased approaches to retrofit and seek to attract the external funding, whether government funding or private investment, needed to be able to deliver retrofit at scale.

We will continue working with community energy groups to explore community energy projects and build a network of stakeholders to enable community energy on a wider scale. We will also identify potential areas for heat networks and learn from existing projects on heat networks to bring projects and solutions to Richmond upon Thames.

#### What are the benefits

Place-based approaches to retrofit offer co-benefits as wide scale net zero initiatives and approaches are brought into focus on one area. Reduced energy bills and increased home comfort is one, but increased resilience through building in climate adaptation as part of the place-based approach and greater community cohesion through from the redesign of public space are others benefits that can come from this approach.

#### Securing funding to decarbonise housing

#### Aim

Securing adequate and consistent funding is crucial as there is a significant cost associated with delivering retrofit on a wide scale. Richmond upon Thames to explore the various funding options to support borough-wide retrofit projects, including government grants, private investments, and innovative financing mechanisms and then attract the investment into the borough to support the delivery of decarbonising housing.

#### What's already in place

So far, we have brought in significant amounts of funding to support retrofit within Richmond upon Thames. While this is small in terms of the total needed, it has brought about real improvements for residents. Funding from central government as part of the Green Homes Grant Local Authority Delivery scheme has seen improvements to low energy efficiency and low-income homes.

Our cost-of-living funding has seen our Warm Home Packs project continued for the second year, distributing to more than 1400 households to reduce energy bills through improved energy efficiency.

#### What are we going to do

We will consider opportunities for innovative funding models within the Council to create ringfenced funding for retrofit within our areas of responsibility, while also exploring options to support funding for private households to carry out retrofitting. We will seek out and secure government grant funding, supported by a consistent campaign with residents on retrofitting and its benefits to create high interest in retrofit to best enable high take up in response to grant funding. We will explore opportunities to partner with the private sector to create public private partnerships to meet investment demand for retrofit within the borough and explore ways that we can facilitate resident investments to fund retrofit works within the borough and consider how we can use low-cost finance options to fund clean energy projects.

#### What are the benefits

Increased funding to enable delivery of retrofit and decarbonisation of housing will allow for investment in local areas, bringing economic benefits for the local economy and especially for employment delivering the schemes developed on the back of funding.

#### Supporting green skills to deliver retrofit

#### Aim

Retrofit requires skilled workers of which there is currently a shortage. We aim to show that there will be long-term demand for retrofit skills through consistent promotion and funding of the opportunities for retrofit and encourage education providers to invest in education and training in these areas. We want more local people to develop a career delivering the decarbonisation and retrofit of homes in their area.

#### What's already in place

In late 2023, London Borough of Richmond upon Thames joined a new collaboration with the South London Partnership and was successful in obtaining government funding to accelerate retrofit skills in the sub region. This enabled the Council to join forces with multi-sector partners including construction firms, housing, education and training providers to create a South London Retrofit Skills Action plan, written in partnership with the University of Roehampton, and subsequently develop a series of 20 pilot projects. The RetrofitSkills.org website for the sub-region was created as a one-stop shop to illustrate skills pathways, linked to local training providers, and to promote a series of SME and future supply chain audiences to discover opportunities available to them within Richmond upon Thames and the immediate surrounds.

#### What are we going to do

London Borough of Richmond upon Thames will continue to work in partnership on a subregional level as part of its work with the South London Partnership focusing on the already identified priorities of educating and engaging the market; skills and the workforce; research and innovation; finance and funding; policy, planning and structure; and data.

Working alongside education providers and at the sub-regional level as part of the South London Partnership Green Skills Academy, we will work to embed green skills within schools' career advice and work with education providers to demonstrate the long-term demand for green skills and to highlight the training and development opportunities within this sector. To demonstrate the demand and opportunities within retrofit, we will proactively engage with education providers and residents to raise the profile, importance and future of green skills in retrofit. We will use our position and existing partnerships to present information to residents and local businesses to showcase the opportunities within this sector, sparking economic growth and a strengthened supply and delivery chain.

#### What are the benefits

By supporting and promoting green skills linked to retrofit, more local people will be able access training, development and employment, supporting the local economy.

#### Driving decarbonisation through a retrofit taskforce

#### Aim

With the work of retrofit spanning many teams within the Council as well as organisations beyond, it is crucial we are collaborating, aligning and sharing our best practice to ensure we can encourage the decarbonisation of our borough's homes by 2043. We aim to work together to share best practice and information to shape retrofit programmes, recognising that presenting a unified approach creates trust in the information we are providing to partners and residents. We aim to work closely with local social housing providers to ensure the standard of home needed is provided to our residents, and that this standard evolves in line with our climate targets and national legislation.

#### What's already in place

We collaborated with the South London Partnership (SLP) to research barriers to retrofit in the able-to-pay market, identifying different behaviour groups among residents. An internal workshop with senior leadership established a baseline understanding of retrofit challenges and agreed on necessary components to address them. Throughout 2024, we participated in PPRB task and finish group meetings to incorporate residents' insights into our strategy. We built a network of officers across South London and London-wide to share best practices and learn from emerging technologies, while our partnership with the London Office of Technology and Innovation has raised our profile and identified opportunities for shared approaches. This collaboration has helped secure funding to develop our retrofit approach, enhancing our understanding of the borough's context. Following the workshop, a retrofit taskforce was established in late 2024, comprising officers from various teams to focus on retrofitting our buildings.

#### What are we going to do

We will put in place the knowledge, skills and capacity in the Council to be able to drive forward boroughwide retrofit, identifying gaps in resource and capacity and seeking to fill them where we can. We will ensure that collaboration is central to our retrofit and build on the established retrofit taskforce to bring together stakeholders and teams together.

Through the retrofit taskforce, we will explore opportunities to engage with all our housing providers to listen and understand the challenges to retrofitting and work with them to promote the decarbonisation of social housing across the borough. We will maintain and strengthen our partnership working with other local authorities to identify possible further actions and opportunities.

#### What are the benefits

Building on the retrofit taskforce and engaging stakeholders fosters collaboration, ensuring a unified approach to achieving climate targets. This collaboration helps in sharing knowledge, best practices, and innovative solutions.

#### Our travel and air – increasing sustainable travel and reducing air pollution

We need to increase sustainable travel in Richmond upon Thames in order to reduce carbon emissions that come from fossil fuel powered modes of transport. Walking and cycling are the least impactful modes of travel from a carbon emissions perspective and these need to be promoted and supported, alongside alternatives to internal combustion vehicles, whatever shape or form they may take.

#### Why do we need to take action

Carbon emissions from transport represents 27% of the carbon emissions for Richmond, which is the second highest amount of carbon emissions behind domestic buildings. Most of these emissions come from internal combustion engine vehicles that burn either petrol or diesel, therefore we need to take action to reduce transport related carbon emissions. Alternatives already exist in the form of electric vehicles, but simply swapping out a petrol car for an electric car will not be the solution as the resources needed to achieve this would require resource extraction on a scale we have not seen. Therefore we need to see a shift from private vehicles towards sustainable methods of travel such as public transport, cycling, walking and wheeling as a way to get around the borough.

Air pollution is still ranked as the third highest preventable cause of mortality in Richmond as well as contributing to many other diseases, from strokes and heart failure to asthma and cardio obstructive pulmonary disease. This is partly because UK Governments have repeatedly set unambitious targets for air pollution in the UK, while other countries have adopted the World Health Organisation's ambitious and progressive approach to air pollution improvement. Many of the sources of air pollution are the same as for carbon emissions – with internal combustion engine vehicles being one of the biggest culprits for jointly contributing to climate change and the worsening of people's health through air pollution.

#### What will Richmond upon Thames look like in 2030

In 2030, cycling and walking is far more common around the borough than it was as infrastructure has improved and people feel more comfortable getting around without a car. Richmond upon Thames is regarded as the cargo bike capital of London due to the number of cargo bikes being used, with businesses regularly using them for deliveries and families bringing back supermarket shops in them. Air quality has drastically improved, with most areas hitting the World Health Organisation targets that have been set, and we are seeing more and more EVs on the road.

#### What will Richmond upon Thames look like in 2043

Richmond upon Thames' roads will be noticeably quieter, making it easier to get around for businesses and local people who need to use a vehicle. The use of cycling, e-mobility, walking and public transport to get around has hugely increased and is now seen as the default unless you are going somewhere much further away that doesn't have good transport links. Electric vehicles aren't seen as EVs, they're just cars and vans and any petrol diesel or vehicles on the road stand out because of the smell and the noise. Car ownership is significantly reduced with a proliferation or car clubs and shared ownership, with owning more than one car is seen as highly unusual and for hobbyists. Streets are safer with deaths from traffic incidents almost unheard of and health has improved as air pollution is significantly reduced across the borough and people are more active.

#### Improving and increasing our walking, wheeling and cycling infrastructure

#### Aim

Walking, wheeling and cycling should be the natural choice for making local trips, including accessing local shops and town centres, travel to school and connecting to public transport. The highway network should support these trips, wherever possible, without the need for sign-posted routes. We have a target for 75% of trips to be by sustainable modes by 2041.

#### What's already in place

A significant amount of infrastructure is already in place, with cycle parking infrastructure in the form of bikehangars, bike hoops and stands for short term parking and the new cycle hub at Richmond upon Thames station. Improvements have been made to main cycling routes, including significant work at Strawberry Vale, alongside improvements and connection for routes using backstreets. Improved and increased crossings have been put in place to allow for more comfortable and safer walking and wheeling.

#### What are we going to do

We will make improvement to the highway infrastructure that increases connectivity and improve the attractiveness of local routes for cycling and walking. These interventions include additional safety and comfort improvements to footpaths and cycle paths throughout the borough as well as crossing points, lighting improvements, footway widening, junction improvements and the introduction of contra-flow cycling on one-way roads. Providing safe connections between local areas will create a porous, accommodating network suitable for all kinds of trips. Increased availability of cycle parking, both short term and secure long term, will increase safety. All this will be supported by increased communication on the routes and options available to residents and visitors and the benefits of walking and cycling, underpinned by an ambitious Transport Strategy that sets a long term vision to 2040.

#### What are the benefits

Walking and cycling are crucial for improving health as forms of active travel and also causes no air pollution, unlike many of the alternatives, so improving air quality and further improving health outcomes. These forms of transport are safer and less likely to cause fatal accidents and can also reduce congestion on the road, freeing up road space for businesses that need to use them.

#### Supporting and promoting mobility through e-bikes and e-cargo bikes

#### Aim

E-mobility, such as e-scooters and e-cargo bikes enable people to make journeys over short to middle distances, where it may not be possible for people to do that under own power, or where they may otherwise need to use a larger vehicle. Cargo bikes enable the sustainable transportation of produce and are ideal for a range of local services, including community waste collection and transporting younger children, replacing the car on the school run. Escooters and e-bikes can increase personal mobility options. Our aim is to provide the infrastructure and options for Richmond upon Thames residents and businesses to take full advantage of these transport options, enabling local mobility that is quick, easy and lowcarbon.

#### What's already in place

Infrastructure to support e-cargo bikes such as storage and hire availability has already been trialled in Richmond upon Thames, putting the borough at the forefront of cargo bikes in London. In addition, e-bike hire has been introduced and an e-scooter trial has taken place.

#### What are we going to do

To increase bicycle accessibility we'll offer affordable rentals of standard, electric, and cargo bikes. E-bikes will assist those who need help pedalling, while cargo bikes will enable quick, cheap transport of large items. We will test the feasibility of an e-cargo bike waste collection scheme for businesses alongside delivery lockers and consolidation to mitigate pollution from the growing number of home deliveries, setting up new delivery lockers or consolidation hubs and consulting residents on expanding the use of collection points and parcel lockers, especially at transport hubs and residential areas.

#### What are the benefits

Promoting e-mobility, such as e-bikes and e-cargo bikes, offers numerous co-benefits alongside reducing carbon emissions. By reducing tailpipe emissions, we will have cleaner air and a healthier environment. E-mobility can alleviate traffic congestion in urban areas, making commutes faster and more enjoyable. Additionally, e-bikes promote physical activity, improving overall health and well-being. E-cargo bikes provide a sustainable solution for transporting goods, reducing the need for delivery trucks and lowering operational costs for businesses. Furthermore, e-mobility options are often more affordable than traditional vehicles, making them accessible to a broader population.

#### Reducing our dependence on the internal combustion engine

#### Aim

Internal Combustion Engine vehicles are a significant source of greenhouse gas emissions, contributing to climate change and poor air quality. They emit pollutants such as nitrogen oxides (NOx) and particulate matter (PM), which are harmful to human health. Additionally, the reliance on fossil fuels for these vehicles exacerbates our dependence on non-renewable energy sources. While cars are useful tools for transport, the harm they cause means that we need to switch away from internal combustion engine vehicles and reduce car use in order to reach net zero and become a sustainable borough. We aim to reduce the number of internal combustion engine vehicles in the borough and reduce the number of privately owned vehicles in the borough overall.

#### What's already in place

A total of 945 public EV chargers have been installed across the borough, including over 850 lamp column chargers that are spread across the borough. Car clubs operate in the borough allowing people easy access to a vehicle without needing to own one. Electric buses have been introduced by transport for London on some of the key routes in the borough, with plans underway to electrify ore by 2030.

#### What are we going to do

We will continue to expand the EV charging infrastructure across the borough, allowing those who need a car or van to be able to easily have an EV rather than a petrol or diesel vehicle. This will require a range of charging options, from lower capacity lamppost chargers, through to higher capacity faster charging options, and options for easier home charging will be supported and encouraged. This will require collaboration with local power suppliers such as UK Power Networks, to ensure that there is sufficient capacity to be able to supply more vehicles with the clean power they need.

We will promote and support access to vehicles for those no longer need to own a private vehicle through promoting car clubs that prioritise EVs and review our approach to car parking to incentivise EVs and multiple car households. By working with TfL we will promote the electrification of buses on the routes that travel through Richmond upon Thames, improving the sustainability of public transport.

#### What are the benefits

By reducing the number of internal combustion engine vehicles on the road, we will improve air quality and reduce the public health risk caused by the pollution from vehicles, leading to improved health and wellbeing. Easier and more widely available shared access to vehicles via car clubs can also lead to reduced costs for residents who are struggling to afford to own and maintain a vehicle.

#### Improving the quality of the air we breathe

#### Aim

Air pollution is still ranked as the third highest preventable cause of mortality in Richmond upon Thames as well as contributing to many other diseases, from strokes and heart failure to asthma and cardio obstructive pulmonary disease. Our aim is to focus on improving the health and wellbeing of our communities by taking a practical approach to improving air quality, identifying areas where the Council can lead by example or take direct actions to improve air quality while being guided by the science and the data to focus our actions on hotspot areas and vulnerable populations.

#### What's already in place

Richmond upon Thames has an ambitious Air Quality Action Plan in place which links air quality, climate change and public health together to drive action on improving air quality. The Air Quality Action Plan touches on many of the same areas as this strategy and is a key component to taking action on climate change. The ambitious target to adhere to WHO standards on air quality is key driver for this work. As well as monitoring of air quality, activities such as promoting awareness on the risks of air quality to public health and targeted anti-idling campaigns, there is significant and well-recognised work on reducing air pollution from construction and on improving indoor air quality.

#### What are we going to do

We will improve monitoring and data collection of air quality to identify the groups of people, places and services that need the most improvement or will benefit the most or need the most protection, such as children or residents most vulnerable to air pollution, or the locations where people are most exposed. We will continue to raise awareness of the risks of air pollution, engaging with schools and vulnerable communities on how they can protect themselves, as well as encouraging less polluting behaviours amongst our residents through campaigns such as discouraging wood-burning. We will also tackle the unnecessary idling of cars through targeted campaigns and action at identified problem locations, and by introducing a new last-resort fine for engine-idling using newly introduced powers through Public Spaces Protection Orders which will be used to reinforce the positive fuel and emissions saving messages from our work to change behaviours. We will also deal with construction site machinery, or Non-Road Mobile Machinery, which are a substantial source of air pollution, by enforcing standards and encouraging take up of newer and less polluting equipment relying on clean site power such as electricity and hydrogen.

#### What are the benefits

There is a strong link between the sources of carbon emissions and the sources of air pollution, so by improving air quality there will be a reduction in carbon emissions. Improved air quality will have a direct health benefit to all residents of the borough, with a particular benefit for those who are most vulnerable and those who are most exposed, who typically are those who are less well-off in our communities.

# Our nature - protecting and enhancing biodiversity and green spaces

Locally, a number of climate change impacts are affecting Richmond upon Thames including drought, higher temperatures and more frequent storms. This puts our natural world that we know and admire under threat and forms part of the joint climate and nature emergencies. We need to protect our natural environments not just because it is an intrinsic good, but also because of the valuable role that the natural world plays in protecting us from a changing climate and for the physical and health benefits that we get from nature.

#### Why do we need to take action

The London Borough of Richmond upon Thames has the largest area of public open space per head of population of any London Borough, with a local and national reputation for excellent parks and green spaces. The protection, improvement and management of these spaces is of primary importance to the Borough's residents, who rate the quality of their environment as a priority. The Borough has a strong 'parks culture', with parks and open spaces highly valued as the hub for local communities for activities, events, sports and relaxation.

However, the quality of our green spaces is under threat from a changing climate. Increased drought is a significant impact for trees as their roots are unable to grow quick enough to reach the deeper water table levels, leading to reduced tree growth, crown die back and tree mortality. Climate change has fostered new opportunities for non-native invasive species, such as pathogens causing acute oak decline and the horse chestnut leaf miner moth which is present in most if not all horse chestnuts in the borough. These species thrive with the increased temperature that climate change brings, as non-native invasive species are not kept in a state of equilibrium by the environment as they would in their native range by natural and biological processes such as predation, seasonal climatic conditions and competition.

Evidence such as the World Wildlife Fund (WWF) State of Nature report, as well as studies and analysis carried out locally, show how our green spaces and the biodiversity within them are under pressure from a changing climate and need help to be sustained.

# What will Richmond upon Thames look like in 2030

Despite increased changes to our climate that negatively impact on our existing ecology, Richmond upon Thames' parks and open spaces are recognised as outstanding and enrich the quality of life of our residents and visitors. Parks and open spaces are well used and local communities feel an ownership and connection to them. Outside of parks, local people are increasingly interested in maintaining their own local environments, be that caring for trees in their street or planting native or climate adapted species in their gardens, with less paving over of front gardens. Data and maps on green spaces and biodiversity gives residents the information on how their natural environment works and how it connects.

# What will Richmond upon Thames look like in 2043

In 2043, the climate has now started to shift and extreme weather events are increasingly common. This has impacted on nature and biodiversity and nature in Richmond upon Thames, but because of the long term approach to planting and maintenance that has taken into account these changes, our parks and green spaces are flourishing, vibrant and well used, despite some of the species being different from what was there 20 years ago.

#### Improving the quality of green spaces

#### Aim

We aim to maintain and improve the quality of the green spaces we look after, ensuring they are attractive and well used, while also conserving, and where we can improving, the levels of biodiversity in those green spaces.

#### What's already in place

A period of significant investment has seen the standard of parks and facilities improve to be amongst the best in the country, as recognised by a series of prestigious awards such as Green Flag Awards for many of our parks. The Parks Service's commitment to ensuring the quality of parks and open spaces across the Borough remains at this level will continue to underpin decisions and actions proposed for the coming years. The Local Biodiversity Action Plan has delivered improvements to habitats around the borough.

#### What are we going to do

We will create biodiverse, climate adapted spaces that maximise the contribution that wildlife can make to tackling climate and nature emergencies, creating green spaces that all residents feel welcome and comfortable in using. We are committed to maintaining our open spaces as centres of excellence for sustainable management, reducing the environmental impact of our operations. We will continue to decrease our use of equipment and vehicles powered by fossil fuel. We will maximise reuse of our own green waste, and we will do more to avoid using chemicals which can further harm our environment, exploring and piloting less damaging alternatives.

We will support the development of a new Richmond Biodiversity Action Plan and support its delivery working alongside the Richmond Biodiversity Partnership and local Friends Groups, and will contribute to the creation of the Local Nature Recovery Strategy (LNRS) for the borough and London.

# What are the benefits

By maintaining and improving green spaces around we the borough, we will improve biodiversity, increase climate resilience and improve community cohesion through shared ownership of well-loved and enjoyed local spaces. Green spaces will also provide physical and mental health benefits for residents who use them, including improving air quality.

# Increasing and improving the natural connections across the borough

# Aim

We aim to improve the connectedness of nature across the borough by supporting and enhancing the corridors of biodiversity that weave throughout Richmond upon Thames, including rivers, trees and streets.

# What's already in place

London Borough of Richmond upon Thames has a Tree Policy in place which guides the approach to tree planting and maintenance across the borough. An annual programme of tree planting has seen over 2500 trees planted across the span of the previous Richmond Climate Emergency Strategy. Information on types of trees planted and the areas they are being planted in is available on the Council website.

On rivers, the Friends of the River Crane Environment (FORCE) is a community-based voluntary organisation dedicated to protecting and enhancing the River Crane and its surroundings. They focus on conservation, education, and community engagement. FORCE organizes volunteer events, educational programs, and habitat restoration projects to improve the local environment. The Beverley Brook Innovative Flood Resilience Project ("Community Bluescapes") uses a future-proofed neighbourhoods approach to flood resilience, utilising nature-based solutions to flood management. The Community Bluescapes project has delivered sustainable drainage systems as well as new reed beds on Barnes Common to manage high river levels.

# What are we going to do

We will facilitate connective networks of green infrastructure, creating micro-biodiversity sites that improve resilience against the negative impacts of climate change and promote nature. We will maintain our street trees and increase their number, to maximise their environmental benefits. We will map out biodiversity connections across the borough so that residents can understand how these are interlinked and enjoy the various benefits of cool shade, shelter from rain, or simply enjoy the beauty of trees and green spaces as they go around the borough. We will protect the unique local rivers that connect areas of our borough together and work to enhance their habitats.

# What are the benefits

By increasing the connectedness of nature across the borough we will support biodiversity, allowing species to move around the borough to different habitats. Green and blue corridors can also create areas and routes that offer shade in overheating events and shelter during rain events, while also reducing flooding risk. These corridors can also provide physical and mental health benefits for residents who use them, as well as improving air quality.

#### Increasing knowledge and awareness of nature

#### Aim

We aim to increase our residents' and communities' knowledge and awareness of nature, how they can support and encourage nature and what they can do to promote in their own local environment.

#### What's already in place

Communications on biodiversity have been delivered and information updated on the Council website with a focus on actions that can be taken (including regulations on crossovers, protecting front gardens, planting native species in gardens and encouraging wildlife). Some highlights include a campaign at Halloween about properly disposing of fake webbing in bushes/at front of houses (and avoidance for future years) to protect local wildlife, amplification of national schemes/initiatives like National Education Nature Park and No Mow May and promotion of the Council's work to support local biodiversity. This has included restoration of Native Black poplars, reintroduction of water voles to Crane Park and upcoming work on Dark Skies/reptiles and amphibians plans.

#### What are we going to do

We will increase our communications on actions that residents and communities can take to support nature and biodiversity in the borough, building on discussions held at the Biodiversity Community Assembly held in December 2023. This will include information on how they can take individual action to support nature in their own gardens and streets, as well as the benefits of taking this action. We will encourage residents to not pave over gardens and to instead maintain and improve the biodiversity of their gardens and local areas and support and encourage local community groups to help maintain and improve their local areas.

#### What are the benefits

By encouraging and supporting residents to participate in looking after their local green spaces, we will promote community cohesion and a sense of ownership for local people.

#### Renewing our relationship with nature

# Aim

We aim to increase the connectedness that local people feel to their natural environment, through volunteering and taking part in the maintenance of local green spaces, or by exploring some of the cultural ties that link nature, our environment, our local history and our stories together.

# What's already in place

Friends and other community groups are one of the greatest strengths of parks and open spaces in Richmond upon Thames. The strong relationship between the Borough and Friends groups and the level of participation by local people in parks and open spaces has been instrumental in our success. Friends groups help support our work in managing parks and other open spaces, with groups spread across the whole borough.

The Cultural Reforesting programme at Orleans House Gallery is an initiative aimed at renewing our relationship with nature. It involves a series of artist-led, multi-disciplinary projects and participatory events that explore environmental justice, biodiversity, and climate solutions. The program began in May 2021 and continues to evolve with new exhibitions and projects. One of the key aspects is collaboration between artists, scientists, and the community to find local solutions to the ecological crises of our time. The gallery's vibrant grounds provide a perfect setting for these activities, making it a place for hope, creativity, and action.

# What are we going to do

We will encourage an increase in the capacity of some of our Friends groups by enabling greater involvement at all levels in the management and maintenance of our open spaces. We understand that the membership and ability to participate will vary between groups. There are good reasons for this, as all voluntary groups are dependent on individuals. We will encourage and offer support to all our Friends groups to take a more active role. We will encourage Friends groups to work together, to share expertise and knowledge, and become more pro-active and self-sufficient in their activities.

We will continue to deliver the Cultural Reforesting programme through until 2030, linking to together communities, nature and culture in imaginative ways.

# What are the benefits

By encouraging and supporting groups to participate in looking after their local green spaces, we will promote community cohesion and a sense of ownership for local people. Physical and mental health benefits will come from increased activity in natural spaces.

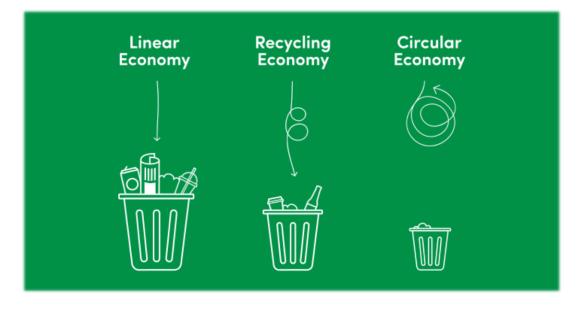
# Our resources - moving to a zero-waste economy

Over the past couple of centuries, the modern economy has developed into what is today a wasteful, linear economy. The linear economic model is generally characterised by economic activities that follow a take-make-dispose or take-make-consume-throw away pattern. In a linear economy, material flows form a straight line towards becoming waste: extracting raw materials from the natural environment, processing them to produce market-ready products or final goods, marketing these goods for consumption, and disposing of these goods or whatever derivatives remain after the end of their product lifecycle.

A circular economy, as set out by ReLondon, is one in which stuff is kept in use for as long as possible, delivering the highest value it can, for as long as it can. So rather than making, using and then throwing stuff away (a linear system), a circular economy means looking at each of those stages for new ways of cycling materials and value back into the system – using materials and products again and again, in many different forms.

# Why do we need to take action

The transition to a zero-waste and circular economy is an essential part of addressing the climate crisis. 45% of global CO2e emissions arise from the manufacture, consumption and disposal of products and materials. There are many opportunities to implement circular business models and commit to behavioural changes which will be essential to meeting our climate commitments and avoiding the worst impacts of climate change. Circular solutions which are simple to implement will have immensely positive impacts and co-benefits for a variety of areas, from health and wellbeing, to biodiversity, economic growth, and community cohesion.



What will Richmond upon Thames look like in 2030

The circular economy hub is a focal point for zero-waste and circular economy activity, bringing together groups and communities to share skills and knowledge. Reuse and repair is a growing movement across the borough as people try to reduce their waste, reduce their plastic use and prolong the lives of items. Our waste and recycling service will have dramatically cut the carbon emissions from its operations and our recycling rates will have increased.

#### What will Richmond upon Thames look like in 2043

In 2043, circular community hubs in Richmond upon Thames are dynamic centres of activity and innovation. These hubs are designed to be multifunctional spaces where residents can gather to share skills, resources, and ideas. They host regular workshops on upcycling, composting, and sustainable living practices, empowering individuals to take an active role in the circular economy. Repair cafes within these hubs offer tools and expertise to fix broken items, reducing waste and fostering a culture of maintenance and longevity. Additionally, swap shops and lending libraries allow people to exchange goods and borrow items, promoting a sharing economy that strengthens community bonds and reduces the need for new products. These vibrant hubs support environmental sustainability and enhance social cohesion and local resilience.

# An easy to use, effective and low carbon waste and recycling service

# Aim

Waste collection is one of the key services that the majority of Richmond upon Thames residents use and for many is the service that they make use of the most. Our aim is to maintain and improve our waste collection offer so it is easy to use and provides an excellent range of ways for residents to dispose of unwanted materials in a way that maximises the amount that can be reused, repurposed and recycled. We also aim to reduce the impact that the collection of waste has by reducing the carbon and other environmental impacts from our vehicles and service in general.

# What's already in place

The Council provides weekly waste collections for all households alongside weekly dry recycling collection services. Kerbside households excluding flats above shops also receive weekly food waste recycling collections. Food waste collections are being rolled out to other flats using communal bins where practicable & agreed with managing agents. The Council also provides a subscription-based garden waste collection service for composting and the Council also hosts a network of 40 charity textile banks on land it controls. Alongside this we already have in place on street recycling facilities for card, glass and other materials as well as electrical recycling facilities at some of these sites. Mega skip events are held regularly to enable residents to dispose of larger unwanted items, supported by Richmond Furniture Scheme who can repair and reuse unwanted furniture.

# What are we going to do

We will continue to improve the waste collection offer by increasing the number of households that have their food waste collected, communicate with residents about how they can better recycle and reuse items and expand the ways that people can dispose of unwanted materials. We will be responsive to the legislative and regulatory changes that are heading our way, including Extended Producer Responsibility and Deposit Return Schemes, ensuring that we are seizing the opportunities these present to us. We will develop a plan for reducing carbon emissions from our fleet of vehicles used to deliver the waste service and start to roll that out.

# What are the benefits

Improved waste services, especially on recycling and food waste, will reduce the amount of residual waste and increase the amount that that can be repurposed and lower volumes of residual waste mean a lower carbon impact from our waste. Taking sustainable actions on waste at home can lead to other more sustainable behaviours in the longer term, acting as a catalyst. A waste fleet that no longer relies on diesel will improve air quality throughout the borough, leading to improved health outcomes.

#### Creating the infrastructure for a zero waste economy

# Aim

We aim to create the local community infrastructure needed to be able to support a circular, zero waste economy. This will enable residents to be able to access circular economy services and offers, as well as supporting local organisations that focuses on reuse, repair and waste reduction by having a base that they can use and potentially operate from over the medium to long term.

# What's already in place

The Household Reuse and Recycling Centre at Townmead is the main recycling centre for Richmond upon Thames and is available for residents to use for free, allowing residents to recycle a wide range of items that are not always collected as part of household recycling. A Library of Things was introduced at Patch in Twickenham in 2023 which provides a range of household items that can be borrowed for a low fee, including carpet cleaner, tools, tents and kitchen equipment. This enables residents to avoid buying items that they only use occasionally, cutting carbon emissions from purchases, promoting reuse and saving money.

# What are we going to do

We will establish a Circular Economy Hub in Richmond upon Thames, which will provide a focal point for circular economy and zero waste activity in the borough. The Circular Economy Hub will deliver repair and reuse services as well as training for residents and community groups, alongside the chance for residents to buy reused and refurbished items. The Hub will be self-sustaining in the long term, generating its own income so that it can be maintained and potentially grow.

#### What are the benefits

Building the infrastructure for a circular economy will reduce waste through increased reuse and repair of items, leading to reduced carbon emissions, as well as more jobs and economic activity in the zero waste and green sector. In addition, the commissioning of a Circular Economy Hub will bring social value to Richmond upon Thames.

#### Encouraging and supporting residents to take part in a zero waste economy

# Aim

Our aim is to foster a zero waste economy within our communities by encouraging and supporting residents to minimise waste and embrace sustainable consumption practices. By promoting a zero waste culture and community led circular activities such as repair events, we aim to create a resilient, sustainable, and thriving community that prioritises responsible consumption and social equity.

# What's already in place

In 2024, we launched the borough's first 'Library of Things' in Patch in Twickenham providing an easy to rent facility of useful resources to help with DIY, hobbies and entertainment. This resource encourages people to learn new repair skills (such as power drills and sewing machines), provides an alternative to buying bulky and rarely used items (such as carpet cleaners) and encourages creativity through repair and share.

Residents in Richmond upon Thames are already active in the zero waste economy, with active take up of recycling and reuse services provided by the Council. Groups and projects such as Real Junk Food Project, Twickenham Repair Café, Richmond Furniture Scheme and Makers United provide reuse and repair opportunities for residents and communities. The Council has supported this work by regularly promoting events through its communications.

# What are we going to do

We will promote community activity on zero waste through supporting and promoting activities, projects and schemes run by residents that tackle waste, such as repair cafes where residents can bring broken items to be fixed by volunteers and swap shops where residents can exchange items they no longer need for something they do, promoting reuse and reducing the need for new purchases. To support this we will establish a reuse and repair network that brings together those in the community active on reducing waste so they can share ideas, projects, and foster collaboration.

To support this we will ensure that we are communicating regularly about the opportunities that are available to residents, promoting events and projects and emphasising the benefits for residents and for our climate goals. We will also campaign against the proliferation of single use plastics, encouraging all residents to avoid disposable plastics wherever they can, while recognising that some people may need to use single use plastics for health or welfare reasons.

# What are the benefits

By promoting and encouraging community activity on zero waste and the circular economy, we will build community skills and connections. Reuse and repair and reducing waste can bring economic benefits for residents who do not need to purchase new items, while reducing the carbon emissions associated with the purchasing and manufacture of new goods and products. This approach will also foster community resilience by promoting local solutions and self-sufficiency.

# Collaborating and partnership working to promote a zero-waste and circular economy

# Aim

We will work in partnership with community organisations, businesses and other partner organisations to promote zero-waste and circular economy approaches, encouraging them to take action on reducing waste, promoting reuse and providing leadership as a key local institution on the transition to a circular economy.

# What's already in place

Groups and projects such as Real Junk Food Project, Twickenham Repair Café, Richmond Furniture Scheme and Makers United provide reuse and repair opportunities for residents and communities. The Council has supported this work by working in partnership with these and other groups in the borough. In addition, the Council has played a leading role in the One World Living Programme, one of London Councils' 7 climate programmes, which has a focus on the circular economy.

# What are we going to do

We will continue to play a leading part in the pan-London One World Living programme focused on reducing London's consumption-based emissions, including leading on the plastics workstream as part of this and progressing actions to reduce waste, in particular single use plastics, from our own operations. We will collaborate with local businesses to promote zero waste practices, encouraging businesses to reduce packaging, offer refill stations, and participate in take-back programs for products and packaging. We will also support community organisations to take part in the circular economy, encouraging links between those at the start of their journey and those who are already taking part in the zero waste economy.

# What are the benefits

By promoting and encouraging sustainable local businesses we will see economic benefits through supporting local businesses, share resources, and building stronger community networks

# Our resilience – preparing for a changing climate

We are working to adapt and increase the resilience of the borough to the impacts of climate change. As a Council, this work is vital to ensure we are able to continue delivering our services, despite the risks that climate change poses. Furthermore, London Borough of Richmond upon Thames has developed an Adaptation and Resilience Strategy to inform this work and ensure we are using a consistent and robust approach to climate adaptation and resilience across all Council teams.

# Why do we need to take action

Our climate has already changed, with further and more extreme changes projected in future. Average annual temperatures have already risen by over 3°C and could rise by a further 5.1°C by the end of the century. Precipitation patterns are becoming more extreme, with summer precipitation decreasing and winter precipitation increasing. A continuation of these trends is expected in future, with summer precipitation potentially decreasing by as much as 54.3% and winter precipitation increasing by as much as 27.5% by the end of the century. Sea levels could rise by up to 0.8m in London by 2100; fire danger days could occur 82 times a year in London; and humidity could increase by 26% across the borough by the end of the century. These changes pose a significant threat to Richmond upon Thames. To reduce these risks, action must be taken now to adapt to our changing climate and to increase the resilience of the borough to these changes.

# What will Richmond upon Thames look like in 2030

By 2030, Richmond upon Thames will be a leader in adaptation and resilience. Climaterelated risks will be known and understood by all stakeholders, including the public and most especially those who are particularly vulnerable to climate change. Measures will be well underway to reduce the impacts of climate change, including nature-based solutions, SUDS, and public refuges. Adaptation and resilience will be imbedded into the organisational working of the Council, maximising opportunities for measures to be implemented.

# What will Richmond upon Thames look like in 2043

Richmond Upon Thames will be a sponge city and borough. The widespread implementation of nature-based solutions to hold water and slow the flow will have been completed. Hard-standing surfaces will have been replaced with permeable surfaces and gardens and driveways will be havens for nature and used to hold and slow surface water flows. Cool routes using trees will also have been rolled out across the borough, enabling people to travel safely during high temperatures. Homes will have been retrofitted to protect residents from extreme events and be actively contributing to reducing climate-related risks, such as through the installation of green roofs, rain gardens and SuDS. Early warning systems will be in place for all climate-related risks and all partners will be working together to minimise the impacts of climate change and monitor potential emerging risks so these can be addressed early.

# Embedding adaptation and resilience across the Council

# Aim

Ensure decision-making on adaptation and resilience is owned at strategic level and responsibility assigned, so that progress on adaptation and resilience is monitored and that responsible teams are accountable. Continue and expand training for internal officers on climate change impacts, adaptation and resilience, to support teams working directly and indirectly in this space and embed this work across the organisation.

# What's already in place

The Council has already established its own internal governance for overseeing the delivery of climate action, including monitoring progress on the Council's climate targets and allocating internal funding for projects to support climate and sustainability objectives, alongside a governance process for the development and delivery of infrastructure projects.

# What are we going to do

The Council will embed climate adaptation and resilience within its internal governance, ensuring that projects and proposals are using the Adaptation and Resilience Framework (as detailed in the Adaptation and Resilience Strategy). The Council will continue to roll out its Carbon Literacy Training for internal officers which will increase knowledge on the importance of climate adaptation and resilience, and will scope how best to further support officers working directly and indirectly on climate adaptation and resilience.

# What are the benefits

By embedding adaptation and resilience across the organisation, opportunities and cobenefits will be maximised. All projects will be required to consider how adaptation and resilience measures can be included, thus supporting the wider rollout of adaptation and resilience across all areas of work in the borough where they might not otherwise have been considered.

# Ensuring a joined-up approach to adaptation and resilience

# Aim

Identify and leverage opportunities to increase funding and maximise efficiencies around adaptation and resilience work. Work with internal and external local and pan-London partners to reduce climate impacts, ensure a consistent approach to adaptation across all boroughs, and promote more joined-up working.

# What's already in place

London Borough of Richmond upon Thames is part of the London Councils Resilient and Green workstream, which is working with other London boroughs to rollout adaptation and resilience measures, including data, information, and resources.

# What are we going to do

The lack of funding for adaptation and resilience work is a significant barrier for local authorities. The Council will work to overcome this by leveraging external funding opportunities; increasing efficiencies by embedding adaptation and resilience across the Council; and continuing and expanding partnership working with external stakeholders locally, regionally and nationally to identify potential opportunities for collaborative working and funding. Greater collaboration with a range of internal and external stakeholders will help promote a more joined-up approach and enable a place-based approach to adaptation and resilience.

# What are the benefits

A joined-up approach will maximise opportunities to ensure co-benefits are realised, including economic savings.

# Using data to adapt to a changing climate and increase the resilience of the borough

# Aim

Understand the proportion of residential, commercial, and service buildings at risk from climate extremes and implement retrofit measures to reduce these risks. Map and establish public refuges accessible during extreme weather events. Understand and monitor the impact of climate change on critical infrastructure. Use data and mapping to enable joined-up thinking and information sharing across the organisation.

# What's already in place

London Borough of Richmond upon Thames published its Climate Risk Map in 2023, which maps exposures to different climate-related hazards and social vulnerabilities that exacerbate the impacts of these exposures. Overall risk is also presented, accounting for the combined impacts of exposure and vulnerability.

# What are we going to do

All buildings will require retrofitting in order to meet the London Borough of Richmond upon Thames' target to be a net zero borough by 2043, but also to ensure that these buildings are resilient to extreme weather events. Map and establish public refuges for the public to use during extreme events. Map the potential climate-related risks on infrastructure and work with relevant stakeholders to identify and rollout adaptation measures to reduce risks to critical infrastructure. Explore how best to ensure all teams have knowledge of and access to climate-related mapping and data information, and scope options for incorporating and expanding the data to inform adaptation and resilience measures.

# What are the benefits

Adaptation and resilience will be incorporated into borough-wide retrofit targets, supporting the attainment of the borough's net zero target. A fuller understanding of the intricacies of climate impacts will be developed, helping to broaden and maximise opportunities for interventions and reduce vulnerabilities that could worsen the impacts of climate change for some

Implementing effective, nature-based adaptation and resilience measures across the borough

#### Aim

Prioritise nature-based solutions and maximise co-benefits. Undertake public information campaigns on the impacts of climate change and associated risks. Ensure robust and effective early-warning systems are in place.

#### What's already in place

Community Bluescapes is implementing natural flood management in the Beverley Brook catchment. The range of nature-based solutions implemented are being co-developed with the community to maximise co-benefits.

# What are we going to do

The Council will prioritise nature-based solutions in its approach to adapting to climate change, including measures to promote urban cooling, effectively store and manage water, natural flood management strategies, and habitat management. Improving public awareness of the range of risks associated with climate change is essential. In particular, exposed and vulnerable populations will be engaged with and supported in implementing measures that reduce their vulnerability to climate impacts. The Council will assess the current systems around extreme events and ensure that robust and effective early warning systems are in place.

# What are the benefits

Nature-based solutions offer a wealth of co-benefits, including increased space for wildlife; improve mental and physical health; and improved ecosystem services (such as air and water quality). Prioritising vulnerable populations will also support a Just Transition in our work, by actively improving people's lives as we tackle the climate crisis.

# Monitoring and evaluation of adaptation and resilience

# Aim

Review and assess the costs and benefits associated with climate impacts and adaptation in Richmond upon Thames. Continue to use external frameworks to validate, report and support our work on adaptation and resilience. Monitor, assess and prepare for potential global shocks associated with climate change.

# What's already in place

The Council reports annually to the Carbon Disclosure Project (CDP), which is an independent expert organisation who analyse local authorities' actions on climate change. London Borough of Richmond upon Thames has achieved an A-rating (the highest) for the past two years.

# What are we going to do

The Council will regularly review and assess the costs and benefits associated with the impacts of climate change and adaptation and resilience, to continually improve understanding of action and investments required and the long-term savings associated with this investment. The Council will continue to use and identify opportunities for validating, reporting and supporting its work on adaptation and resilience, including CDP. Global shocks are likely to affect the borough, so we will monitor, assess and prepare for these potential global shocks, to ensure the systems are in place to mitigate these impacts should they occur.

# What are the benefits

Cost-benefit analysis will help quantify the co-benefits of adaptation and resilience interventions, including economic savings and decreased health impacts from risk reduction.

# **Accelerating actions**

The two areas outlined below contain actions that the Council can take to accelerate and facilitate progress against the earlier 5 key action areas:

# Our Council – becoming a carbon neutral and climate ready organisation by 2030

As part of our work to make the borough net zero by 2043, we as the Council need to take the lead in reducing our own carbon emissions and ensuring that our staff are equipped with the skills and knowledge needed to take action on climate change. Residents expect us to lead by example in reducing carbon emissions and being pioneers in tackling the climate emergency. By working to decarbonise our buildings and vehicles and by reducing our carbon emissions from procurement the Council will be able to show leadership on climate action to everybody in the borough.

#### Why do we need to take action

While local authorities typically only represent around 2% of the carbon emissions from their local area, they have a responsibility as local leaders to show how organisations can set ambitious goals on climate change and take action in pursuing their goals.

Richmond Carbon Emissions (tCO2e)	2018/19 (Baseline)	2022/23	2023/24
Scope 1 (Gas and vehicle and plant fuel)	2,958	2,372	2,100
Scope 2 (Electricity)	3,456	0 (location-based emissions 1,631)	0 (location-based emissions 1,698)
Total Carbon Emissions	6,414	2,372	2,100

The carbon emissions for the Council are set out below:

This shows an overall decrease in emissions for the most recent years of 2022/23 and 2023/24 and a decrease compared to our baseline year of 2018/19, with a decrease of 67.3% since 2018/19. This includes a 29% reduction in scope 1 emissions, which reflects the reduction in gas consumption in Council buildings.

Scope 2 emissions have been reduced to zero due to the Council purchasing zero carbon electricity, which started in October 2020 and was renewed as part of the procurement of the Council's energy contract. Location-based emissions figures are also provided to demonstrate the Scope 2 emissions associated with reliance on the National Grid. As more on-site renewable generation for power and heat is introduced, such as solar panels, battery storage and heat pumps, over time the Council will be able to reduce its use of electricity from the national grid and therefore reduce location-based emissions alongside maintaining zero emissions from its purchasing.

Scope 3 emissions are all indirect emissions not included in Scope 2 emissions, which occur upstream and downstream of an organisation. The Council commissioned an analysis of its

Scope 3 emissions from its procurement spend, which found that these Scope 3 emissions equated to 10,671 tonnes CO2e. The carbon intensity of the Council's procurement spend is lower than average compared with other organisations who have done this analysis (e.g., NHS and local authorities). The top 10 suppliers account for 56% of these emissions and the top 100 suppliers account for 94% of these emissions.

# What will Richmond upon Thames look like in 2030

By 2030 the Council will be carbon neutral as an organisation – meaning that we will have significantly reduced our Scope 1 and 2 carbon emissions and be offsetting any remaining carbon emissions. Our buildings will be energy efficient, use electrified heating sources and generate our own power through solar panels and our vehicle fleet will be electrified. Our fleet of vehicles will be largely electric, with only vehicles that have no viable alternative remaining fossil fuelled. We will have set a target on reducing the carbon emissions from our Scope 3 emissions and we will have made significant progress in reducing those emissions and our workforce will be armed with knowledge about the challenges of climate change and the skills needed to reduce carbon emissions.

# What will Richmond upon Thames look like in 2043

In 2043, the Council will be well on its way to being a zero carbon organisation. Our buildings will all be highly energy efficient and no fossil fuels will be used to heat or power any building. The fleet will be fully decarbonised, with fewer larger vehicles and more smaller vehicles such as e-cargo bikes to carry out the Council's work. Our Scope 3 emissions will be significantly reduced as suppliers and providers decarbonise themselves.

# Decarbonising Council Buildings

# Aim

Our aim is to decarbonise our Council buildings so we can reduce our carbon emissions from as many buildings as possible through improving the energy efficiency of buildings, improving the fabric, installing better building controls, and switching away from gas heating towards electrified heat pumps, in line with our target of being a carbon neutral organisation by 2030.

# What's already in place

Work has already taken place on some Council buildings to reduce energy use by improving the energy efficiency of the buildings and to reduce carbon emissions by switching away from gas heating. This has included significant work at major buildings such as Orleans House Gallery, the Central Depot, Heatham House Youth Centre and Twickenham Civic Centre. This has been enabled by the allocation of Council capital funding and the securing of external funding, primarily through the government's Public Sector Decarbonisation Scheme. A Decarbonisation Strategy has been developed which sets out a pathway to reducing carbon emissions from the Council's operational buildings, based on extensive Heat Decarbonisation Plans for the 27 top energy using sites in our portfolio, and delivery against the recommended pathway set out will make a significant contribution towards our goal of being a carbon neutral organisation by 2030.

# What are we going to do

We will deliver on our Decarbonisation Strategy, taking a whole building approach and achieving full decarbonisation of our top 10 energy consuming sites, including energy efficiency and building fabric improvements, renewable energy generation and switching away from gas heating to electrified heat pumps. We will also install lighter touch decarbonisation measures across the rest of our portfolio, installing appropriate measures to improve building performance and reduce carbon emissions for lower costs and with less disruption. This approach will significantly cut carbon neutral organisation by 2030.

We will enter into a Power Purchase Agreement (PPA) to ensure that we are purchasing the majority of our electricity needs from a dedicated renewable electricity generator, securing our reduced Scope 2 emissions from electricity. We will also pursue all external funding opportunities to maximise the amount of decarbonisation work that we can deliver using Council funding, including bidding for government funding such as Public Sector Decarbonisation Scheme, Low Carbon Skills Fund, Sports England and future avenues through Great British Energy.

# What are the benefits

While reducing carbon emissions is the primary benefit we are seeking here, we will also be able to reduce the long term energy costs for the Council, giving reduced ongoing costs for the organisation and allowing us to weather the impacts of any future increases to the price of energy. By moving away from gas fired boilers, we will also be improving local air quality and improving the health for staff and local residents.

# **Decarbonising Council Vehicles**

# Aim

Our aim is to move our fleet away from fossil fuel based vehicles and to decarbonise the fleet of vehicles we use to deliver services by switching to sustainable fuel sources such as electricity and hydrogen for all of our vehicles where this is possible.

# What's already in place

The Council is early in its journey to decarbonise its fleet and switch away from fossil fuel driven vehicles, however a thorough analysis of the fleet has taken place which analysed fleet baselines, zero emissions performance and operating range suitability, fleet infrastructure requirements, fleet replacement cost of ownership and emissions savings. This analysis and the plan set out highlights the decarbonisation of vehicles will save money within 5 years of investment, owing to the lower operating costs of EVs. Some EVs are already in place and some teams have switched away from cars and vans to use ecargo bikes instead.

# What are we going to do

We will ensure that when existing vehicles need to be replaced they are done so by the most sustainable forms of transport, including by walking, cycling or public transport where the task permits, and by low carbon alternatives to internal combustion engine vehicles such as EVs where they can't. To support this, we will install the charging infrastructure needed to support an electrified fleet. We will support a move away from larger vehicles by promoting more sustainable methods of travel such as bikes, e-bikes and cargo bikes where these can be used.

#### What are the benefits

Benefits will come from the reduction in air pollution from internal combustion engine vehicles, which will have positive impacts on health for both residents and staff. There will also be longer term cost savings for the Council as EVs have lower running costs than internal combustion engine vehicles and a much lower lifetime cost for the vehicle. Moving away from larger vehicles such as vans and cars to sustainable or active travel will also reduce air pollution from particulates associated with wear and tear of wheels and brakes as well as giving health benefits for staff.

# **Decarbonising Council Procurement**

# Aim

The Council spends an estimated £183.5m per year on procurement with a further £111.4m spend on joint procurement with other local authorities, purchasing goods and services ranging from stationery to IT equipment, to places in care homes for vulnerable people. Our aim is to reduce the carbon impact of our spend on vital services for the people and communities of Richmond upon Thames by working with suppliers and providers who are reducing their carbon emissions and have made commitments to work sustainably and reduce them in the future.

# What's already in place

So we can maximise the value from our procurement spend, the Council has implemented a Social Value approach to procurement, and developed a Social Value Toolkit, a guide for utilising Social Value in procurement to improve the Social, Economic and Environmental wellbeing of our Borough and support the delivery of Council priorities. To support the implementation of Social Value, we have expanded our procurement team with specialist focused on Social Value. We have carried out a Scope 3 analysis on our procurement spend, which has given us a figure for our carbon emissions from our procurement and identified our top 10 and top 100 carbon emitters in our supply chain. We have also implemented the West London Low Carbon Procurement Toolkit, developed through joint work by a consortium of West London local authorities, which has been introduced for the procurement of contracts where appropriate and where applicable will be an evaluated component of the procurement, and suppliers asked to sign the charter.

# What are we going to do

We will develop and set a target for our Scope 3 emissions, those carbon emissions that come indirectly from our activity such as our purchasing of goods and services. To enable this to happen we will develop a methodology for measuring and tracking our Scope 3 emissions. We will work with our existing suppliers who generate the most carbon emissions to encourage them to reduce their carbon emissions. We will further embed the West London Low Carbon Procurement Toolkit approach within our procurement and develop a Responsible Procurement Stratgey which will further embed our approach to Social Value within our procurement as an organisation, maximising the impact from the money that we spend.

# What are the benefits

By using our spend on Council goods and services in a more responsible and sustainable way, we will be better able to support our local economy in Richmond upon Thames, supporting sustainable local businesses and creating employment opportunities for local people.

# A climate change ready organisation

# Aim

Our aim is to ensure that the Council is a climate-ready organisation, equipped with the knowledge, data, skills and governance to take serious action on climate change and prepare for a changing climate.

# What's already in place

We have already delivered significant amounts of Carbon Literacy training to staff, becoming a Bronze level Carbon Literate Organisation with 130 members of staff trained, equipping with the knowledge and understanding on the causes of climate change, it's impacts and the actions that we can take to address it. We have also communicated with staff about climate change, highlighting the work that we do across the borough and launched a Sustainability Network to bring together officers who are working on climate change related projects. We have also established the governance needed to oversee the delivery of action on climate change, with a Climate Change Steering Group made up of senior officers from across the organisation making decisions and holding each other to account on our climate change work.

# What are we going to do

We will continue to deliver Carbon Literacy training to staff, reaching and maintaining Silver level Carbon Literate Organisation. We will further develop the skills and knowledge of our staff, leveraging existing links with leading organisations such as IEMA to identify where we can enhance our specialist skills on climate change. We will also support our Councillors with training to ensure they can take decisions based on sound knowledge of the causes and impacts of climate change and how to address it. We will continue to grow our Sustainability Network for officers in the organisation and communicate more about climate change with our staff, so that everyone feels they have the knowledge to take action on climate change. We will continue to improve our governance on climate change, ensuring that the decisions that we take around climate change are based on the best evidence, supported by better data on carbon emissions and climate change related performance indicators.

# What are the benefits

By building climate resilience into our operations, we will be better prepared to withstand and recover from climate-related disruptions, ensuring continuity of services. By being proactive on climate action we can reduce costs by identifying sustainable long term solutions. Demonstrating leadership in climate action will enhance our reputation, attract partnerships, and position us as a forward-thinking authority committed to sustainability and climate action.

# **Our communities – supporting climate action across the borough**

Richmond upon Thames has a rich ecosystem of community driven climate action from the multitude of community and 'Friends of Parks' groups, active sharing & swapping social network and WhatsApp groups, budding 'eco committees' in schools and 'green' enterprises and initiatives. Our goal is to support and nurture this existing appetite and infrastructure, support its growth and facilitate opportunities for the scale and impact to increase.

#### Why do we need to take action

Communities are at the heart of climate action in Richmond upon Thames and are a driver of change towards low carbon living and creating a climate resilient borough. Our residents and partner organisations are asking us for support particularly in taking action to protect our borough from the direct impacts of climate change and to help invest in nature, parks and green spaces.

# What will Richmond upon Thames look like in 2030

We will have a growing ecosystem of residents and communities driven by a shared ambition and agency for action towards create a greener thriving borough for all. We will have a growing awareness of the individual and collective responsibilities for low carbon living and a healthy open dialogue between residents, the Council and public and private sector partners addressing the system challenges together.

# What will Richmond upon Thames look like in 2043

When we reach our 2043 Net Zero borough target, our homes will be more comfortable to live in and affordable to heat, and our neighbourhoods greener, our air cleaner and the health and wellbeing of our communities, greater. Our land and infrastructure will be able to respond to the varying seasonal extremes of rainfall and temperature. Our services will be responsive to the changing needs of our population and able to support those particularly at risk of a changing climate. We will have thriving green corridors, rich in biodiversity and habitat for our wildlife. We will be seen as global leaders in our nature and community based solutions in building a resilient and thriving local ecosystem in response to the ecological crises.

# Communicating on Climate Change

# Aim

We aim to provide clarity of information to our residents around the actions we are taking as a Council, the actions individuals, organisations and businesses can take, and why, and to make it easier for people to make low carbon choices in their everyday by providing them with the tools and support they need. We aim to better listen and respond to the changing needs of our borough.

# What's already in place

The Richmond Resident Climate Action Pack was launched in late 2023, designed to enable people to make informed choices about their actions at home, in their communities and as they move around the borough – with helpful links to locally based organisations and services – including tips for responding to climate emergencies such as extreme weather and the impact this has particularly on vulnerable people in our communities.

We continue to grow subscribers to our popular monthly climate newsletter and have had a series of communications around our various projects including microgrants, Warm Home Pack, Make My House Green, the Richmond Sustainability Forum as well as London-wide campaigns such as Eat Like A Londoner. We've also used targeted mail to support the Warm Home Packs and Make My House Green.

# What are we going to do

We will build on the Richmond Resident Climate Action Pack through a seasonal calendar of messaging around the core themes, raising the awareness of the resource and the specific actions people can be taking – and why these actions benefit individuals and communities. We will continue to develop forums for dialogue with our partners and residents about our evolving collaborative response to climate change.

We will build on the meaningful engagement we create via the Richmond Sustainability Forum, the Climate Community Reporter programme and our partnerships, building on the sense of collective purpose, appetite for change, valuable cross-sector insight sharing and momentum.

#### What are the benefits

Our whole community will have the information at the fingertips to take informed and empowered action and realise the multiple additional benefits of health, wellbeing, community cohesion, financial and a significant improvement to our natural environment in our borough.

# Enabling and supporting community climate action

# Aim

We aim to create the conditions to facilitate community climate action, reducing barriers, supporting fledgling ideas, providing support to existing projects to scale-up in capacity and provide space and forums for collaboration. We aim to respond to the growing appetite from the borough to make it easier to share resources, restore our habitats and respond to the changing environmental landscape in our borough.

# What is already in place

We have a well-established network and infrastructure of community support and advice services, including partners such as Richmond CVS, as well as various funding schemes open to community and voluntary groups to support climate and environmental initiatives. In 2023 we developed a Climate Microgrant scheme designed to award small grants to grassroots initiatives, widening the accessibility for seed funding within our communities and sparking innovation and collaboration. We recently launched a 'Library of Things' in Twickenham offering a new centralised resource of items for residents to access. We work closely with Habitats & Heritage and in partnership with Barnes Common and the Wildfowl and Wetland Trust on Community Bluescapes to nurture our green spaces and create environmental resilience.

# What are we going to do

We will continue to foster our strong partnerships with local organisations, ensuring funding responds to the growing needs. We will invite a transparent dialogue with partners about observed needs across the borough and how we collectively respond. We will work with partners on shared funding bids to grow our community capacity. We will make it easier for residents to take individual and collective action by joining events or initiatives on their doorstep, or accessing seed funding to start their own. We will continue to explore new ways to make it easier for residents to share resources and create nature and community based solutions to our environmental challenges.

# What are the benefits

An improved support structure to facilitate action and extend reach within our communities and impact of our work. A greater sense of cohesion, wellbeing and impact on quality of living.

# Working with businesses & partners

# Aim

We aim to support our work with our businesses to decarbonise operations, take advantage of green economic growth, grow a skilled workforce and collaborate across the borough to facilitate sustainable living in Richmond upon Thames.

# What's already in place

As well as the open Richmond Sustainability Forum we developed a free, internationally recognised environmental accreditation called 'Making Business Greener' in partnership with Green Mark offering Richmond upon Thames businesses the opportunity to understand and improve their environmental impact and develop a structured framework for fostering sustainable business growth.

# What are we going to do

We will continue to foster partnerships to share cross-sector learnings, increase capabilities and invite collaboration – by creating space and forums and creating connections with experts.

# What are the benefits

In addition to decarbonising our businesses and operations we will foster more effective collaborative networks and develop our green economy.

# Glossary

Glossary of terms used in the Richmond upon Thames Climate and Nature Strategy:

**Air Pollution:** contamination of the indoor or outdoor environment by any chemical, physical or biological agent that modifies the natural characteristics of the atmosphere.

**Best Practice:** a working method or set of working methods that is officially accepted as being correct or the most effective.

**Bikehangar:** On-street secure, lockable covered pods which can accommodate multiple bikes.

**Biodiversity:** Biodiversity is the variety of life found in an area – animals, plants, fungi, microorganisms that make up the natural word. Each of these species and organisms work together in ecosystems, to maintain balance and support life.

**Carbon Emissions:** Greenhouse gases produced from burning fossil fuels and manufacturing cement.

**Carbon Literacy:** Training to support individuals, teams and organisations in being Carbon Literate, meaning they have "an awareness of the carbon costs and impacts of everyday activities, and the ability and motivation to reduce emissions, on an individual, community and organisational basis."

**Carbon Neutral:** An activity, company or organisation which offsets the same amount of carbon which it emits, so that the emissions produced, and the offsets/carbon capture are equivalent and balance each other out.

**Carbon Offsetting:** A process that involves a reduction in, or removal of, carbon dioxide or other greenhouse gas emissions from the atmosphere in order to compensate for emissions made elsewhere.

**Cargo Bikes and E-cargo Bikes:** A bike or E-bike that allows you to carry heavy loads easily with a box or flatbed with rear or front-loading capacity.

**Circular Economy:** A model of production and consumption which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products to extend their life cycle and reduce waste to a minimum.

Climate Adaptation: The act of preparing for actual and expected future climate change.

**Climate and Nature Emergency:** There is a climate and nature emergency because our climate is changing faster than nature can adapt to it, including us. We have a limited time to keep global temperatures within a limit that the Earth can recover from, so there is a need to take action now.

**Climate Change**: The changes in global and regional climate over time including average temperature, rainfall or an alteration in frequency of extreme weather conditions.

Climate Hazards: The potential occurrences of natural events in weather cycles.

**Climate Risk:** The potential negative effects of climate change on the environment, businesses, and society.

**Climate Resilience:** The ability of a system to recover from the effect of an extreme load that may have caused harm. Adaptation policies can lead to greater resilience of communities and ecosystems to climate change.

**Co-benefits:** Simultaneously meeting several interests or objectives resulting from an intervention, action or investment. Co-beneficial approaches to climate change are those that also promote positive outcomes in other areas, such as air quality and health, economic prosperity and resource efficiency.

**Community Energy:** An energy project where residents own or participate in the production and/or use of sustainable energy, with profits are re-invested into community energy or realised by the members of the project.

**Consumption-based Carbon Emissions:** Attributing emissions generated in the production of goods and services according to where they were consumed, rather than where they were produced.

**Decarbonising and Decarbonisation:** Reducing or eliminating carbon dioxide emissions from (a process such as manufacturing or the production of energy) or in (an environment).

**Ecosystem:** A natural system of biotic (living organisms) parts and abiotic (non-living) parts such as air, sunlight, water, minerals.

**Ecosystem Services:** The direct and indirect contributions ecosystems provide for human wellbeing and quality of life. These can be provisioning, e.g. food, regulating e.g. flood management, supporting e.g. nutrient cycling, or cultural e.g. recreation.

**Electric Vehicles (EVs):** Electric vehicles have an electric motor instead of an internal combustion engine. Because it runs on electricity, the vehicle emits no exhaust from a tailpipe and does not contain the typical liquid fuel components, such as a fuel pump, fuel line, or fuel tank

**Emissions Scopes:** There are three scopes which cover carbon emissions. Scope 1 covers emissions from sources that an organisation owns or controls directly, such as burning fuel for vehicles. Scope 2 are emissions caused by the generation of energy used and purchased by an organisation, such as emissions generated by the electricity used in powering buildings. Scope 3 encompasses emissions that are not produced by the company itself and are not the result of activities from assets owned or controlled by them, but by those that it's indirectly responsible for up and down its value chain.

**Energy Efficiency:** How much energy it takes to get the result we want, e.g. heating our home. By doing things in a way that uses less energy to get the same result, we can improve energy efficiency.

**Greater London Authority (GLA):** Composed of the Mayor of London and the London Assembly, the GLA is the strategic regional authority for London, with powers over transport, policing, economic development, and fire and emergency planning.

**Greenhouse Gas Emissions:** Greenhouse gases (also known as GHGs) are gases in the earth's atmosphere that trap heat. They are essential for life on earth but too much of them in the atmosphere can create global warming and contribute to climate change.

**Green Skills:** The knowledge, abilities, values and attitudes needed to live in, develop and support a society which reduces the impact of human activity on the environment.

**Heat Pumps:** Heat pumps are efficient electric appliances that transfer and intensify heat from the outside air or ground into a building. They can produce around 3 units of heat for every unit of electricity they use.

**Indices of Multiple Deprivation:** The index of multiple deprivation ranks each small area in England from most to least deprived based on a combination of seven different factors including: income, employment, education, health, crime, barriers to housing and services, living environment

**Internal Combustion Engine Vehicle:** Vehicles powered by fuel which combusts inside the engine itself, typically fossil fuels.

**Just Transition:** Greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind.

**Location-based Emissions:** Location-based emissions refers to what you physically consume at your operations site or business facility. It's calculated using solely the average emission intensity of the local grid where you source power.

**Market-based Emissions:** Market-based emissions are calculated based on the electricity that organizations have chosen to purchase, often spelled out in contracts or instruments like Renewable Energy Certificates (RECs)

**Net Zero:** The balance between the amount of greenhouse gas (GHG) that's produced and the amount that's removed from the atmosphere. It can be achieved through a combination of emission reduction and emission removal, with a limit on the amount that can be balanced through removal.

**National Grid:** The network that connects all the mix of power stations to provide electricity to the whole country. This includes renewable and non-renewable energy stations.

**Nature-based Solutions:** Solutions that use and work with nature to improve biodiversity, ecosystems and address the impacts of climate change.

**Invasive Species:** A non-native species that causes harm to the environment, economy, or human, animal, or plant health.

**Place-based Approaches:** An approach that has a deep understanding and consideration of the challenges, complexities, interconnections and relationships of a specific area. This tailored approach aims to maximise positive impact and minimise unintended consequences.

**Power Purchase Agreement (PPA):** A long-term contract between an energy supplier and an energy buyer. It states the price the energy buyer will pay for every megawatt-hour of energy from a renewable source, provided by the energy supplier.

**Retrofit:** Retrofit refers to any improvement work on an existing building to improve its energy efficiency, making them easier to heat, able to retain that heat for longer, and replacing fossil fuels with renewable energy.

**Reuse and Repair:** Looking to reuse items, find alternative uses for items that have outlived their current purpose and repair items to extend their lifespan before throwing things away. All with a purpose to reduce waste and emissions associated with said waste.

**Science-based Target:** A carbon emissions target is defined as science-based if it is in line with the scale of reductions required to keep global temperature increase below 2°C above pre-industrial temperatures.

**Social Value:** The sum total of all the positive effects deriving from an activity, project, or intervention beyond the direct economic impact that the project has e.g. improving the mental health of a local community.

**Solar Photovoltaic (PV):** Also known as solar panels, these convert sunlight into electricity, making them a renewable energy source.

**Sustainability:** The ability for a system or activity to continue forever without depleting current or future resources.

**Sustainable Urban Drainage Systems (SuDS):** Natural water management practices that aim to slow the flow of water that runs off a site whilst improving biodiversity. Examples include rain gardens, green roofs, ponds and more.

**Stakeholders:** A person such as an employee, customer, or citizen who is involved with an organization, society, etc. and therefore has responsibilities towards it and an interest in its success.

**Transport for London (TfL):** The integrated transport authority responsible for running the day-to-day operations of London's public transport network and roads. Wheeling

**Zero Waste Economy:** The conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health.