**Richmond upon Thames** 

## Climate and Nature Strategy



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Climate and Nature Strategy 2025-2030 CHMOND UPON THAMES

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#### Nature is crucial for human society, providing

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essential ecosystem services including oxygen, food, and materials.



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#### Executive Summary

The 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 Richmond upon Thames Climate and Nature Strategy 2025-2030 sets out the strategic approach of the Council for climate action for the next 5 years. This approach builds on the 2019 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 areas that are key to meeting net zero, 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 already seen rising temperatures and changing precipitation patterns, with future projections indicating further changes and more frequent and severe weather events. Vulnerable communities will be disproportionately affected. With the River Thames flowing through the heart of the borough, flooding is a major 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 consumptionbased emissions from households. Knowing this, the London Borough of Richmond upon Thames has set a net zero target of 2043; a sciencebased target to ensure we make our fair contribution to reducing carbon emissions. We have an ambitious pathway for how we can get to net zero.

Nature is crucial for human society, providing essential services (ecosystem 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 vital for our communities, but a changing climate threatens nature itself and in turn the ecosystem services nature provides for us, which is why we have created a Climate and Nature Strategy to address these connected problems.

Climate action can be transformative. There are a wealth of co-benefits from tackling climate change, 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. Central to this is embedding the principles of a 'just transition', focusing on equity, inclusivity, decent work, and leaving no one behind. In doing so, we can ensure all members of society not only benefit from climate action, but have their lives positively tranformed to enjoy a significantly better quality of life.

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The 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 and 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 five 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 working with our communities to shape and facilitate the future of our borough.
- 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

#### Postcard from the future

Created at the Richmond Primary School 'Eco Summit', April 2025





I wish we had taken action early earlier. The world is broken. You must help-do everything years you can to prevent this.



#### Introduction

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 ClIr 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

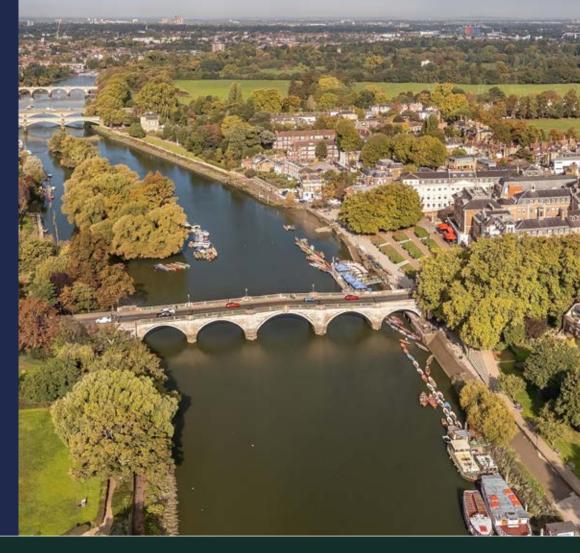
Chair of the Environment, Sustainability, Culture & Sports Committee



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#### The Richmond upon Thames Climate and Nature Strategy sets out the rationale and context for action.



## Vision

A vision for a net zero Richmond upon Thames in 2043 By 2043, Richmond upon Thames will be a beacon of sustainability, achieving net zero emissions through the collective efforts of the Council, communities, businesses, and partners. Our borough will lead the way in low-carbon living, with energy-efficient homes powered by renewable solutions, supporting a thriving green economy and creating well-paid local jobs.

We will champion sustainable transportation, making walking, cycling, and public transport the norm, supported by improved infrastructure for safer streets and cleaner air. Our parks and open spaces will flourish, providing vital green havens, increasing our resilience to climate impacts, and engaging communities who look after their local environments.

Richmond upon Thames will embrace a circular economy, where reuse, repair, and recycling are integral to daily life, reducing waste and strengthening community bonds. As a leader in climate adaptation, our borough will be resilient to the challenges of climate change, with permeable surfaces and green infrastructure reducing flood risks and cooling our streets.

The Council will be carbon neutral, setting an example with energyefficient buildings, an electrified vehicle fleet, and a skilled workforce dedicated to tackling climate change. Together, we will create a greener, healthier, and more resilient Richmond upon Thames, where nature and community can thrive for future generations.

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## Key principles

The Council's climate work is driven by a recognition that simply delivering projects in isolation will not address the climate emergency.

The Richmond upon Thames Climate and Nature Strategy is an overarching strategy that brings together a range of strategies, action plans and policies that the London Borough of Richmond upon Thames has into one document that focuses on the challenges of climate change and what the borough needs to do to tackle the many challenges it faces.

Five key principles have been identified which underpin the Council's approach to tackling climate change:

#### - We are a place-shaper

As a local authority, the Council plays a pivotal role in working with communities to help shape the borough. We are a facilitator who brings together stakeholders, an example setter who leads by inspiring others, and a place-shaper who uses our powers and responsibilities 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 the benefits of our actions by working across different sectors, teams and organisations. This ensures a just transition that considers social equity and economic viability.

## Impacts

The impacts of climate change on Richmond upon Thames

Photo credit © Anne Tetzlaff



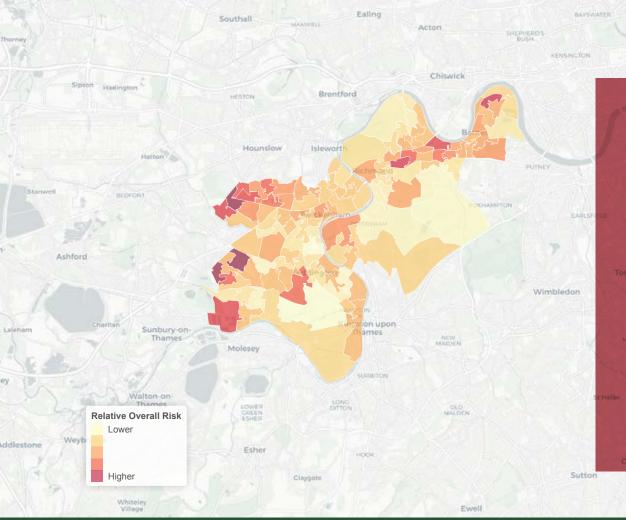
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## The rise in global temperatures has already caused significant changes to our planet and in turn impacted heavily on people and nature.



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Every region on the planet has experienced some changes in climate and extreme weather.<sup>1</sup> In Richmond, average annual temperatures have increased from 8.6°C 1890 to 12°C in 2022. Summer precipitation has decreased and winter precipitation has increased overall, albeit with marked annual variability. These observed changes are expected to continue in the 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. Importantly, significant year-to-year variability is expected, with more frequent and extreme weather events expected over the coming decades.

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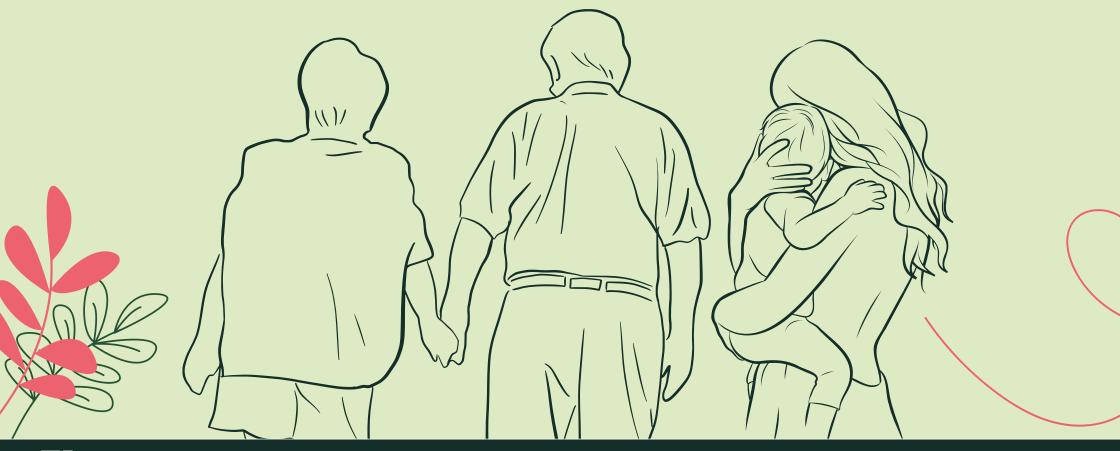
Leaflet | © OpenSt

Overall risk due to climate change in the London Borough of Richmond Upon Thames, at the LSOA level. Source: DataRich - Climate Risk Map



#### Babies, children, older people, people with pre-existing health conditions and socio-economic challenges are more vulnerable to climate hazards

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.



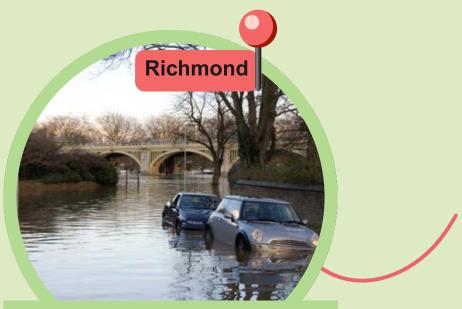


#### Impacts of extreme weather on London and Richmond Upon Thames



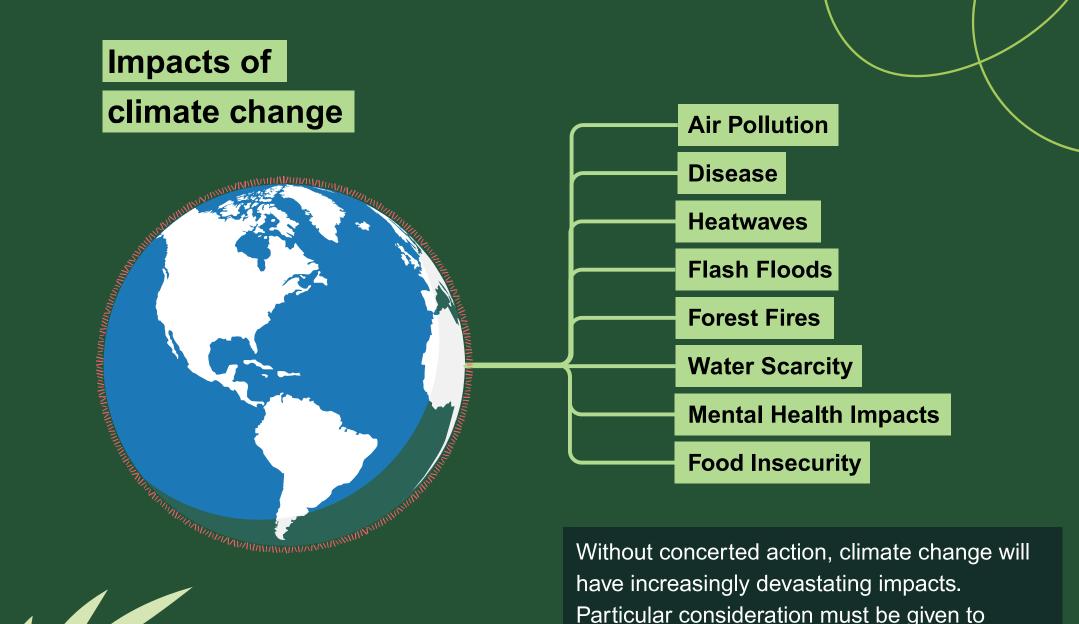
#### **Summer 2022**

London experienced a severe heatwave, 387 excess deaths were recorded. Record-breaking temperatures were recorded at 40.2°C on 19 July 2022.



#### February 2022

Three named storms hit Richmond upon Thames in one week. Shops, businesses and parks closed. The council issued a 'Stay Indoors' warning to residents as there was a risk to life due to high winds.



have increasingly devastating impacts. Particular consideration must be given to vulnerable communities who will be worst affected by climate change.

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### Inaction on climate change poses significant financial risks.

Without proactive measures, the borough faces escalating costs from infrastructure damage due to extreme weather. The recent collapse of the Thames Towpath by Kew Gardens is an example of the sort of impacts we will see more of in the future, alongside rising healthcare expenses linked to heat and air pollution, and economic disruption affecting local businesses and jobs. Insurance premiums will increase as climate risks grow (as is already being experienced by those affected by flooding) and the degradation of green spaces and biodiversity will affect recreational income and quality of life. The social costs of inaction—particularly for vulnerable communities—will put a on strain public services and deepen inequalities.

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## What we know

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

Photo credit © Anne Tetzlaff

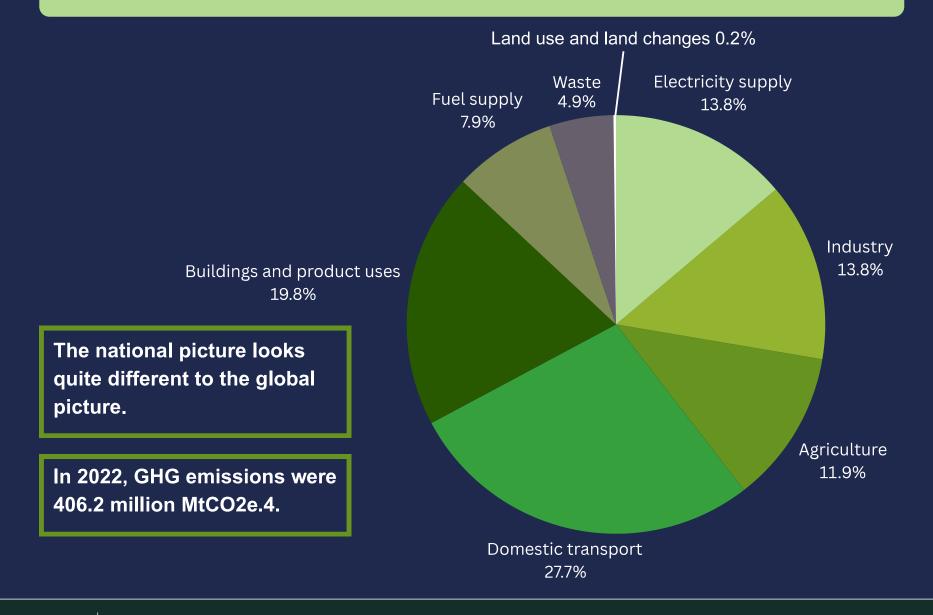


#### 2019 Sectoral Breakdown of Global Greenhouse Gas Emissions

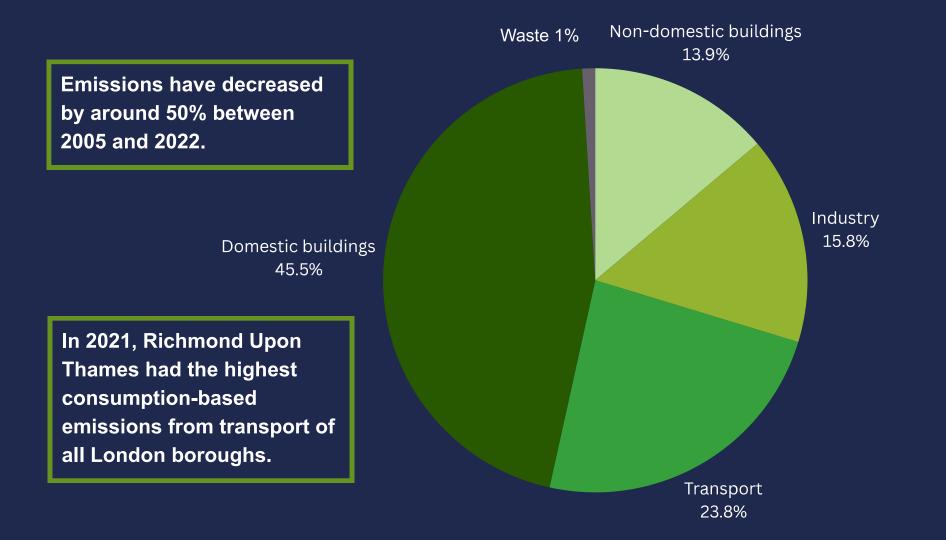
**Buildings** 5.6% Although emissions have continued to rise Transport overall, there has been 14.9% a slow down in growth Energy of emissions from 33.8% energy and industry. In 2019, global GHG emissions totalled 59±6.6 GtCO2e3. Agriculture, forestry and other land use 21.9% Industry 23.9%

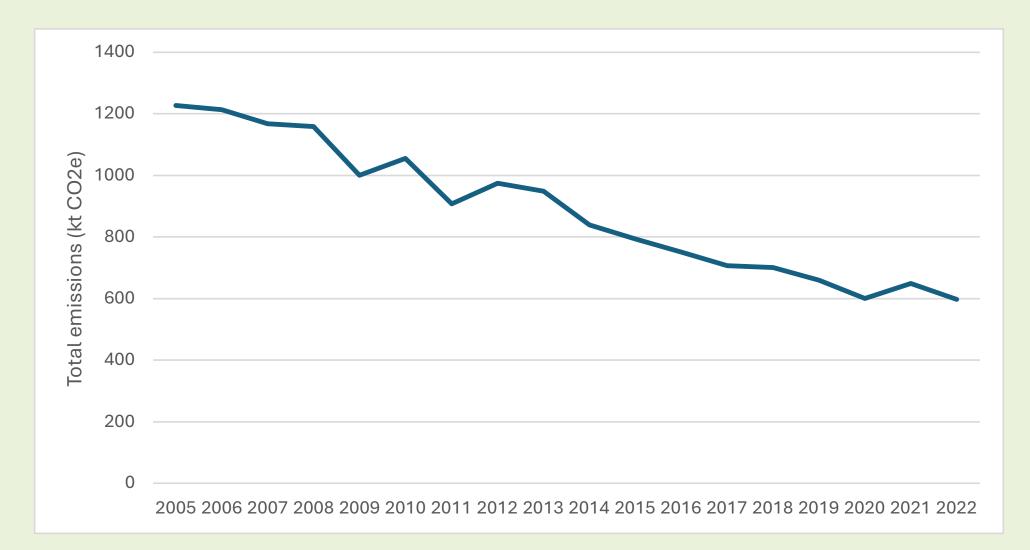


#### 2022 Sectoral Breakdown of National Greenhouse Gas Emissions



#### **Share of Emissions in Richmond Upon Thames**





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

The Council itself contributes to greenhouse gas emissions in the borough. The Council has reduced its scope 1 and 2 emissions by 67.3% since 2018/19 (reference scope 1, 2 and 3 emissions explainer box).



Scope 1

Scope 2

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.

**Direct emissions** 

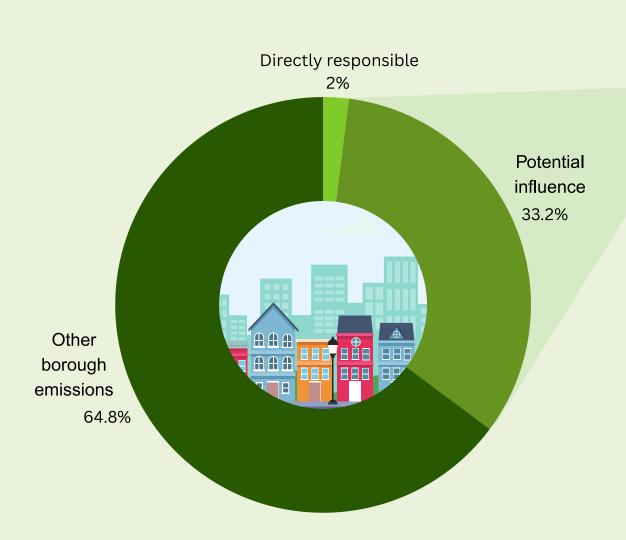
Emissions released into the atmosphere, associated with use of electricity, heat, steam and cooling. These are indirect emissions that are a result of Council activities, but which happen at sources that are not owned or controlled.

Energy indirect

Scope 3

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.

**Other indirect** 



Local authorities are responsible for around **2%** of emissions. However, they can **influence as much as a third** of total borough emissions.

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## below 2°C about the terms of terms

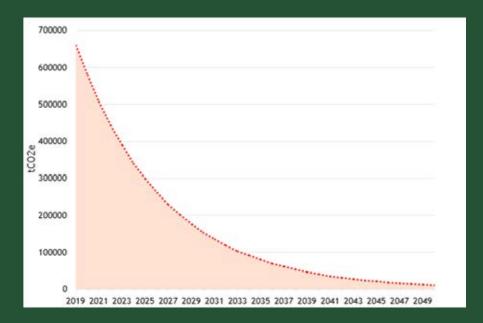
#### Richmond upon Thames' pathway to net zero 2043

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°C above pre-industrial levels". The borough has a carbon budget of 5.5 MtCO2, meaning its total emissions cannot exceed 5.5 MtCO2 between now and 2100. Current emission levels mean the carbon budget for Richmond will be used up by the end of 2027.



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To inform how best to meet the science-based target, the Council commissioned consultants Anthesis to produce an emissions pathways report. This report details how the borough can meet its 2043 net zero target, including sector-specific interventions. The pathway for net zero in 2043 is set out below.



https://www.richmond.gov.uk/media/ylclq2ew/emissions\_reduction\_pathways\_analysis.pdf

The report identified interventions needed in key sectors to meet our 2043 net zero target.

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
Transport	Travelling shorter distances
	Driving less
	Switching to electric vehicles
	Improving freight emissions
Industry	Shifting away from fossil fuels
	More efficient processes
Waste	Reducing the quantity of waste
	Increasing the recycling rate
Natural environment	Increasing tree coverage and tree planting
	Land use management
	Livestock management
Energy supply	Increase solar photovoltaic (PV) capacity

The pathways analysis provides the scientific 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.

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#### The Council alone

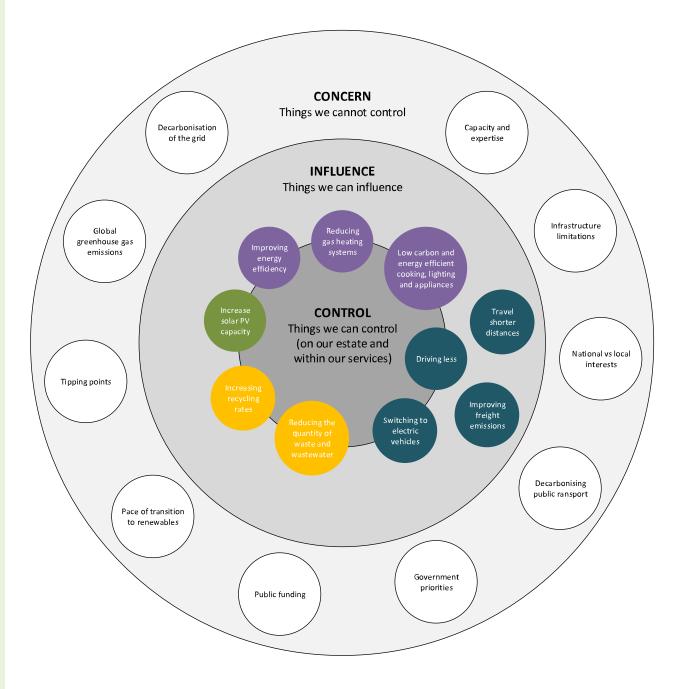
#### cannot meet net zero.

Action is also needed from a range of stakeholders including national government, business, charities, and the public.

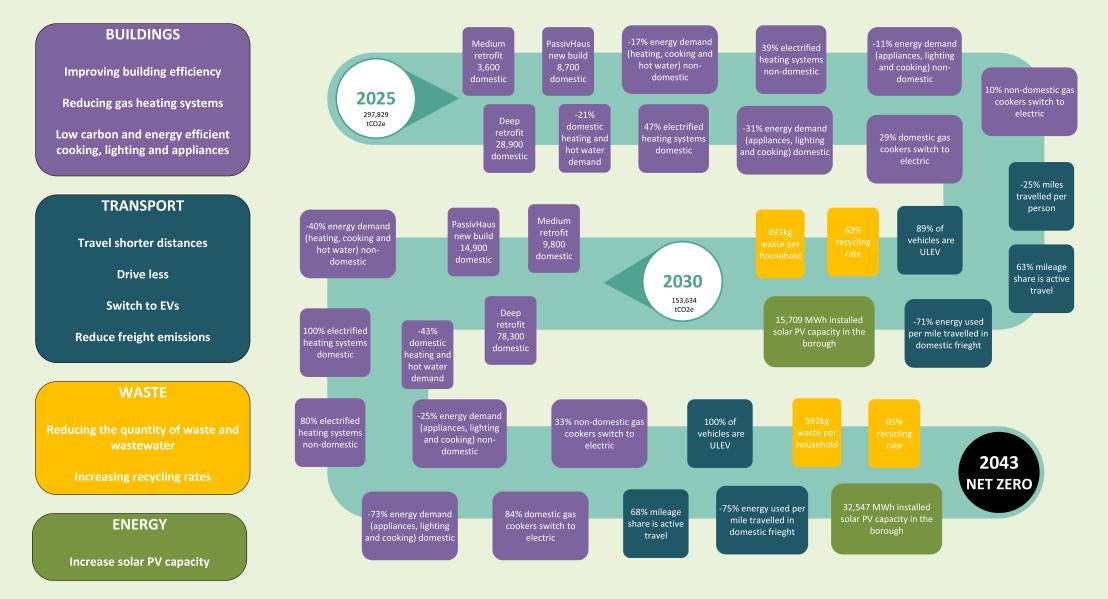
The Council has a vital role to play and so it is leading the charge to reach net zero by 2043. Yet the Council has differing levels of control and influence, which are important to understand in order to ensure effective action and engage stakeholders.

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. The Council has some control and influence in these sectors to enable the delivery of interventions to meet net zero.

The diagram on the next page shows a roadmap to net zero. The roadmap highlights the key targets that need to be met between now and 2043 for domestic and non-domestic buildings, transport, waste and energy supply in order to reach net zero. It will take concerted action by the Council and across all sectors to meet these ambitious targets.



#### **NET ZERO ROADMAP**



## Co-benefits

The co-benefits of climate action

Photo credit © Anne Tetzlaff



#### Inclusive and sustainable climate action can mitigate and adapt to climate change, whilst also generating a broad range of co-benefits.

32 photo credit © Ewelina

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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.



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

Climate action can help to alleviate the cost-ofliving crisis by, for example, reducing energy consumption and bills or supporting residents to use lower cost transport methods. 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 enabling behaviour change.





# The need for a just transition

We will embed the principles a just transition into our work to ensure climate action in the borough enables a positive transformation of everyone's quality of life.



All members of society should have a say in, and contribute to, the decision-making process for achieving net zero.

#### **Richmond upon Thames**

Despite a generally high standard of living, pockets of deprivation, inequality, and fuel poverty exist across Richmond upon Thames.

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. This wide public involvement ensures the development and delivery of climate mitigation and adaptation actions that are based on:

Local needs



(such as new green jobs and higher wages)

#### **Just Transition Core Principles**



Equity



Inclusivity



**Decent Work** 



Leaving No One Behind

The transition to a net zero economy benefits all segments of society. Solutions can be targeted benefitting the most vulnerable who are often at risk. For example, around 8.8% of households in Richmond upon Thames live in fuel poverty. 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 have the opportunity to do so. More opportunities for dialogue between communities and decision-makers, enabling barriers to be broken down and for perceptions to be addressed directly. 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, higherskilled jobs in Richmond upon Thames. In turn, these opportunities will attract new organisations and talent into the borough.

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.



## Crisis

An ecological crisis as well as a human crisis

Photo credit © Anne Tetzlaff

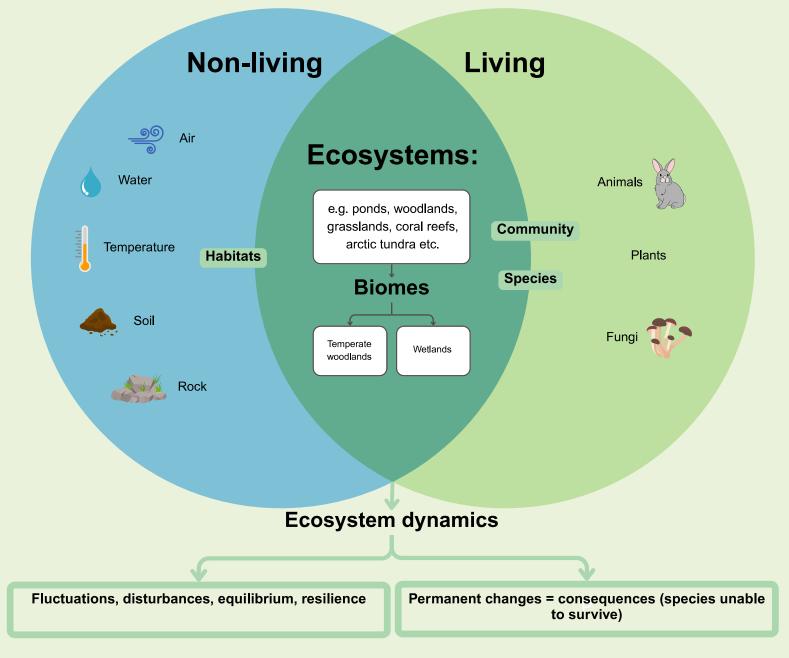




An ecosystem is a natural biological unit that is made up of both living and non-living parts.

They include habitats (where different species live) and a community (made up of different types of species). Each 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, 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.

Locally, a number of climate change impacts are affecting Richmond upon Thames including drought, higher temperatures and more frequent storms. Drought significantly impacts 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. As ground hardens, when rain does fall it isn't able to penetrate below the surface causing flash flooding.

Climate change has brought in and created better environmental conditions for nonnative invasive species. These include pathogens that attack crops and native species. Examples of this are the pathogen Phytophtora cinnamomi which causes acute oak declineand 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 leaving 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 which provides us with the oxygen we breathe, the food we eat, and materials to clothe and house us.

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. The mental health benefits from nature-based interventions include social empowerment and cohesion and a reduction of isolation and loneliness.

Photo credit © Anne Tetzlaff

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## Why a Climate AND Nature Strategy?

It's impossible to ignore the links between the climate crisis and nature loss. While climate change is a critical focus of this work, the escalating crisis in and impacts of climate change on biodiversity loss, habitat degradation, and ecosystem decline demands attention. The challenges and solutions to both are also inextricably linked. By expanding the strategy to include nature, Richmond acknowledges that climate, ecological and societal health are deeply interconnected — and that protecting and restoring natural systems is essential for building resilience, supporting wellbeing, and ensuring a sustainable future for our borough.

Photo credit © Kinship Workshop

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# 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 3 years in a row in 2022, 2023 and 2024.
- Reduced carbon emissions from the organisation by 76.8% since 2017/18.
- Secured £14.5m of external grant funding to deliver decarbonisation of Council buildings.
- Developed plans for switching the Council fleet to electric vehicles.
- Created a new Local Plan, which goes further on insisting that climate change is an essential part of our planning framework.
- Installed energy efficiency improvements in 212 properties occupied by low income households via the government's Green Homes Grant.
- Delivered Warm Homes Packs to over 1500 residents, plus energy efficiency advice and support.
- Worked to increase skills on retrofit across South London.
- Launched a Library of Things in Twickenham.
- There are now 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 and Richmond Spark scheme for climate tech start-ups.

- 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.
- Planted over 2000 trees since the start of the Richmond Climate Emergency Strategy in 2020.
- 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 and April 2025.
- 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

Photo credit © Jane Plowright



## We've adopted a principle of openness and transparency to reflect

## community needs

Photo credit © Anne Tetzlaff



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.

'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.

Photo credit © Jess Meehan



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.

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.

Since publishing the draft Climate & Nature Strategy in February 2025 we have conducted a series of in person opportunities to talk with residents and partners about the new draft Strategy and invited feedback via the Commonplace engagement platform. We received over 50 written responses to this phase of the consultation from individuals and organisations. Around a third were 'happy', a fifth 'neutral' and under a half 'unhappy'; it is important to note that this latter group included both the view that the strategy went too far and that it didn't go far enough. There was a clear request for a more succinct document and that the accompanying new Climate Action Plan for 2025-2026 (to be published in June 2025) was a vital component for residents to understand how the strategy would be acted upon and to provide clarity in how the strategies and actions relate to wider Council work, such as the Biodiversity Action Plan, the current Transport Strategy consultation, and the newly published Retrofit and Adaptation & Resilience Strategies.

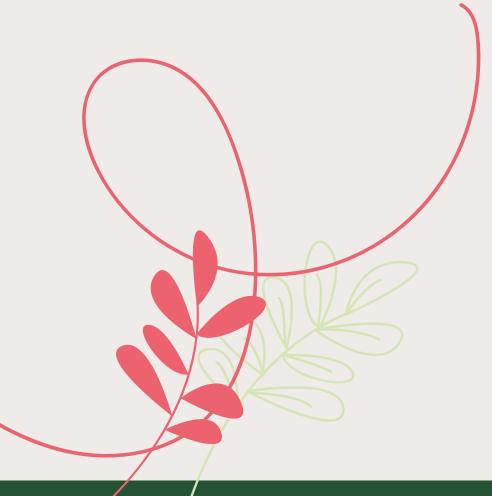


# Action areas

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.



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- reducing carbon emissions

from homes across the borough



## Our vision

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.

Photo credit © Anne Tetzlaff



Our buildings



## 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 emissions from domestic buildings make up 46% of our borough's emissions. Due to the significant percentage of emissions from existing buildings, achieving net nero 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.



# 2030

## 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.

# 2043

## 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.



#### Postcard from the future

Created at the Richmond Primary School 'Eco Summit', April 2025



Decarbonising privately owned and rented housing

## Decarbonising privately owned and rented housing



The Council will act as a facilitator and trusted source of information, empowering homeowners to make informed decisions about retrofitting with confidence. We will engage owner-occupiers and landlords to raise awareness of the benefits and processes involved, while mitigating risks associated with retrofitting. Recognising the distinct challenges faced by owner-occupiers, private landlords, and renters, we will employ a range of approaches to advance retrofitting across all sectors.

Decarbonising privately owned and rented housing



## 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 the comfort and energy efficiency of homes, raising awareness of the impact of home improvements and reducing carbon 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 empower our community with the knowledge needed for retrofit, the Council will provide clear and comprehensive information on retrofit options, costs, benefits, payback times, and available financial support. A communications campaign will raise awareness and inspire behaviour change, encouraging professionals to guide residents on energy efficiency measures.

We are committed to supporting those less able to pay by enhancing our Warm Home Packs and cost of living support. We will secure external funding, including through the government's Warm Homes Local Grant, to tackle fuel poverty, improve energy efficiency, and increase low-carbon heating installations for lowincome households.

Engaging landlords is vital for private sector retrofitting. We will ensure landlords are informed about new EPC requirements and the rising costs of non-compliance. We will explore extending enforcement powers, requiring all landlords to hold a licence granted only if their properties meet minimum standards.

To simplify planning permissions, the Council will clearly communicate guidelines on 'permitted development rights,' enabling homeowners to retrofit without planning concerns. We will create a Supplementary Planning Document (SPD) to guide sustainable retrofit solutions.

## What are the benefits

- Saving money for local residents through reduced energy bills.
- Improved comfort and health of homes.
- Improved air quality by reducing polluting gas boilers.
- Increased demand for retrofit, creating and supporting new green jobs.

Developing place based approaches to retrofit

## Developing place based approaches to retrofit



Place-based retrofit approaches are collaborative, long-term strategies focused on local needs within a specific area, involving multiple stakeholders. Our goal is to identify and develop large-scale retrofit and decarbonisation projects for the borough's housing, attract external funding, and achieve significant carbon emissions reductions.

Developing place based approaches to retrofit



## 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.

Developing place based approaches to retrofit

## What are we going to do

We will identify areas in Richmond upon Thames that would benefit most from place-based retrofitting, focusing on low energy efficiency, mixed housing stock, and vulnerable populations. We aim to form partnerships with trusted organisations to support and deliver this, attracting external funding and financing from government or private investment.

Additionally, we will collaborate with community energy groups to develop community energy projects and build a stakeholder network to enable wider implementation of community energy. We will also identify potential areas for heat networks and learn from existing projects to bring these solutions to Richmond upon Thames.

## What are the benefits

- Increased resilience through building in climate adaptation as part of a place-based approach.
- Improved public spaces for communities.
- Saving money for local residents through reduced energy bills.
- Improved comfort and health of homes.
- Increased demand for retrofit, creating and supporting new green jobs.

Securing funding to decarbonise housing

# Securing funding to decarbonise housing



Securing consistent funding is essential due to the high costs of large-scale retrofitting. Richmond upon Thames will explore various funding options, including government grants, private investments, and innovative financing mechanisms, to support boroughwide retrofit projects. The goal is to attract investment to help decarbonise housing across the borough.



## 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 a second year, distributing to more than 1400 households to reduce energy bills through improved energy efficiency.

### What are we going to do

We will explore innovative funding models to create dedicated funds for retrofitting in our areas of responsibility, and also look for ways to support private households in accessing funding and finance to retrofit their homes. We aim to secure government grants to support retrofit and run a consistent campaign to inform residents about the benefits of retrofitting, encouraging high participation in grant-funded projects.

Additionally, we will seek partnerships with the private sector to form publicprivate partnerships that meet the investment needs for retrofitting in the borough. We will also explore ways to facilitate resident investments in retrofit projects and consider using low-cost financing options for clean energy projects.

## What are the benefits

- Increased investment in local areas.
- Increased demand for retrofit, creating and supporting new green jobs for local people.

Supporting green skills to deliver retrofit

## Supporting green skills to deliver retrofit



There's currently a shortage of skilled workers needed for retrofitting. We aim to demonstrate the long-term demand for these skills through consistent promotion and funding of retrofit opportunities. We will encourage education providers to invest in training programs for these areas. Our goal is to have more local people pursue careers in decarbonising and retrofitting homes in their community.



## 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

Richmond upon Thames will continue partnering at a sub-regional level with the South London Partnership, focusing on priorities like market education, workforce skills, research, innovation, funding, policy, planning, and data.

We will work with education providers and the South London Partnership Green Skills Academy to integrate green skills into school career advice and highlight training opportunities. By engaging with education providers and residents, we aim to raise awareness of the importance and future of green skills in retrofit. Using our position and partnerships, we will showcase opportunities to residents and local businesses, promoting economic growth and strengthening the supply and delivery chain

## What are the benefits

 Increased training, development and employment for local people, supporting the local economy.

Driving decarbonisation through a retrofit taskforce

## Driving decarbonisation through a retrofit taskforce



Retrofit efforts involve multiple teams within the Council and external organisations, making collaboration and sharing best practices essential for decarbonising homes by 2043. We aim to work together to shape retrofit programs, presenting a unified approach that builds trust with partners and residents. We will collaborate closely with local social housing providers to ensure homes meet evolving standards in line with climate targets and national legislation.

Driving decarbonisation through a retrofit taskforce



## What's already in place

We worked with the South London Partnership (SLP) to research barriers to retrofitting for those who can afford it, identifying different resident behaviour groups. An internal workshop with senior leaders established a baseline understanding of retrofit challenges and agreed on necessary components to address them. Throughout 2024, we participated in 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 new technologies. Our partnership with the London Office of Technology and Innovation raised our profile and identified opportunities for shared approaches. This collaboration helped secure funding to develop our retrofit approach and better understand 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.

Driving decarbonisation through a retrofit taskforce

#### 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 approach.

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

- Engaging stakeholders fosters collaboration and a unified approach to achieving climate targets.
- Collaboration encourages knowledge sharing, best practice and innovative solutions.

- increasing sustainable travel

and reducing air pollution







ST.

### Our vision

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.

Photo credit © Anne Tetzlaff





# Why do we need to take action

Carbon emissions from transport are 24% of borough emissions, making it the second highest emitting sector in Richmond.

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 every petrol or diesel car for an electric car will not be the solution as it will not address issues of congestion, road safety and the resources needed to manufacture those vehicles. While electric vehicles play a role, 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.

### Postcard from the future

Created at the Richmond Primary School 'Eco Summit', April 2025

In 2043, We would Want only dechic vehicles st



# 2030

### 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 fewer and fewer petrol and diesel vehicles on the road.

# 2043

### 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. Cycling, e-mobility, walking and public transport has hugely increased and is now seen as the default unless you are going somewhere much further afield. Electric vehicles aren't seen as EVs, they're just cars and vans and any petrol or diesel vehicles on the road stand out because of the smell and the noise. Car ownership is significantly reduced with a proliferation of car clubs and shared ownership, with owning more than one car 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

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



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 and we have a target for 75% of trips to be by sustainable modes by 2041.

Improving and increasing our walking, wheeling and cycling infrastructure



### 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.

Improving and increasing our walking, wheeling and cycling infrastructure

### What are we going to do

We will improve highway infrastructure to enhance connectivity and make local routes more attractive for cycling and walking. These improvements include safer and more comfortable footpaths and cycle paths, better crossing points, improved lighting, wider footways, junction upgrades, and contra-flow cycling on one-way roads. Creating safe connections between local areas will result in a network suitable for all types of trips.

We will also increase the availability of both short-term and secure long-term cycle parking to enhance safety. This will be supported by increased communication about available routes and options, as well as the benefits of walking and cycling. All these efforts are underpinned by an ambitious Transport Strategy with a long-term vision extending to 2040.

- Improved health through increased exercise via walking and cycling.
- Improving air quality through reduced exhaust and particulates, further improving health outcomes.
- Decreased fatal road accidents.
- Reduced congestion on the road, freeing up road space for businesses and those need to use a vehicle.

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

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



E-mobility options like e-scooters, e-bikes and cargo bikes allow people to make short to mid-distance journeys when they can't do so under their own power or would otherwise need a larger vehicle, enhancing personal mobility options. Cargo bikes are ideal for sustainable transportation of goods and services, such as community waste collection and transporting children, replacing cars for school runs.

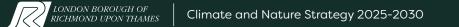
Our goal is to provide the necessary infrastructure and options for Richmond upon Thames residents and businesses to fully utilise these low-carbon transport methods, making local mobility quick, easy, and environmentally friendly.

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



# 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.



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

# What are we going to do

To increase bicycle accessibility, we'll offer affordable rentals of standard, electric, and cargo bikes and lobby the government for legislation that supports widening access to e-mobility solutions. E-bikes will assist those who need help pedalling, while cargo bikes will enable quick, cheap transport of large items for businesses and residents, which we will promote through a cargo bike festival and other channels. 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.

- Reduced tailpipe emissions leading to cleaner air and a healthier environment.
- Reduced traffic congestion, making commutes faster and more enjoyable.
- Increased physical activity, improving health and well-being.
- E-cargo bikes reduce the need for delivery trucks and lowers business costs.
- 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

### Reducing our dependence on the internal combustion engine



Internal Combustion Engine vehicles are major contributors to greenhouse gas emissions, climate change, and poor air quality. They emit harmful pollutants like nitrogen oxides (NOx) and particulate matter (PM), which negatively impact human health. Additionally, these vehicles rely on fossil fuels, increasing our dependence on non-renewable energy sources. While cars are useful for transport, their environmental harm necessitates a shift away from petrol and diesel vehicles and a reduction in car use if we are to achieve net zero and become a sustainable borough. Our aim is to decrease the number of internal combustion engine vehicles and privately owned vehicles in the borough.

Reducing our dependence on the internal combustion engine



### 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 more by 2030.

Reducing our dependence on the internal combustion engine

### 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. We will collaborate 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 that 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 disincentivise 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.

Recognising that while EVs are better for carbon emissions and air quality than petrol and diesel vehicles they still create air pollution from brake and tyre wear, we will implement a pilot programme to mitigate and reduce non-exhaust emissions.

- Improved air quality and improved health and wellbeing.
- Reduced costs for residents by enabling easy access to vehicles that cannot afford to own one.
- Improved energy security by not relying on imported energy in the form of petrol and diesel.



Improving the quality of the air we breathe

# Improving the quality of the air we breathe



Air pollution remains a significant contributor to mortality or early deaths 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.



Improving the quality of the air we breathe



### 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 enhance air quality monitoring and data collection to identify the people, places, and services that need the most improvement or protection, such as children and vulnerable residents, and pinpoint locations with the highest exposure. We will raise awareness of air pollution risks by engaging with schools and vulnerable communities on self-protection measures and encouraging less polluting behaviours, such as discouraging wood-burning.

We will address unnecessary car idling through targeted campaigns and actions at problem locations, introducing a new fine for engine-idling using Public Spaces Protection Orders to reinforce positive fuel and emissions-saving messages. We will also enforce standards for construction site machinery (Non-Road Mobile Machinery) and promote the use of cleaner equipment powered by electricity and hydrogen.

The Council will maintain and reaffirm its opposition to any proposed Heathrow Airport third runway, night flights, and excessive airspace modernisation plans. Any expansion of Heathrow or increase in flights will lead to more traffic, higher air pollution emissions, greater noise disruption in the surrounding area and increased carbon emissions. We will continue to urge the government to review and revoke the Airport National Policy Statement.

- Improved air quality will reduce carbon emissions due the strong correlation between sources of air pollution and sources of carbon emissions.
- Improved air quality will have a direct health benefit to all residents of the borough, particularly for those who are most vulnerable and those who are most exposed.
- Improved equalities outcomes as those worst affected are typically less well-off in our communities.

- protecting and enhancing

biodiversity and green spaces



### Ourvision

Richmond upon Thames is already experiencing climate change impacts such as drought, higher temperatures, and more frequent storms. These threats to our natural world that we know and admire contribute to 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 shielding us from a changing climate and for the physical and health benefits that we get from nature.

Photo credit © Anne Tetzlaff



# 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.

# 2030

### 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.

# 2043

### 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.

### Postcard from the future

Created at the Richmond Primary School 'Eco Summit', April 2025

I mant to see cities of trees and colonies of ants. I want to see flocks of birds and worlds of grass I want to see a sea of creatures and a home for friends I want to see a river of colour and a sumann of bees I want to see a hug of wormith and ice so cold i lovely story of ways to be told



# 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 improve, 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.

- Increased biodiversity and increased climate resilience.
- Improved community cohesion through a shared stake in well-loved and enjoyed local spaces.
- Increased physical and mental health benefits for residents who use green spaces, alongside improved air quality.

Increasing and improving the natural connections across the borough

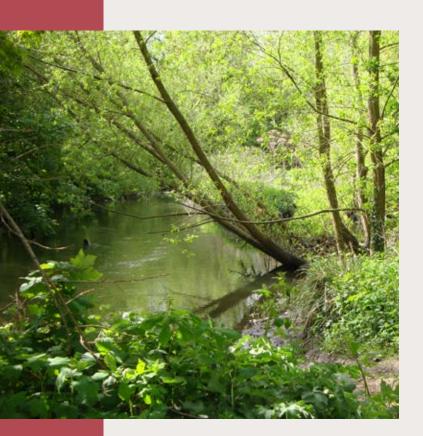
Increasing and improving the natural connections across the borough



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, streets, gardens and allotments.



Increasing and improving the natural connections across the borough



### What's already in place

London Borough of Richmond upon Thames has a Tree Policy and a Trees Strategy, Trees for Richmond, which guides the approach to tree planting, maintenance and increasing the benefits provided by trees to 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.

Richmond Biodiversity Partnership brings together organisations from across the borough that are working on supporting and improving biodiversity, including maintaining and creating natural connections. Activities such as volunteer events, educational programs, and habitat restoration projects to improve the local environment are organised by the range of organisations involved, from major landowners, to environment charities to local Friends groups and allotment societies.

#### Increasing and improving the natural connections across the borough

### 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 create connectivity for nature, linking habitats in the borough and beyond, and enhance habitat and food resources for wildlife. 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.

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

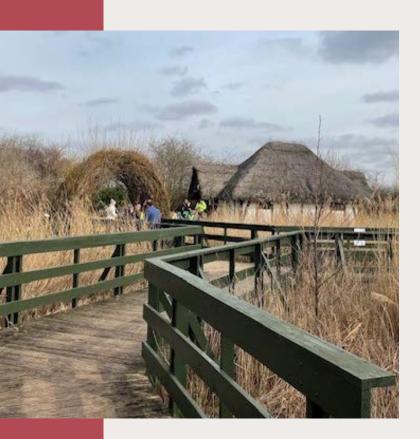
Increasing knowledge and awareness of nature

### 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.

Increasing knowledge and awareness of nature



# 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, upcoming work on 'Dark Skies' plus reptiles and amphibians plans.

Increasing knowledge and awareness of nature

# 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.

- Increased connectedness of nature will support biodiversity, allowing species to move around the borough to different habitats.
- Encouraging and supporting residents in looking after their local green spaces will promote community cohesion and community involvement for local people.

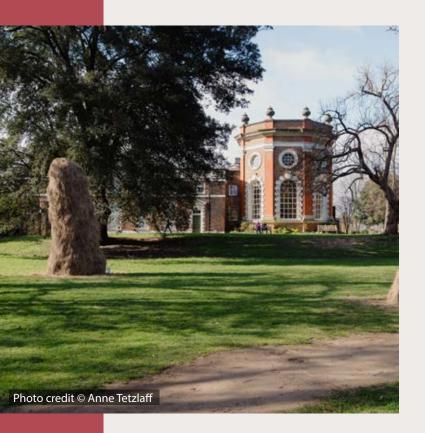
Renewing our relationship with nature

### Renewing our relationship with nature



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 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 borough's 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 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.

- Increased connectedness of nature will support biodiversity, allowing species to move around the borough to different habitats.
- Encouraging and supporting residents in connecting with nature will promote community cohesion and community involvement for local people.
- Physical and mental health benefits will come from increased activity in natural spaces.

# Our resources

- moving to a zero-waste economy



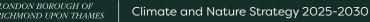
### Our vision

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 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 products or goods, marketing these goods for consumption, and disposing of these goods or whatever remains 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 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.

Photo credit © Anne Tetzlaff





## 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.



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

Richmond's 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.

## 2043

#### 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.



#### Postcard from the future

Created at the Richmond Primary School 'Eco Summit', April 2025

What I don't want to see in the Puture NO PLASTIC WASHA VO in my forture TOP POST CARD Swap I would like to see more electric cars. less Bactorys and sources that produce pollution. I want there to be less extinct animals and more new species the of animals.

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

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



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. Our aim is to reduce the amount of food, textiles, plastic, electricals and batteries in our waste streams so that these materials 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.

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



## 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.

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

## 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 so materials can be reused, repurposed and recycled . 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

- Reducing the amount of residual waste and increasing the amount that that can be reused or recycled will mean a lower carbon impact from our waste.
- Reducing residual waste will reduce costs for disposal and create new waste streams that will have a market, reducing costs for the Council.
- Sustainable actions on waste at home can act as a catalyst for other more sustainable behaviours in the longer term.
- 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

# Creating the infrastructure for a zero waste economy



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.

Creating the infrastructure for a zero waste economy



## 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. We will improve the facilities at Townmead Household Reuse and Recycling Centre to enable more circular, zero waste activities for residents.

## What are the benefits

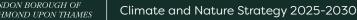
- Increased reuse and repair of items will lead to reduced carbon emissions.
- A zero waste, circular economy will create new jobs and economic activity in the zero waste and green sector.

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

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



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.



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



#### What's already in place

Alongside the Library of Things, 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.

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

#### 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 reduce waste and promote reuse and repair. This will include activities 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.

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

- Promoting and encouraging community activity on zero waste and the circular economy will build community skills and connections as well as community resilience through supporting local solutions and self-sufficiency.
- 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.

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

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



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.

Collaborating and partnership working to promote a zero-waste and 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.

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

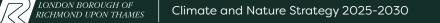
#### What are we going to do

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

- Promoting and encouraging sustainable local businesses will bring economic benefits.
- Promoting and encouraging community activity on zero waste and the circular economy will build community skills and connections as well as community resilience through supporting local solutions and self-sufficiency.

## Our resilience - preparing for a changing climate





### Our vision

We are working to adapt to a changing climate and increase the resilience of the borough to the impacts of climate change. Climate adaptation is a process or action that changes something (a building, a locality) so that it is better able to survive in a climate and environment that has changed. Climate resilience is the capacity or ability to anticipate and cope with shocks and events that come from climate change, and to recover from the impacts. As a Council, this work is vital to ensure we are able to continue delivering our services, despite the risks that climate change poses. 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.

Photo credit © Anne Tetzlaff



## 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 over half (54.3%) current levels and winter precipitation increasing by over a quarter (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.



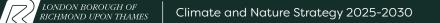
## 2030 What will Richmond upon Thames look like in 2030

By 2030, Richmond upon Thames will be a leader in adaptation and resilience. Climate-related 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.

## 2043

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

Richmond upon Thames will be a sponge borough, making its contribution to London being a sponge city. The widespread implementation of naturebased 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.



#### Postcard from the future

Created at the Richmond Primary School 'Eco Summit', April 2025



Embedding climate adaptation and resilience across the Council

## Embedding climate adaptation and resilience across the Council



Ensure decision-making on climate 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.

Embedding climate adaptation and resilience across the Council



## 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.

Embedding climate adaptation and resilience across the Council

## 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

- Embedding adaptation and resilience across the organisation will maximise the co-benefits from projects.
- Early consideration of what adaptation and resilience measures in projects can be included will create long lasting infrastructure that requires less costs in the long term.

Ensuring a joined-up approach to adaptation and resilience

# Ensuring a joined-up approach to adaptation and resilience



We aim to identify and leverage opportunities to increase funding and maximise efficiencies around adaptation and resilience work, enabling the Council to deliver more for the borough. By working with internal and external local and pan-London partners to reduce climate impacts, we aim to ensure a consistent approach to adaptation across the borough and across London, promoting more joined-up working and collaboration.



Ensuring a joined-up approach to adaptation and resilience



#### What's already in place

London Borough of Richmond upon Thames is part of the London Councils Resilient and Green climate programme, which is working with other London boroughs to better understand the risks, challenges and opportunities on climate adaptation and resilience and to develop solutions and interventions including data, information, resources and projects.

Ensuring a joined-up approach to adaptation and resilience

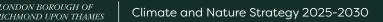
#### What are we going to do

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 and increasing efficiencies by embedding adaptation and resilience across the Council.

We will continue and expand our 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.



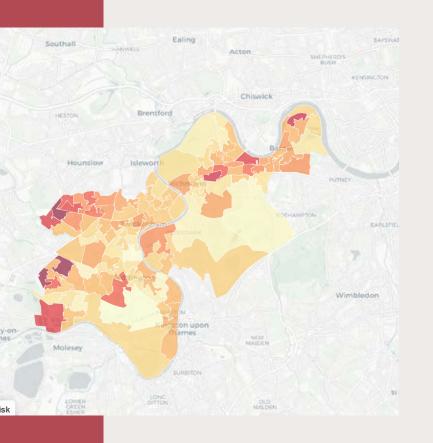
Using data to adapt to a changing climate and increase the resilience of the borough

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



We aim to use data to better understand the buildings, infrastructure and most importantly communities most at risk from climate extremes and implement measures to reduce these risks. We aim to increase our mapping of climate risk as well as the opportunities for communities to protect themselves during extreme weather events through public refuges and cool routes. We aim to better understand and monitor the impact of climate change on critical infrastructure and use data and mapping to enable joined-up thinking and information sharing across the organisation and the borough.

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



## 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.

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

#### What are we going to do

We will join up the work on retrofit which is required to meet the borough's target of being net zero by 2043, and ensure that buildings are resilient to extreme weather events as well as low carbon. We will improve our mapping of climate risk across the borough and include those places that will help address these risks during extreme events, such as cool routes and public refuges. We will this mapping and data to identify priority locations and interventions to protect infrastructure and communities, and work with relevant stakeholders rollout adaptation measures to reduce risks to critical infrastructure. We will 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

- Incorporating adaptation and resilience into boroughwide retrofit approaches will support our target of net zero and create resilient and comfortable homes.
- Widely available information on climate risks will help communities and partners to develop their own actions.
- Using a risk based approach will address inequalities faced by those communities who are most vulnerable to the impacts of climate change.

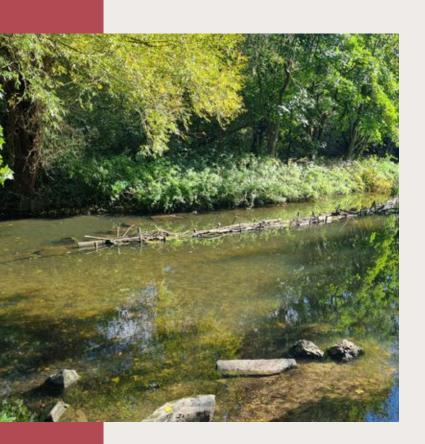
Implementing effective, nature-based adaptation and resilience measures across the borough

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

#### Aim

We aim to put in place effective measures that address climate risk, prioritising nature-based solutions that maximise the cobenefits from these interventions. We aim to inform the public of the risks posed by climate change and the activity we are doing to address this. We aim to ensure that robust and effective early-warning systems are in place.

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



## What's already in place

Community Bluescapes are implementing nature-based solutions to flood management in the Beverley Brook catchment, which are being co-developed with the community to maximise co-benefits and create community involvement. Likewise, Friends of the River Crane Environment (FORCE) are implementing nature-based solutions to flood management in the River Crane.

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

#### What are we going to do

We will prioritise nature-based solutions in our approach to adapting to climate change, including measures to promote urban cooling, effectively store and manage water, natural flood management strategies, and habitat management. We will improve public awareness of the range of risks associated with climate change. We will engage with populations and communities who are exposed and vulnerable to climate change and support them in implementing measures that reduce their vulnerability to climate impacts. We 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 benefits, including increased space for wildlife, improved mental and physical health and improved ecosystem services (such as air and water quality).
- Prioritising vulnerable populations will 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

## Monitoring and evaluation of adaptation and resilience



We aim to review and assess the costs and benefits associated with climate impacts and adaptation in Richmond upon Thames. By continuing to use external frameworks to validate, report and support our work on adaptation and resilience we aim to develop and improve our internal monitoring so we can monitor, assess and prepare for potential global shocks associated with climate change.



Monitoring and evaluation of adaptation and resilience



#### 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 achieved an A-rating (the highest) in 2022, 2023 and 2024.

Monitoring and evaluation of adaptation and resilience

#### What are we going to do

We will regularly review and assess the costs and benefits associated with the impacts of climate change and adaptation and resilience so we can continually improve our understanding of the actions and investments required as well as the long-term savings associated with this investment. We will continue to use and identify opportunities for validating, reporting and supporting its work on adaptation and resilience, including CDP. We will monitor, assess and prepare for potential global shocks associated with climate change, 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.

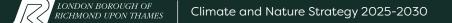
## Accelerating actions

The two areas outlined on the following pages contain actions that the Council can take to accelerate and facilitate progress against the earlier 5 key action areas.



ON BOROUGH OI

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



### Our vision

As part of our work to make the borough net zero by 2043, the Council needs to take the lead in reducing our own carbon emissions and ensure 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 the carbon and environmental impact from the goods and services we buy, the Council will be able to show leadership on climate action to everybody in the borough.

Photo credit © Anne Tetzlaff



Our Council

# 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. The carbon emissions for the Council are set out below:

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
		0	0
Scope 2 (Electricity)	3,456	(location-based emissions 1,631)	(location-based emissions 1,698)
Total Carbon Emissions	6,414	2,372	2,100

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

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

Scope 3 emissions are all indirect emissions not included in Scope 2 emissions, which occur from the production of the organisation's products or services (upstream) and from the use and disposal of the organisation's products or services (downstream). 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.



# 2030

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

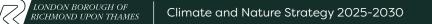
By 2030 the Council will be carbon neutral as an organisation – meaning that we will have significantly reduced our Scope 1 and 2 carbon emissions and be offsetting any remaining carbon emissions. Our buildings will be energy efficient, use electrified heating sources and generate our own power through solar panels and our vehicle fleet will be electrified. Our vehicle fleet 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.

# 2043

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

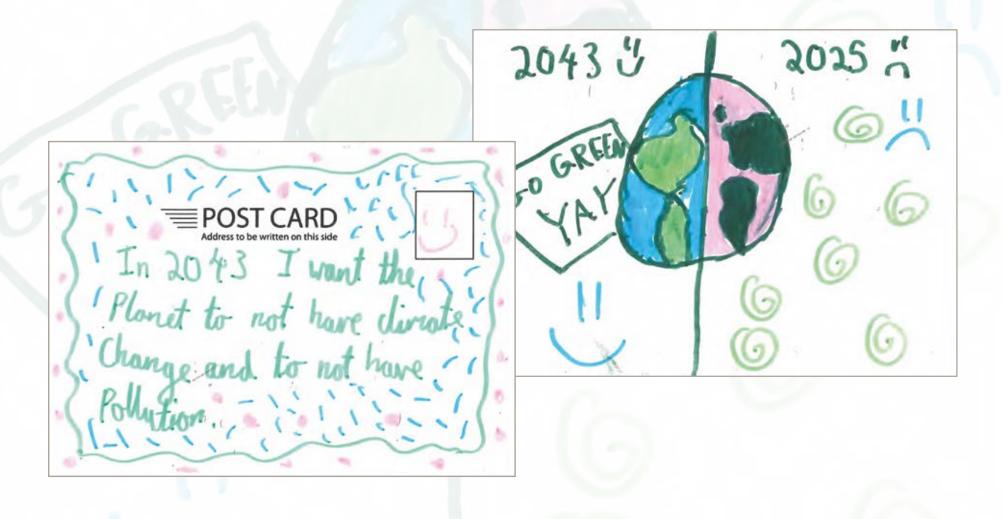
In 2043, the Council will be well on its way to being a zero carbon organisation. Our buildings will all be highly energy efficient and no fossil fuels will be used to heat or power any building. The vehicle fleet will be fully decarbonised, with fewer larger vehicles and more smaller vehicles such as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





#### Postcard from the future

Created at the Richmond Primary School 'Eco Summit', April 2025



Our Council

Decarbonising Council Buildings

# Decarbonising Council Buildings



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. Significant external funding has been brought in from government grants to support delivery of this work with just over £14.5m secured from a range of funding sources and most recently £7m as part of the Public Sector Decarbonisation Scheme.

#### 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 emissions and make a significant contribution towards our goal of being a 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

- Reduced long term energy costs for the Council as we become more selfsustaining in our energy generation and better energy security from potential energy price increases.
- Removing gas boilers will improve local air quality and improve the health for staff and local residents.

Our Council

**Decarbonising Council Vehicles** 

## Decarbonising Council Vehicles



Our aim is to move our fleet away from fossil fuel based vehicles and to decarbonise the vehicle fleet 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

- Improved air quality with positive impacts on health for residents and staff.
- Long term cost savings for the Council from lower running costs of EVs 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 reduce air pollution from particulates associated with wear and tear of wheels and brakes.

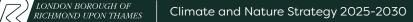
#### Our Council

**Decarbonising Council Procurement** 

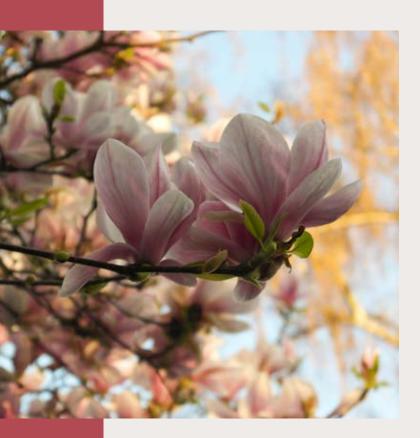
# Decarbonising Council Procurement



The Council spends an estimated £183.5m per year on goods and services (procurement) with a further £111.4m spent on joint procurement with other local authorities, including 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.



Decarbonising Council Procurement



#### 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 and deliver our Responsible Procurement Strategy 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

• Supporting sustainable local businesses and creating employment opportunities for local people.

#### Our Council

A climate change ready organisation

# A climate change ready organisation



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.

A climate change ready organisation

#### **Carbon Literate Organisation** Bronze



# 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

- Building climate resilience into our operations will enable the Council to withstand and recover from climate-related disruptions, ensuring continuity of services.
- A proactive approach on climate action can reduce costs for the Council by identifying sustainable long term solutions.
- Demonstrating leadership in climate action will enhance our reputation, attract partnerships, and position us as a forward-thinking Council committed to sustainability and climate action.

- supporting climate action

across the borough



### Our vision

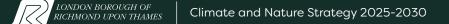
Richmond upon Thames has a rich ecosystem of community driven climate action from the multitude of community and 'Friends of Parks' groups, active sharing & swapping social network and WhatsApp groups, a flourishing voluntary and community sector active on climate change, budding 'eco committees' in 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.

Photo credit © Anne Tetzlaff



## 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.



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

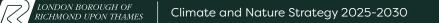
We will have a growing ecosystem of residents and communities driven by a shared ambition and agency for action towards creating a greener thriving borough for all. We will have a growing awareness of the individual and collective responsibilities for low carbon living and a healthy open dialogue between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

# 2043

#### 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.





#### Postcard from the future

Created at the Richmond Primary School 'Eco Summit', April 2025

POST CARD Address to be written on this side m I can't believe how far we have come Briony Hughes goes beyond Koyal -lolloway Our Communi my neighbours the human are trees, insects, water bodies. everything and everyone in Tocal ecosystem -Co-habiting + Co-thri ane

Communicating on Climate Change

# Communicating on Climate Change



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.

Communicating on Climate Change



#### 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 Packs, 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, creating a sense of collective purpose, appetite for change, valuable cross-sector insight sharing and momentum.

#### What are the benefits

- Increased community cohesion and belonging through combined action on climate change.
- Improved physical and mental health and wellbeing through community involvement.

Enabling and supporting community climate action

# Enabling and supporting community climate action



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.

Enabling and supporting community climate action



# What's 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 have close links and partnerships with key voluntary and community organisations who are active on the environment in the borough, including Habitats & Heritage, Barnes Common Limited and the Wildfowl and Wetland Trust on Community Bluescapes.

# 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 local events or initiatives 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

- Increased community cohesion and belonging through combined action on climate change.
- Improved physical and mental health and wellbeing through community involvement.

Working with businesses & partners

# Working with businesses & partners

#### Aim

We aim to support our work with our businesses to decarbonise their operations, take advantage of green economic growth and develop a workforce with green skills. We aim to collaborate across the borough to facilitate sustainable approaches, working in partnership with key organisations in the borough to align and combine our efforts on climate change, as well as with neighbouring boroughs who have similar ambitions and goals to London Borough of Richmond upon Thames.

Working with businesses & partners



# What's already in place

As well as the open Richmond Sustainability Forum for partners to attend, we have offered the 'Making Business Greener' scheme in partnership with Green Mark which offers local businesses the opportunity to understand and improve their environmental impact and develop a structured framework for fostering sustainable business growth. We have also launched Richmond Spark in partnership with Sustainable Ventures, which provides advice and support for climate technology focused start up businesses and organisations

# 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, forums and connections between our partners in the borough. We will continue our collaboration with other boroughs on a pan-London and sub-regional basis, sharing information and creating projects that deliver on a wider scale than the borough.

We will support businesses with the information and tools they need to reduce their carbon emissions and improve their impact on the environment with experts.

#### What are the benefits

- Increased partnership working will unlock new ideas and greater reach in what the Council can do than by simply working alone.
- Supporting businesses to be more sustainable will promote green skills and economic growth within the borough.



# Photography Credits

We have incorporated photography through this document from the 'Cultural Reforesting' programme from the Richmond Arts Service and would like to thank the artists for their permissions.

Our Cultural Reforesting programme has supported interdisciplinary research projects and artistic experiences from the following artists, along with the question they have explored at Orleans House Gallery and the wider Borough:

Ackroyd and Harvey - How can cities adapt to a rapidly warming world through increased tree-planting?

Mónica Alcázar-Duarte - Why is ancestral knowledge completely disassociated from contemporary knowledge systems?

Ama Josephine Budge - How do the hauntings of the River Thames – its histories of toxicity, colonialism and climate change – urge us to change how we interact with our climatechanging landscape?

Finn Chatwyn-Ross of Crescendo - How can we use music to foster our relationship with nature?

Bryony Ella - (How) Do our (urban) bodies hold the sun?

Abigail Hunt - How should we be held responsible for the objects and artworks we create and the things we leave behind through the process of making?

Adam Kammerling and Jess Ihejetoh - How do we invigorate our relationships with nature through mindful activities and play?

Kinship Workshop - How do we re-centre nature intentionally and every day? How can we do this in our bodies, in how we think and act in the world, even when daily life is very busy? Andrew Merritt of Something & Son - How do we (re) create flourishing forests full of food?

Eloise Moody and Vicky Long - How wrong are we likely to have been?

Ivan Morison - What is the radical in the rural context? What radical shifts are needed in agriculture?

Harun Morrison and Kim Coleman - What are the needs for darkness in urban space? And how can we communicate findings in a way that affects future policy?

Nestor Pestana - How can art encourage bat populations to roost?

**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."

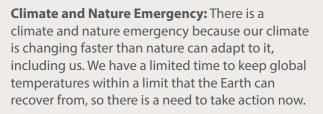
**Carbon Neutral:** An activity, company or organisation which offsets the same amount of carbon which it emits, so that the emissions produced, and the offsets/carbon capture are equivalent and balance each other out.

**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 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

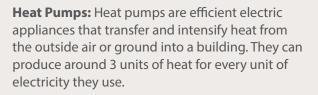
**Emissions Scopes:** There are three scopes which cover carbon emissions. Scope 1 covers emissions from sources that an organisation owns or controls directly, such as burning fuel for vehicles. Scope 2 are emissions caused by the generation of energy used and purchased by an organisation, such as emissions 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.



**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.

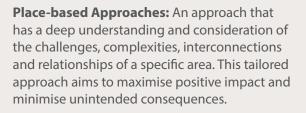
**Location-based Emissions:** Location-based emissions refers to what you physically consume at your operations site or business facility. It's calculated using solely the average emission intensity of the local grid where you source power. **Market-based Emissions:** Market-based emissions are calculated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



**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):

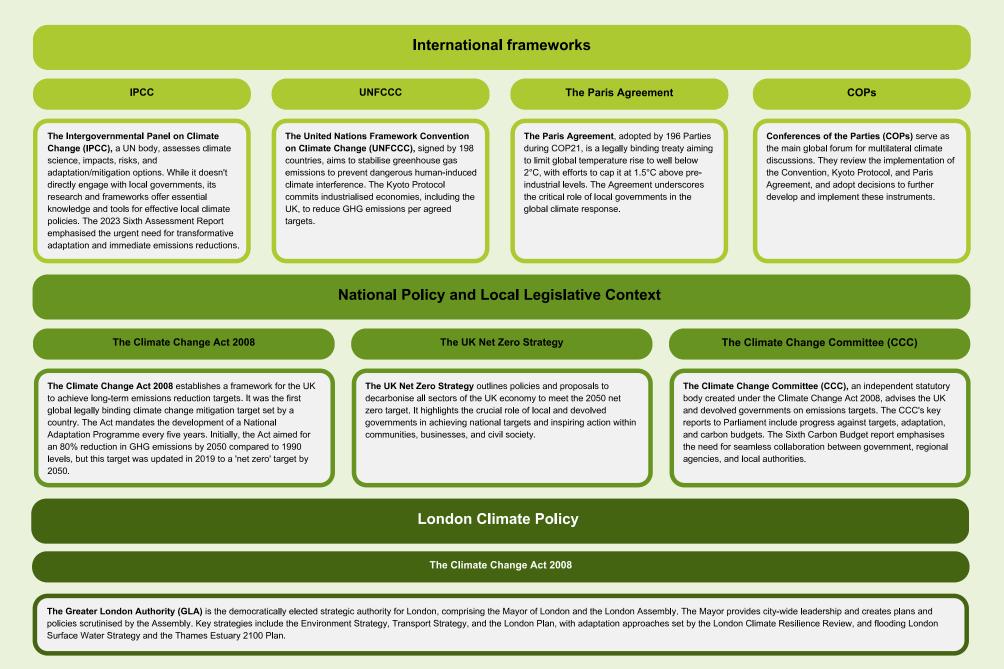
Natural water management practices that aim to slow the flow of water that runs off a site whilst improving biodiversity. Examples include rain gardens, green roofs, ponds and more. **Stakeholders:** A person such as an employee, customer, or citizen who is involved with an organization, society, etc. 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: for wheelchair users

**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.

#### The climate policy and legislative context





**Richmond upon Thames** 

Climate and Nature Strategy 2025-2030

