

# Strategic Climate Action Plan

Adopted July 2021



**HILLINGDON**  
LONDON

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# Foreword

Our climate is changing rapidly, and the consequences are alarming. Consequences that are not a distant problem but are happening now. This is a global crisis with more and more reports of severe and lasting consequences; wildfires, floods, droughts, and storms all more commonplace. In the UK the frequency, duration and strength of storms and extreme weather are also far more common.

The risks are escalating and the need for more decisive action more prevalent than ever. The time for discussion on whether and how much the climate is changing is over.

The council has already taken action. In 2007 we signed the Nottingham Declaration on Climate Change. This led to a climate change strategy which has seen council carbon emissions reduce by over 40 per cent during the last ten years.

Yet further action is required as the challenge intensifies. The council responded swiftly to the will of the residents in declaring a climate emergency which demonstrates the need for even greater effort from everyone. The council is not alone in that. As a leader in the community and responsible for shaping the future of the borough it is uniquely placed to set higher standards and achieve meaningful results.

The council will be carbon neutral by 2030. That is our commitment to our residents. It's ambitious and challenging but it is also necessary. We also commit to providing leadership and direction for others to follow; to give everyone the chance to contribute to the task of responding to this crisis.

This new strategy provides the framework for our response to the challenge. It reaffirms the commitments already made, demonstrates the progress to date and sets out how we will drive real change through ambitious actions.

We consulted widely through spring and early summer 2021, engaged positively and actively sought views and input from all those in the borough who will play an important role in meeting this challenge. We also ran a school's competition to raise awareness of the plan and the need for action in more general terms. The response to the consultation was impressive and commensurate with the crisis we are facing. Those responses indicate the depth of feeling in the subject and the willingness to be part of the solution.

Thank you to all those who responded, engaged, and provided views.

**Councillor Eddie Lavery**

Cabinet Member for Environment, Housing and Regeneration

# Preface

In early 2021, a draft strategic climate action plan underwent a 12-week public consultation and received a positive response from residents. Over 500 further suggestions came forward from residents and a detailed response from Hillingdon Friends of the Earth and several other interested groups was also received. This is clearly a matter of great importance for our community.

In response, the Strategic Climate Action Plan sets out our overarching plan to respond to the climate emergency. The plan details a clear and simple vision for Hillingdon and identifies the activities it will undertake in relation to the climate emergency declaration. These activities are guided by six corporate climate commitments and aligned to nine themed areas of activity set out in this plan.

The detailed activities needed to deliver this plan and ultimately meet the corporate commitments, will be set out in a series of specific action plans, the titles of which are summarised within this document.

# The Vision

**To become the greenest London borough, to protect and enhance the environment, and to provide a brighter prospect for future generations.**

## Corporate Climate Commitment 1

**To lead and inspire our residents, businesses, and schools to reduce their own carbon emissions.**

Where we cannot directly control emissions, we intend to identify the opportunities to enable others to reduce theirs. We want to work with residents, schools, and businesses to enable them to identify their carbon footprint and to put in place actions to reduce it.

Typical examples are assisting private sector homeowners with insulation and renewable power schemes, creating the infrastructure for charging electric vehicles and, assisting each school to develop its own carbon reduction plans.

## Corporate Climate Commitment 2

**To become 'Carbon-Neutral' by 2030.**

This target applies to public access buildings and sites where we pay for the energy supplies, our vehicles and highway assets like streetlighting and car parks.

We will invest in energy saving measures to reduce carbon across the property portfolio. To offset remaining carbon, we will identify schemes which allow us to generate larger scale renewable power in the borough, while supporting a range of other community objectives.

The council has further capability to offset, through existing carbon sequestration in our woodlands and tree planting activities. If any carbon remains to be offset by 2030, the council will investigate the most viable method which supports investment within the borough.

Where we do not have direct financial or operational control over energy, such as council housing and schools, we will use existing resources and seek additional government funding to achieve carbon reductions over the lifetime of this plan.

## Corporate Climate Commitment 3

**To achieve 100% clean electricity across the council's services by 2030.**

From 2020 all the electrical power to our assets was sourced from certified renewable sources. The energy was secured through a London wide contract which runs until 2024. This means we can be assured that our electrical power component of our service is currently zero-carbon.

We still use fossil fuels for heating and hot water and this use needs to be reduced. Over the lifetime of this strategy, we will replace and upgrade these heating systems with more efficient, low carbon and renewable power alternatives such as solar thermal and air and ground source heat pumps.

In addition, some fleet vehicles will require diesel fuel until a viable electrical replacement can be found. Any remaining fossil fuel use will be mitigated by the carbon offset programme.

## Corporate Climate Commitment 4

**To raise awareness and develop the potential of young people to respond to the challenge of the climate emergency.**

The climate action plan is a long-term commitment and we recognise the role that young people will play in the future of Hillingdon, and the planet. Supporting our community leadership role, the council will engage with younger people across the borough, raising awareness of the issues in schools, further and higher educational establishments and those starting out in employment.

## Corporate Climate Commitment 5

**To enhance opportunities for biodiversity across the borough and particularly in urban areas.**

Responding to the climate emergency is not just about reducing or removing carbon emissions. It is about recognising a much wider threat across all aspects of our environment. We are responsible for large sections of open areas and waterways that are an extremely important for wildlife and, amenity for residents. We can find better ways to use green and open space to support flora and fauna, manage flooding, integrate trees and planting schemes into urban environments and re-establish wildlife corridors.

## Corporate Climate Commitment 6

**To remain open to the opportunity to go further, to be innovative and creative to exceed the stated goals wherever possible.**

This plan is our initial response to the climate emergency. It is fundamental and vital we play a lead role in generating new funding, influencing policy, and lobbying for legislation to support positive carbon reducing activities for our borough.

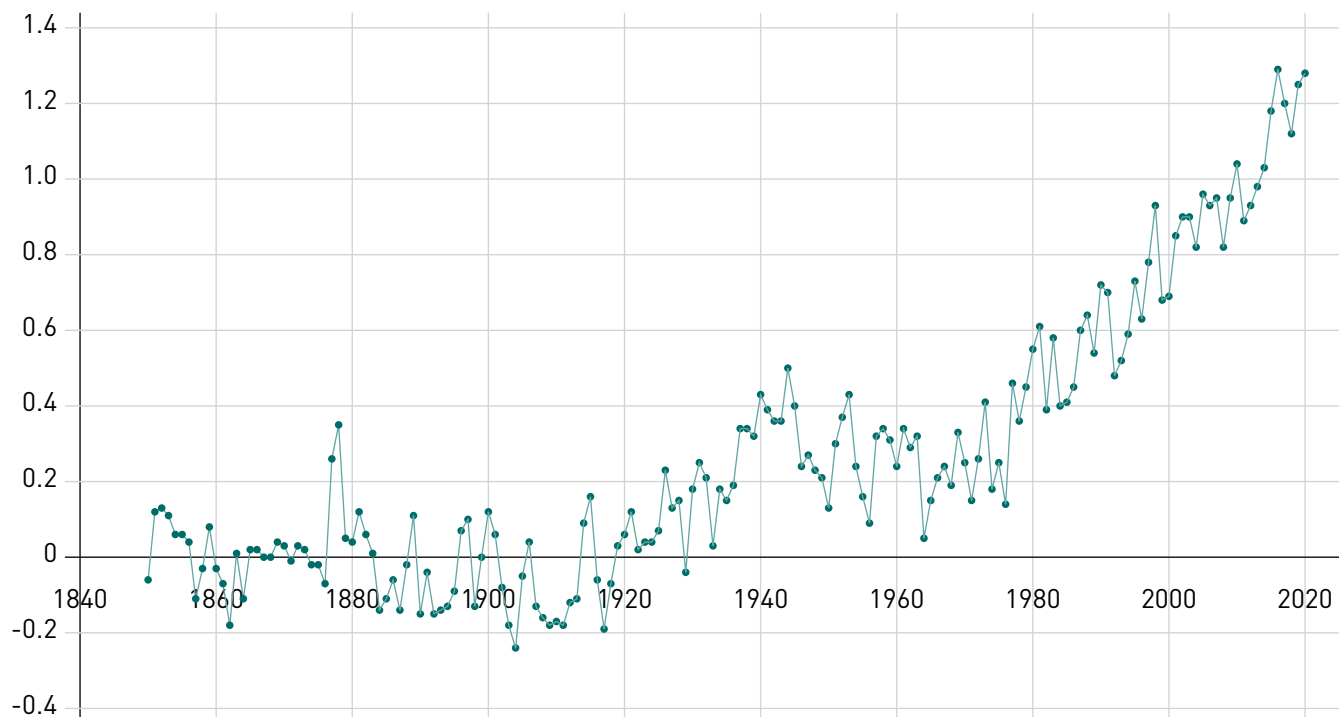
# 1. Introduction

## What is climate change?

The world's climate is changing due to increased levels of gases such as carbon dioxide in the atmosphere. These 'greenhouse' gases occur naturally in the atmosphere, trapping heat that comes from the sun like the glass in a greenhouse. The 'greenhouse effect' is a natural occurrence and without it the Earth would be over 30 degrees cooler and uninhabitable.

However, due to human activities such as the burning of fossil fuels (oil, gas and coal) and deforestation, concentrations of greenhouse gases in the atmosphere are rising and making the natural greenhouse effect more pronounced, trapping more of the sun's heat and resulting in a rise in the earth's temperature.

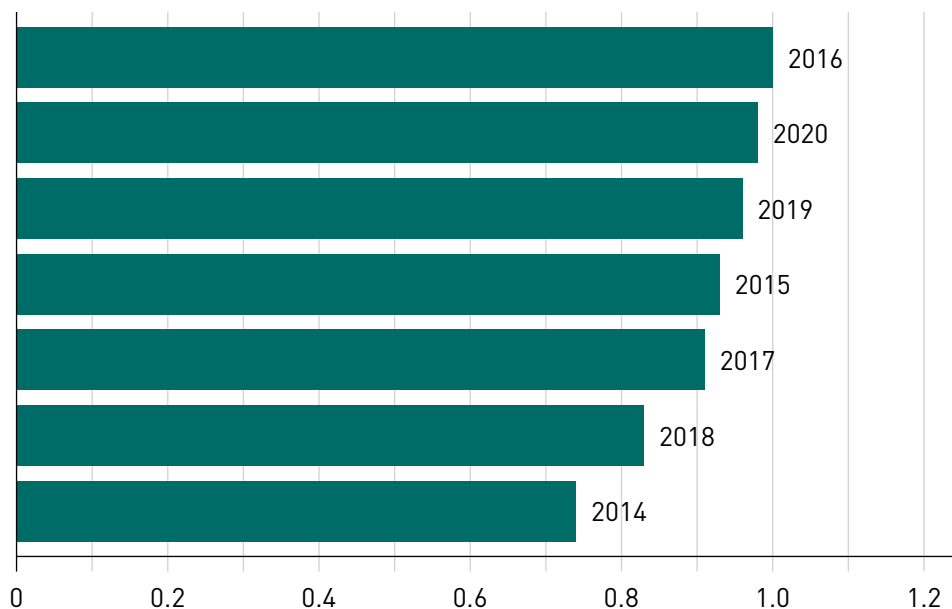
## Global temperature change 1850 to 2020 (Celcius)



Various gases contribute to amplifying the natural greenhouse effect. However, the main contributor to the global warming that we are now seeing is carbon dioxide. Scientific research has demonstrated that carbon dioxide levels are higher than at any time in the past 650,000 years, and this has resulted in gradual warming of the world's climate.



## Warmest years on record (increase from 20th century average)



## Why does climate change matter?

Uncontrolled climate change will lead to higher global temperatures, rising sea levels and more extreme, unpredictable weather conditions across the world. These events and their knock-on effects, such as drought and its impact on food production, or the flooding of coastal areas where many people live, will put hundreds of millions of lives at risk. This is already occurring in the developing world.

Global problems are all too common and widely reported. However, the UK is far from immune from the impacts of climate change. The Environment Agency's 2020 State of the Environment Report presents some worrying consequences of climate change:

### Water resources

Climate change will affect the amount and timing of rainfall that supports river flows and replenishes groundwater. It will also influence the demand for water and its quality, as well as the way land is used – all of which will put pressure on water resources.

Summers are likely to get hotter, significantly increasing demand for water. Winters are likely to get warmer and wetter. Although average summer rainfall is not predicted to change, more rainfall may come in big downpours. This could lead to droughts and floods, possibly at the same time. This would increase the damage caused and increase the risk of disasters such as wildfires. Increasing frequency of both drought and summer heatwaves could lead to a much higher likelihood of these extreme events occurring at the same time.

River flows are predicted to increase in winter and decrease in summer. Groundwater supplies may decrease over the 21st century. Reduced summer rainfall and increased summer evaporation would negatively affect wetland plant and animal communities, particularly in rain-fed wetlands. Increased areas of stagnant water during droughts, coupled with increased temperatures could lead to the spread of mosquito borne diseases such as dengue fever and West Nile virus.

Treatment plants, pumping stations and sewers that are designed to cope with the past and present climate may no longer be adequate. The reliability of existing reservoirs, groundwater sources and river intakes will change. Some infrastructure, critical for providing water supplies, will be more vulnerable to flooding. Agricultural production may be negatively affected by water



shortages during warm, dry summers, particularly in the south and east. Wetter autumns and winters will also reduce productivity by disrupting the timing of farm management activities, and by causing increased flooding in low-lying agricultural areas. Valuable ecosystem services such as biodiversity and pollination provided by well-managed agricultural land are also threatened by the impact of climate change on water resources.

*Environment Agency: State of the Environment Water Resources Report, 2020*

Closer to home, there are likely to be problems in Hillingdon related to flooding, either from rivers, sewers, or surface water as well as overheating in the hotter summer, causing evacuation of vulnerable people such as the elderly and schools. Water shortages across London are also a likely reality as summers continue to get hotter and drier.

The changing climate is not just about environmental impacts. It has significant consequences for the population too and not just directly from issues such as flooding but wider implications for health.

## **Health**

The health impacts of a changing climate will mainly be felt through changes in temperature, disease, and pollution. High temperatures can affect health and cause premature death. Older people and those with underlying illnesses are more at risk and the numbers will increase with an ageing population as temperatures increase. Heat related deaths may increase from 2,000 to 7,000 per year by the mid-2050s. Milder winters will reduce cold-related deaths by an estimated two per cent. This is likely to marginally reduce the total numbers of temperature related deaths overall, because there are so many more cold-related than heat-related deaths in the UK. Hot weather is also known to increase aggressive and violent behaviour.

There may be an increase in frequency of episodes of high air pollution caused by weather patterns such as heatwaves. There is evidence that pollen releases may increase, affecting hay fever symptoms. Higher temperatures will increase the suitability of the UK's climate for invasive species and increase the risk of them spreading diseases. Native disease vectors such as ticks and mosquitos may also increase in numbers or geographical range as temperature and moisture levels change. For example, hot, dry weather can lead to increased areas of stagnant water, which would be likely to increase the spread of mosquito-borne diseases, should they be introduced. Land-use change such as creating wetlands may also contribute to mosquito abundance.

*Environment Agency: Statement of the Environment Report, 2020*

The implications of climate change are dramatic, threatening and will prove costly, not just to the environment or financial resources, but also to the health of residents and communities. This is not a problem that will just affect faraway places, it will have direct consequences for the people of Hillingdon too.

## 2. A Positive Track Record

We have long established values and a consistent track record of activity in relation to carbon reduction. Over the last 10 years, many practical activities have continued to reduce our carbon footprint.

In 2009, emissions across our operations stood at over 21,000 tonnes of CO<sub>2</sub>.

By 2020 we had reduced this by 42 per cent to nearly 12,000 tonnes of CO<sub>2</sub>.

It is necessary to keep going though even though the challenge becomes tougher. For example, many of the 'quick wins' have already been taken meaning that even more concerted effort is required within the restrictions of pressurised budgets.

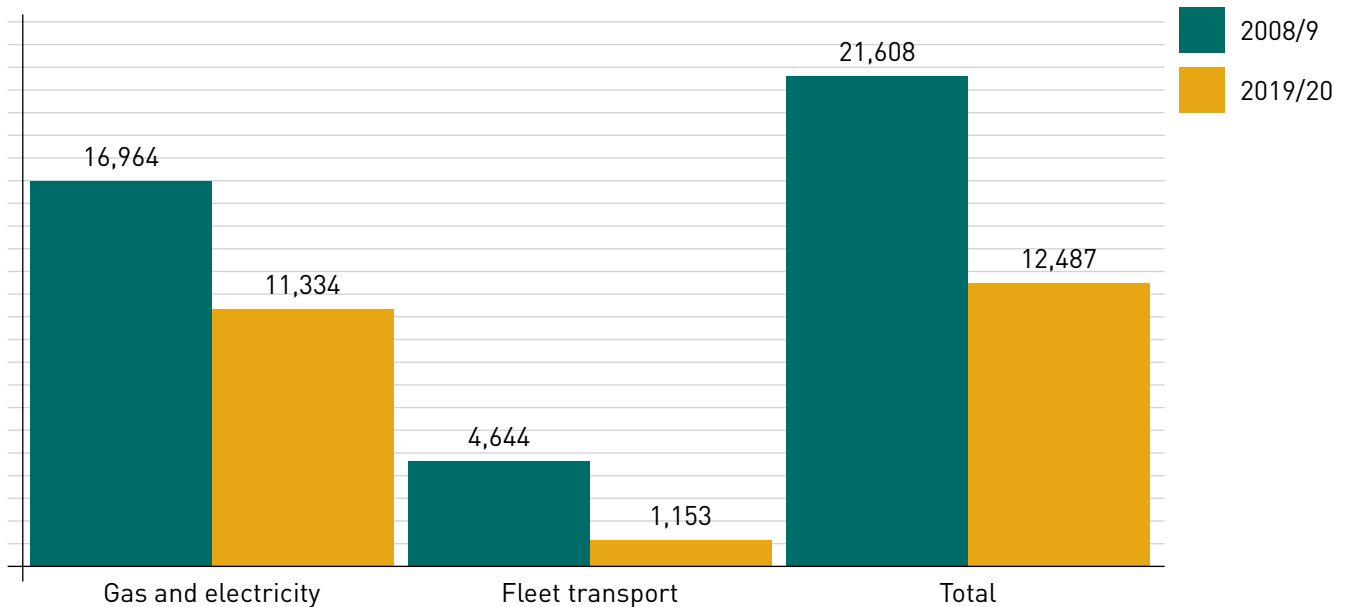
We are well set and well positioned to build on the success already made. Our belief is we must embed climate change in existing services to make more meaningful changes in an efficient and effective manner.

We want services to see carbon emissions in the same way as our financial budgets and for everyone to take responsibility.



Business area	2008/9 (tonnes CO <sub>2</sub> )	2019/20 (tonnes CO <sub>2</sub> )	Change (tonnes CO <sub>2</sub> )	Percentage (%)
Gas and electricity	16,964	11,334	-5,630	-33
Fleet transport	4,644	1,153	-3,491	-75
<b>Total</b>	<b>21,608</b>	<b>12,487</b>	<b>-9,121</b>	<b>-42</b>

### Emissions reductions from 2009 to 2020 (tCO<sub>2</sub>)



## How we have reduced our own carbon emissions

Between 2010 and 2020, we achieved a significant reduction in carbon emissions arising from gas, electric and vehicle fuels use. The reasons for this are two-fold. Investment in systems and technology (shown below) and behavioural changes across services which reduce carbon emissions and, the gradual decarbonisation of the UK electrical power network.

- Installation of low carbon and renewable technology at various community facilities around the borough.
- Active measures to improve local air quality and deter motorists from leaving their vehicle engine idling, particularly around schools.
- Private sector housing, All Tenures: working with government led schemes across our housing stock insulation and heating improvements.
- Higher efficiency heating and cooling systems within a range of buildings and facilities
- Council Housing properties: loft and cavity wall insulation, upgrades through reactive works upgrading inefficient communal lighting to LED and reducing the energy demand for homes. Schools and community centres: major refurbishment and new building work leading to higher energy standards.
- Smart metering installed for monitoring and to identify the buildings with the most demand. Active no idling campaigns at schools to reduce air pollution and to encourage more sustainable forms of transportation.
- Urban greening initiatives and the planting of new trees across the borough, including offering 5,000 free saplings for residents to grow.
- LED lighting upgrades across several corporate buildings including the Civic Centre
- Street lighting programme, replacing 23,700 sodium lights with more efficient LED units.
- Installation of solar panels across various buildings
- Five hybrid and three full electric cars purchased.
- 50 operational vehicles upgraded to EURO 6 specification, reducing engine exhaust emissions.

The London Borough of Hillingdon is already one of the greenest boroughs in London.

In terms of climate change these areas are of great importance. They act as carbon sinks. This means they take carbon dioxide and other nasty pollutants out of the air and replace it with clean air. They will continue to play a key role in helping us manage its carbon emissions.

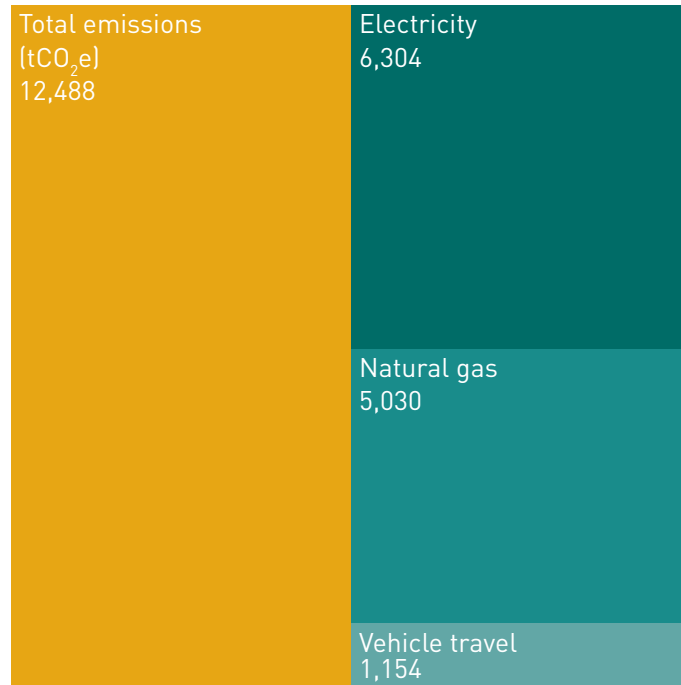
All natural vegetation performs a role as a carbon sink but trees are particularly important. The tree canopy coverage across London is continually under threat which is why we are seeking to protect our own trees where we can but also embark on a journey with large scale tree planting ambitions to increase the tree canopy coverage across the borough. This is not a long-term aspiration; this is already happening as demonstrated by our recent concerted tree planting campaign.

- 601 – Standard tree planting in highways and parks.
- 1,500 – Whips – New approach to highway tree belts – Long Lane (Trees for Cities).
- 100 – Sukura Cherry Tree Project.
- 3,500 – Whips – Colham Green (Trees for Cities)
- 50 – Standards – Colham Green (Trees for Cities)
- 12 Fruit tree orchard – Colham Green (Trees for Cities)
- 1,000 trees provided for our residents to plant.
- A total 6,763 trees planted with only 215 removed for various reasons (e.g. dead, dying, or dangerous)

### 3. The Starting Position

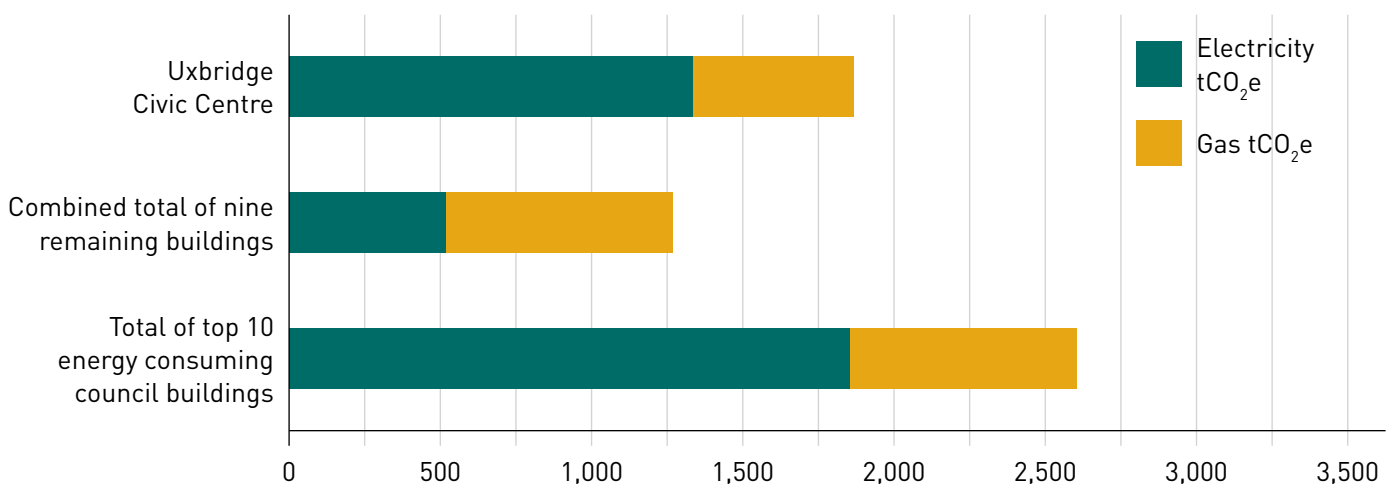
Over the last decade our performance on carbon emissions has been extremely positive. However, it also means that finding more savings becomes more difficult; we still have a long way to go for our operations to get to carbon neutral. The following sets out the starting position from which our objectives, goals and targets will be measured.

#### London Borough of Hillingdon carbon emissions (tCO<sub>2</sub>e) April 2019 to March 2020

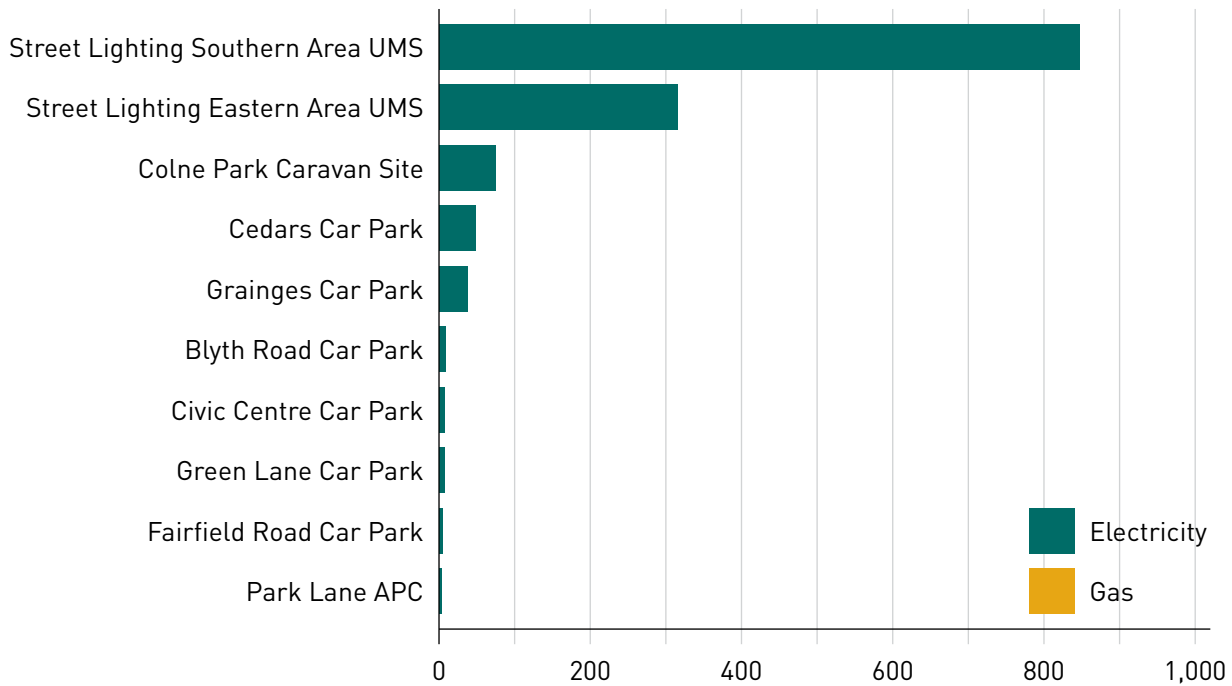


There are several challenges to achieving carbon neutrality across our operations. The chart below shows the highest ‘emitting’ buildings. Our Civic Centre sits clearly at the top of the operational building stock. This is an ageing building built in the 1970s and was not designed to accommodate the kind of modern services of office working, including the number of computers and servers, along with the operational demands of so many staff members. It has also recently been designated as a Grade II listed building by Historic England. These and other factors illustrate the innovative approaches the council need to consider when decarbonising existing buildings.

#### Total carbon emissions (tCO<sub>2</sub>e) associated with the top 10 energy consuming council buildings



## Top 10 (non-building) annual GHG emissions

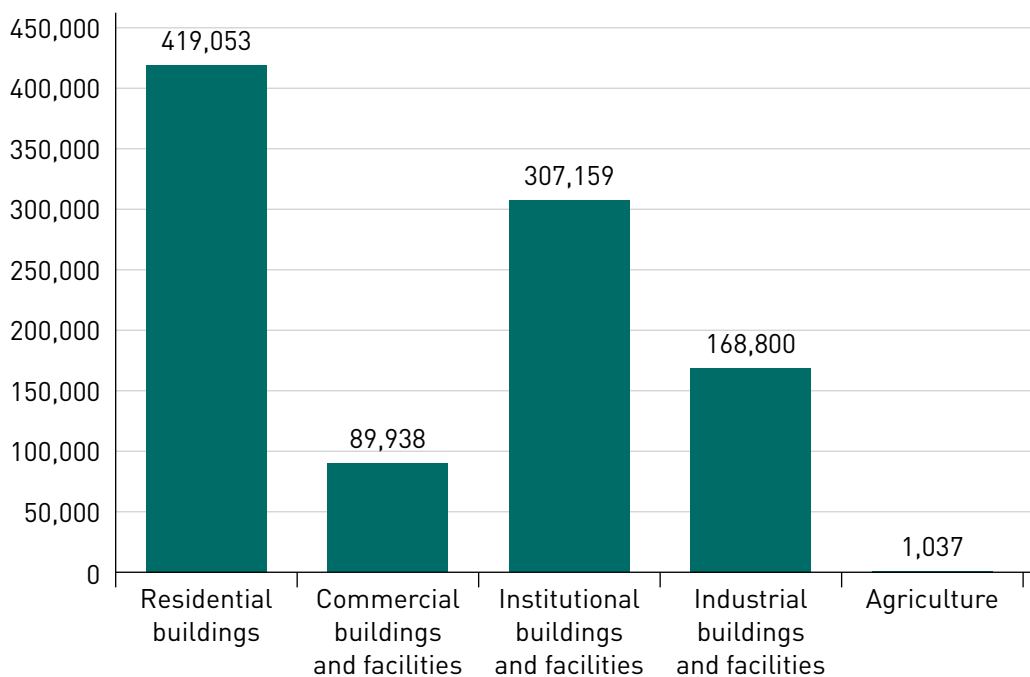


Streetlighting also represents a significant hurdle as it makes up the majority of the ‘non-building’ emissions.

For both the Civic Centre and streetlighting, innovative approaches will be required to find solutions to achieving the necessary emissions reductions.

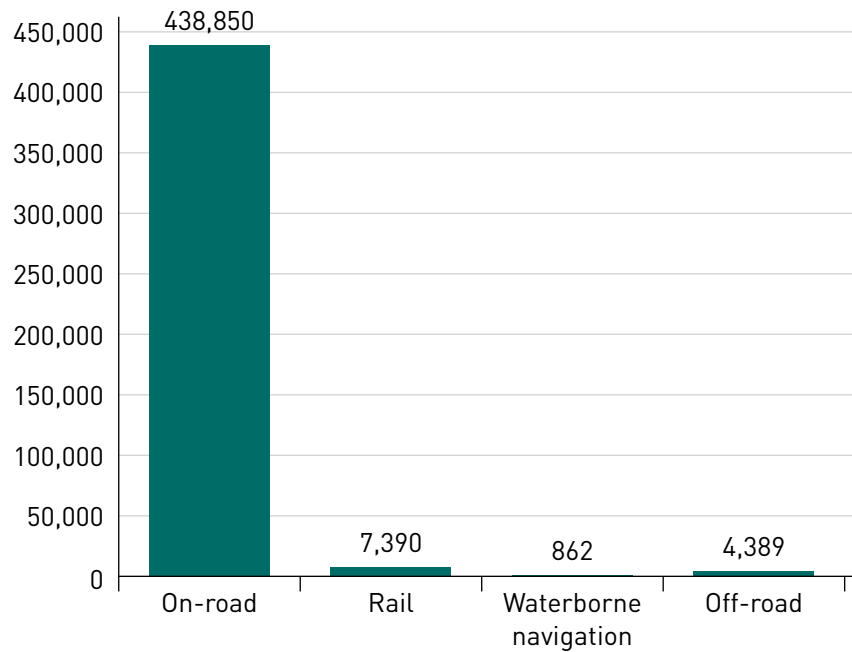
The council’s carbon neutral target relates to carbon emissions it has direct operational and financial control over. The carbon emissions for the borough are far bigger and include emissions from aviation, road and rail transport, businesses, and residential buildings, predominately where the council does not benefit from legal or operational responsibility for carbon emissions. As a result, the council intends to take a leadership, influencing, promoting, and supporting role to encourage those sectors outside of our control to follow our lead.

## Emissions (tCO<sub>2</sub>e) across Hillingdon from the built environment



(Data taken from Scattercities.com)

## Emissions (tCO<sub>2</sub>e) across Hillingdon from transportation excluding aviation



(Data taken from Scattercities.com)

As an outer London borough, Hillingdon has several major transport routes (e.g. M4, A40) into London. The emissions from vehicles travelling through Hillingdon are part of the borough carbon footprint.

Again, the council has no control over these types of emissions and action to reduce or offset these emissions must be part of a national series of actions.

However, we do acknowledge them and will take action to improve opportunities for sustainable transportation within the borough; i.e. through the promotion of new cycle routes and challenging TFL to improve bus services.

## 4. Taking Action

We have identified nine key themes to respond positively to the Climate Emergency. These themes are expanded into a series of sub-objectives and supported by a series of detailed action plans. Those plans will be developed through engagement and kept under review to ensure they are able to respond to any new and emerging opportunities and challenges.

Objective	Theme
C1	Community Leadership
C2	The Council's Own Operations
C3	Building Better Places
C4	Using and Producing Clean and Green Energy
C5	Waste Management
C6	Climate Change Adaptation and Mitigation
C7	Carbon Offsetting
C8	Sustainable Transportation
C9	Transparency, Communication and Reporting

## 5. The Strategic Objectives

### C1 Community Leadership

- C1.1** Align our service delivery to support and promote zero carbon community outcomes.
- C1.2** By the end of 2021 we will have a dedicated online learning resource to provide detailed advice and guidance on how to measure and reduce a carbon footprint.
- C1.3** To use our unique access to communities through, for example residents associations, to support community forums and groups in developing the council's climate actions.
- C1.4** Devise strategies to improve existing buildings, with access to government funding for energy efficiency and decarbonisation of residential properties and businesses.
- C1.5** To use our unique access to businesses to set up a borough wide Climate Change forum to develop ideas collectively and to collaboratively work towards achieving climate change objectives.
- C1.6** We will prioritise actions for fuel poor and vulnerable households, needing assistance with accessing grant funds to improve energy efficiency and reduce their energy costs.
- C1.7** By 2023 for all our managed schools and educational facilities to have their own Climate Action Plans in place with our support and assistance on how to unlock opportunities for low and zero carbon technology.
- C1.8** During 2021, for all non-Hillingdon managed schools and educational facilities to be contacted and encouraged to put their own Climate Action Plans in place by 2023.
- C1.9** To provide a dedicated online resource that is aimed specifically at children. To complement this with an annual schools climate action competition, to support learning and development in schools, offer opportunities to see real world examples of action being taken to tackle climate change and to identify 'young climate champions.'



- C1.10** To develop a schools engagement strategy to promote and encourage positive climate and environment action in accordance with the objectives and commitments in this plan.
- C1.11** To support, promote and raise awareness of the use of sustainable transportation and ensure resources are available to allow communities to make transport changes that do not rely on polluting private transportation
- C1.12** To provide a dedicated online resource to provide information on how to reduce a carbon footprint, where to access external funding (i.e. Government grants), information on what to do in a property, and how to improve an individual's environmental footprint. The online resource will also be a tool for providing examples, case studies and good news stories as examples for others to follow.
- C1.13** By the end of 2021 to develop and implement an annual engagement strategy that covers all interested stakeholders (e.g. residents, resident groups and associations, community groups, environmental bodies (i.e. Sustrans, Friends of the Earth and businesses).
- C1.14** To promote and support volunteer groups with dedicated climate and environmental objectives.

## Theme 1 Commentary

### Community leadership

Community leadership is the overarching commitment in this plan. We already have various platforms to bring people together to share ideas, raise concerns and work together to improve communities and the environment. To expand the platform, we will consult existing groups and encourage the formation of others with the purpose of establishing a specific climate change forum for our residents, schools and businesses.

We want to reach as many people as possible to ensure there is a collective response to the climate emergency.

### Expansion at Heathrow Airport

Heathrow Airport was a focal point of many responses to the public consultation on this plan. It is therefore necessary to reiterate **we remain fully opposed** to expansion of Heathrow Airport.

We are very aware of the carbon and climate impacts of aviation and the environmental effects associated with the airport. This was a key reason we joined a group of authorities in fighting the decision by the Government to expand Heathrow. We recognise that far more needs to be done regarding aviation at a global and national level.

For our resident's health, well-being, and the local economy, we will continue to support and lobby for any activities to reduce carbon emissions and improve air quality at the airport.



## C2 The Council's Own Operations

- C2.1** All our operational assets under our direct operational control and financial management will be accredited as carbon neutral by 2030. Other assets we own but not under our control will be decarbonised in line with prevailing legislation and, go even further with the availability of additional funding.
- C2.2** By 2030, our fleet will be powered by the cleanest available technology available within budget constraints and suitable for the operational requirement.
- C2.3** Ensure all corporate plans and strategies, particularly regarding estate management and property disposal evaluate and mitigate for climate impacts.
- C2.4** We will introduce a green staff travel plan that encourages and promotes less business travel and commuting and the increased use of low or zero carbon travel methods.
- C2.5** Undertake feasibility studies and act to install small scale low and zero carbon technologies in our own building stock.
- C2.6** The procurement of all our new equipment and services will be measured against the objectives of this strategic plan.
- C2.7** To ensure our street lighting assets are targeted for further carbon reductions, using new low energy and renewable technologies.

### Theme 2 Commentary

#### The council's own operations

We are committed to carbon neutral operations by 2030. This is a challenging target that will require new ways of working, innovative approaches to our operations and a carefully coordinated use of the funds available.

It will involve using our own building stock and land to host electricity generating technology, for example through the installation of solar panels. This cleaner energy generation will help us to reduce our carbon footprint, reduce reliance on electricity from fossil fuels and provide low cost supplies.

Green travel plans will be developed for both staff commuting and Hillingdon Council business transportation. These will be instrumental in encouraging new ways of working, placing more emphasis on technological solutions (such as virtual meetings) and reducing reliance on less sustainable forms of transportation.

#### Why not zero carbon?

Many residents responding to the consultation addressed the issue of 'zero carbon' or 'carbon neutral'.

In simple terms 'zero carbon' means not producing any carbon emissions whilst 'carbon neutral' means still emitting some carbon which is then offset through actions (such as tree planting).

Whilst zero carbon sounds more appealing the reality is that it would be unfeasible or unviable to achieve such a position for us. For example, the only way we could be zero carbon is for all vehicles to use zero carbon fuels (i.e. electricity sourced from renewable sources) and for all gas boilers to be replaced by alternative technology running on renewable energy. Facilities such as crematoriums, heated swimming pools and heating systems in our building stock are currently powered by natural



Credit: Libi Pedder

gas, a fossil fuel that produces carbon when burned. We need to establish which viable renewable options exist to replace heavy use of gas before we can commit to zero carbon.

In terms of vehicles, it is not yet foreseeable they could all be electricity powered by 2030. For example, there are only a few electric refuse collection vehicles available on the market and these are significantly more costly than Euro 6 diesel vehicles.

Similarly, we are also responsible for a range of buildings with gas boilers. Some of these are already highly efficient. Replacing these with zero carbon technology would be costly, but only provide a relatively small carbon saving. We need to understand the cost benefit of our expenditure so that we get the greatest carbon savings for the financial outlay. Ultimately this means having to accept that we may still be producing some carbon as we approach 2030. The key is to ensure that this is minimised so that offsetting becomes a last resort to the as part of the carbon neutral strategy.





## C3 Building Better Places

- C3.1** To use the development plan system to ensure all new major development will be zero carbon.
- C3.2** To consider new planning policies to ensure all non major new development is also zero carbon.
- C3.3** To ensure no new development is built in high and medium flood risk areas unless absolutely necessary and only then when flood risk management is properly understood and mitigated in accordance with council flood policy.
- C3.4** To ensure all new development is environmentally responsible, including protecting existing designations and sites of interest.
- C3.5** To ensure all new development contributes and supports the goal of sustainable transportation, such as the promotion of public transport, cycling or EV charging.
- C3.6** To ensure that wherever possible during development, existing trees are retained. Where they cannot be retained, new trees should be planted to facilitate carbon gain.
- C3.7** To identify and promote opportunities for the increased provision of allotments.

### Theme 3 Commentary

#### Building better places

Our planning policies stem from national and regional policies. The London Plan takes a firm stance on new development with regards to climate change.

Many of the policies outlined above are therefore already part of the planning framework which developers must respond to; however, they are reproduced here to ensure this strategic plan is comprehensive in identifying the principal issues concerning climate action.

Innovative approaches to new development mean it doesn't just have to be zero carbon but can assist with providing a net reduction.

#### Helping to avoid unwanted impacts

Another recurring theme in the consultation response related to the constant change to the built environment, in particular the loss of gardens and green space in residential properties.

An example raised repeatedly by residents related to the widespread paving over gardens to create parking spaces or driveways.

This type of activity can cause water to enter the drainage system more quickly, which can lead to an increase local flooding.

We want to use our leadership role to assist residents in making sustainable choices on their own properties. We will use the planning system to deliver sustainable solutions but where planning permission is not required, we want people to understand the implications for their choices and to seek out more suitable forms of solutions; for example, this could involve using certain types of permeable paving, collecting rainwater and allowing water to be stored in natural spaces.

Some of these solutions can have added benefits, for example the use of water butts can help recycle water to be reused in water the garden or increased areas of green space can promote and support wildlife.



## C4 Using and producing clean and green energy

- C4.1 To ensure and certify that the council secures energy supplies from low or clean forms of generation by 2030.
- C4.2 To investigate opportunities for large scale electricity generation from council owned land (e.g. solar farms).

### Theme 4 Commentary

#### Using and producing clean and green energy

The consultation showed support for us purchasing electrical power on a certified green tariff and, installing solar panels on our buildings. Buying 'green' power means that all our electrical power is allocated from renewable energy sources such as large-scale wind and solar farms which supply the national grid. Whilst this meant our carbon footprint reduced substantially after 2020, we also must plan for when this type of 'green' energy may not be as freely available.



To mitigate for this and continually reduce our carbon, we will begin switching to higher efficiency forms of electrical heating, such as air source heat pumps and where possible use solar panels to help supply the power they need. This will reduce or remove fossil fuel use in our buildings and improve the energy rating of the facility and take reliance away from the National Grid.

In addition, we will identify opportunities to invest in local power generation on larger scale within the borough. This investment in areas such as solar power can help supply local green energy or return clean electricity to the National Grid. This can also be a source of income.

#### Green energy purchasing

We have committed to purchasing all electrical energy from **certified** renewable sources.

This means 100 per cent of our electrical energy comes from sources such as wind, solar and hydroelectric power. Our existing contract will supply this energy until 2024.

In order to maintain a 100 per cent supply beyond 2024, part of the strategy will consider alternative options for renewable power purchasing to 2030 and beyond.

#### Carbon offsetting

The gas we use in our buildings is not considered to be a renewable source of energy.

To compensate for this, we must install low carbon or zero carbon heating sources in as many council owned buildings as possible. Where there is a residual element of fossil fuel leading to carbon emissions, we will mitigate that amount of carbon elsewhere. We will do this using either our own green space or renewable assets, or by supporting carbon offset elsewhere in the borough.

## C5 Waste management

- C5.1** Lead by example with a clear waste collection and sorting strategy for the Council's own operations with year on year targets for improvements.
- C5.2** Support the West London Waste Authority on waste reduction campaigns.
- C5.3** Provide an online resource for educational facilities to develop and implement waste reduction strategies. Monitor, record, and report on progress.
- C5.4** Work with businesses to reduce waste productivity and to provide more opportunities to customers to reduce and recycle their waste.
- C5.5** Encourage and support residents and communities to avoid, reduce, reuse, and recycle waste in that order.
- C5.6** Develop a community campaign to manage waste more sustainability and explore the potential to lead or support reuse and repair workshops for residents.
- C5.7** Promote the importance and value of growing food, either individually or through community groups.
- C5.8** To ensure all waste is managed sustainably and there is transparency and information on processes the council utilises and destination of waste.

### Theme 5 Commentary

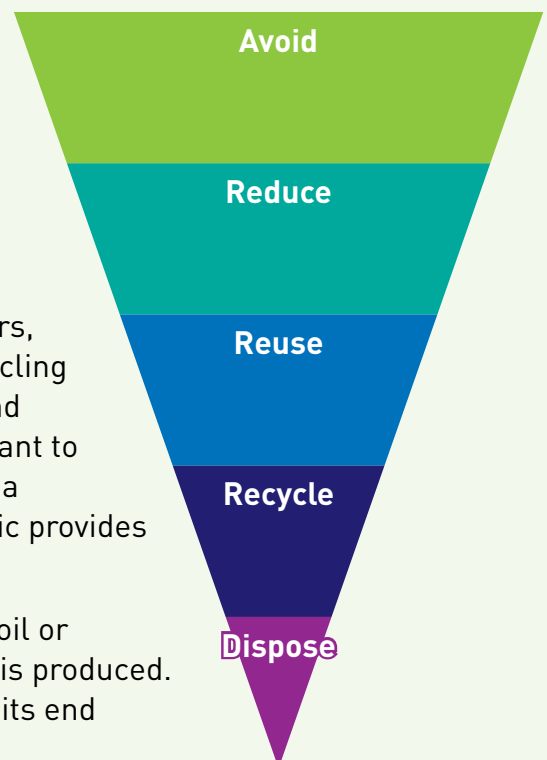
#### Reducing waste

The consultation responses were unanimous in the desire to reduce waste and for more assistance to be given to residents to enable that to happen. We have come a long way in recent years with the amount of waste recycled but more needs to be done. In particular, we want to see more attention given to the higher tiers of the hierarchy on the following page.

A lot of attention has been placed on recycling in recent years, but this is nearer the bottom than the top of hierarchy. Recycling has its own high carbon footprint from collection, sorting and through to processing. It is not to be ignored but it is important to recognise that recycling is simply a better way of managing a problem that already exists i.e. what to do with waste. Plastic provides a good example of the carbon lifecycle of waste.

Plastic is essentially a form of fossil fuel that is made from oil or natural gas; its carbon footprint starts immediately when it is produced. From here, plastic undergoes many other processes before its end journey, often over very long distances to the consumer.

From here the carbon footprint grows further. The plastic is discarded and then a new process, with a heavy carbon footprint, commences. Either the waste material is recycled or disposed of. These processes are carbon intensive, from bin collection through to sorting and then whether recovered for re-use, disposed of or incinerated. It is also necessary to note that not all plastic is managed appropriately; irresponsible treatment of plastic waste has now become a major threat to our natural ecosystems. Reducing its production in the first instance is vital.



Avoiding the production of waste in the first instance is the ideal position to be in. We want residents to become more conscious about the role waste production plays in decision making. We also want residents to understand how waste generation can be reduced, we want to work with businesses and major generators of waste in the borough to identify creative and innovative ways to reduce waste and raise awareness. Resources and awareness campaigns will be run to support these objectives.

We also want to investigate ways of allowing people to make their 'waste' products (i.e. furniture) available for others to make good use of. This approach to avoidance, reduction and reuse is the most sustainable approach to managing waste.

Consultation responses also showed a range of interests and areas where the council could do more. Notably residents expressed support for further work being done to support repair and mend workshops, reducing plastic waste and increasing composting. Additionally, growing food locally and local markets were also suggested. These suggestions also naturally link the community leadership objectives and there is clear scope to link the two themes in a beneficial way.

The objectives in this theme respond to these points positively and will be developed further through specific actions plans and engagement.





## C6 Climate change adaptation and mitigation

- C6.1** To develop a climate change adaptation and mitigation action plan.
- C6.2** To put in place a water efficiency strategy for all Council operations (such as green space watering, depot operations and corporate buildings) then monitor, record and report year on year savings.
- C6.3** To ensure the council's flood resilience and management work incorporates a changing climate and that the council's own land and property decisions consider the need to make space for water.
- C6.4** To run a campaign to get residents involved and sharing ideas with the council to find solutions for climate mitigation and adaptation in the community.
- C6.5** To investigate opportunities to integrate environmental improvements into existing buildings for example, living walls, green roofs, habitat walls, bird, and bat boxes.
- C6.6** To run an annual campaign to raise awareness of the impacts of reducing green spaces, paving over gardens and increasing hardstanding.

### Theme 6 Commentary

#### Climate adaptation and mitigation

The consultation analysis showed very high levels of interest in this area and it is clearly a topic that residents want us to lead on. There were high levels of support for the existing tree planting and open spaces work, with calls for further planting funded by us and led by communities. Other practical measures suggested included green walls on council buildings and rainwater harvesting. At a higher policy level, residents wanted the council to stop developments affecting floodplains and cut the grass less in public places, to encourage wildflower growth and increase biodiversity.



#### Carbon mitigation

In the context of this objective, mitigation means the enhancement of 'sinks' that store and process harmful carbon emissions.

Climate change problems are exacerbated through the production of greenhouse gases in combination with the destruction of their natural storage.

This means the loss of natural green space, tree canopies, grassed areas concreted over and the loss of garden space.

Mitigation means making up for those areas already lost. This might mean changing the way land is managed; for example, through less mowing of green space and allowing areas to become wildlife meadows. It also means planting more trees and vegetation.

Through increasing the amount of carbon sinks in this way, we can also achieve other objectives such as tackling air pollution with street trees, increasing wildlife through nectar rich wildflower meadows and reconnecting green corridors.

## Carbon adaptation

Carbon adaptation is about being prepared for problems already stored up in the 'pipeline'. The climate is changing, and the consequences are already being felt.

Action now is about ensuring they do not get worse, but it is also an unfortunate truth that impacts are already upon us. Hotter summers, colder winter spells and increased storm activity impact everyone but especially the most vulnerable.

We need to identify the most vulnerable and those at risk and ensure we put in place support and resources so that the impacts of climate change are managed appropriately.

We need to be innovative in how we manage flooding by creating space for water.

We need to ensure that residents have access to information about severe weather events, flooding, and heatwaves.

We all have a role to play and we want to put in place the resources and runs campaigns to raise awareness of the actions that can be taken to be better prepared.



## C7 Carbon offsetting

- C7.1 To develop an offset strategy to develop local solutions to any remaining residual carbon emissions from council operations.
- C7.2 To develop a tree and green space management strategy that supports and accounts for the offsetting objectives and commitments.
- C7.3 To promote carbon reduction practices and carbon offsetting opportunities for businesses and communities, linked to measures to tackle climate change in Hillingdon.
- C7.4 Understand and increase current carbon sequestration through increased planting and changes to green space management.
- C7.5 Increase the number of trees, particularly in urban areas to complement objectives to improve air quality and promote urban wildlife.
- C7.6 To exploit opportunities to increase carbon sequestration to maximise opportunities for biodiversity and flood risk management.

## Theme 7 Commentary

### Carbon offsetting

Residents responses to carbon offsetting were very focussed and informed, noting this is the final stage in a process to become carbon neutral. Importantly, it was reiterated that this must be used as a last resort and must be a transparent part of the process. We understand this and know offsetting becomes an option only once energy use has been reduced to a minimum, through energy saving measures and onsite renewable power. The next stage is to identify opportunities for larger scale renewable electricity generation which can feed back into the grid allowing carbon credits to be claimed against any carbon sourced energy still required (i.e. gas for boilers). Once that is achieved, we will look to tree planting as the final stage in the offsetting process.



### What is carbon offsetting?

Carbon offsetting is the reduction in carbon emissions made through a particular process to compensate the emissions produced elsewhere.

### Why do we need carbon offsetting?

We accept will not be able to save every kilogram of carbon which is why offsetting is so important. It is a way of compensating for what residual carbon emissions remain. We will establish the best methods to deploy carbon offsets to ensure transparency in reporting.

Offsetting sits alongside a robust reduction strategy; **we will use it as a last resort and only to be relied upon for those emissions that simply cannot be saved.**

### How do we offset carbon emissions?

Offsetting can come in a variety of forms. Large scale tree planting has historically been the most common form of offsetting. Alternatively, developers who cannot achieve zero carbon in a new development will offset the 'shortfall' through contributions to the council who will find savings on their behalf.



Our preference for offsetting is to develop a strategy in combination with the approach to mitigation (Climate Objective C6). We want to increase the tree canopy across the borough, allow more naturalisation of green spaces and in particular increase tree coverage in areas of poor air quality.

We are a major land holder in Hillingdon which is already one of the greenest boroughs. We have many parks and open spaces that provide the perfect opportunity for increased tree planting and biodiversity improvements.



## C8 Sustainable transportation

- C8.1 Produce a sustainable transportation strategy that reflects the objectives and commitments in this strategy.
- C8.2 Work with TFL to improve bus connectivity and services.
- C8.3 Identify opportunities for improved cycleways, cycle paths and public rights of way.
- C8.4 To promote cycling opportunities through campaigns and awareness events.
- C8.5 To secure improved cycling facilities across the borough.
- C8.6 To develop an electric vehicle charging action plan that will commit to increasing the availability of electric charging points across the borough.
- C8.7 To ensure the council's Air Quality Action Plan aligns with the objectives in this plan to ensure a safe transition to increased levels of cycling and walking in urban areas.

### Theme 8 Commentary

#### Sustainable transportation

In direct response to resident's comments, we have added a new theme of sustainable transport. The survey clearly told us that we need to do more to promote walking, cycling, public transport and electric vehicle infrastructure. Residents were keenly aware of the need for safe cycle routes and facilities to encourage a reduction in vehicle usage, which in turn would improve air quality by reducing other harmful emissions.

#### Climate change and air pollution

Climate change stems from greenhouse gas emissions that collectively combine to change the atmosphere. This is a global problem.

One of the predominant greenhouse gases is carbon dioxide and emissions from vehicular movements has long been identified as a significant contributor. To tackle this problem car manufacturers and governments placed an emphasis on vehicles with lower carbon dioxide emissions, this caused an increased supply and demand for diesel vehicles.

However, a 'side effect' of an increase in diesel vehicles to reduce carbon emissions was to generate significant local air quality problems through the creation of other emissions, notably nitrogen dioxide and fine polluting particles.

The impacts of local air pollution on health and wellbeing is a serious matter in its own right, with more and more evidence demonstrating harmful consequences for those repeatedly exposed to poor air quality. It is therefore important that global climate change and local air pollution are not treated as the same issue.

Notwithstanding that, mitigation for climate change can benefit local air quality and vice versa. For example, more street trees can increase the amount of carbon absorption but are now also recognised to help filter out local air pollutants as well. Similarly, no idling campaigns to ensure



people don't leave their engines running can have a significant impact on reducing local air pollutants whilst also have some benefit in reducing carbon emissions.

Electric vehicles will be a major benefit in tackling emissions that impact both local air quality and climate change; the latter more so when the national grid becomes increasingly dependent on renewable and clean sources of energy.

Our priority is to ensure that the action plans for improving air pollution are aligned with those in this plan. There are clear linkages across the range of strategies that needs to be considered further in an open and transparent manner.



## C9 Transparency, communication and reporting

- C9.1 To ensure transparency in the council's measuring of carbon footprints with clear details on methodologies as well as the outputs. All details to be available online.
- C9.2 To undertake an annual review and progress report on all action plans identified in this strategy.
- C9.3 In July 2024, undertake a review of this strategy which will be open to public consultation and engagement.
- C9.4 To develop and undertake a sustainability appraisal of each of the action plans to ensure they are aligned to the objectives of this plan.
- C9.5 Provide a climate action plan programme detailing target dates for the development of supporting action plans.

### Theme 9 Commentary

#### Transparency, communication and reporting

The strategic climate action plan sets a series of important internal and community goals that residents and business clearly want us to lead on. A key output from the consultation was that this leadership needs to be transparent with a clear two way dialogue between parties. We recognise that and the creation of this ninth theme is a response to that.

Information is key to future consultation and decision making and the council recognises the need to provide regular updates on progress through its own website and social media channels. We want to make our climate intentions clear, interact and adapt activities to achieve the best outcomes and report our progress in an open and transparent way.

Another key area of concern was about the transparency of reporting and monitoring targets and particularly how carbon offsetting will be used in achieving carbon neutral. We have therefore committed to ensuring the work that goes into capturing carbon emissions is overt and available for public review, and the ongoing work to reduce to carbon footprints is transparent and accessible to all.



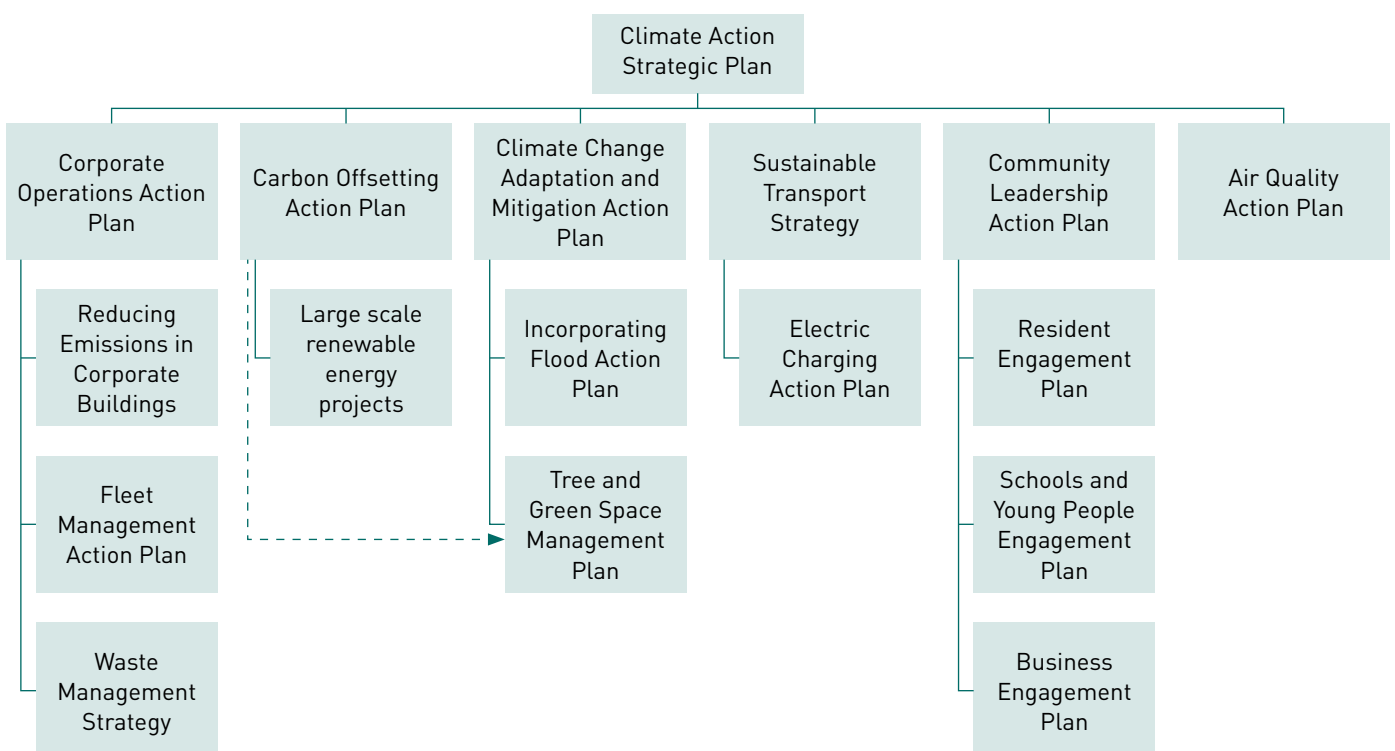
## 6. The Action Plans

This Strategic Plan is the just the start. We want all our services to adopt climate responsible operations and we have adopted an approach that puts the responsibility on the individual services to identify and deliver opportunities to respond to the climate emergency.

The Strategic Plan is therefore a catalyst for a series of other more detailed plans that will include actions and targets following the consultation on this document. An Action Plan tracker will collate all the actions into one place and will be available online for a transparent understanding of the ongoing actions.

In response to the consultation, there are more plans that now either 'sit' under this strategic plan or are more readily linked.

The table below outlines the action plans identified to date. This will be reviewed regularly and updated as necessary.



## 7. Glossary

### **Carbon emissions**

The physical release of carbon dioxide gas into the atmosphere.

### **Carbon footprint**

The amount of carbon dioxide released into the atmosphere as a result of the activities of a particular individual, organization, or community.

### **Carbon neutral**

Making or resulting in no net release of carbon dioxide into the atmosphere, especially as a result of carbon offsetting.

### **Carbon offsetting**

The action or process of compensating for carbon dioxide emissions arising from industrial or other human activity, by participating in schemes designed to make equivalent reductions of carbon dioxide in the atmosphere.

### **Carbon sequestration**

A natural or artificial process by which carbon dioxide is removed from the atmosphere and held in solid or liquid form.

### **Insulation**

Materials used to insulate something, in relation to buildings this means the act of insulating lofts, cavities and solid walls to save energy.

### **Clean energy**

Relating to or denoting energy that comes from renewable sources or other sources with a lower carbon impact.

### **Climate emergency**

A situation in which urgent action is required to reduce or halt climate change and avoid potentially irreversible environmental damage resulting from it.

### **CO<sub>2</sub>**

The abbreviation for carbon dioxide gas.

### **Fossil fuel**

A natural fuel such as coal or gas, formed in the geological past from the remains of living organisms.

### **Hybrid**

A vehicle with a petrol or diesel engine and an electric motor, each of which can propel it.

### **Hydro-electric power**

Relating to or denoting the generation of electricity using flowing water (typically from a reservoir held behind a dam or barrage) to drive a turbine which powers a generator.

### **LED**

Abbreviation: a light-emitting diode (a semiconductor diode which glows when a voltage is applied) relating to energy saving lighting.

### **London Plan**

The Mayor's strategic plan for London, setting out an economic, environmental, transport and social framework for development.

### **Low carbon**

Causing or resulting in only a relatively small net release of carbon dioxide into the atmosphere.

**Net zero**

A target of completely negating the amount of greenhouse gases produced by human activity, to be achieved by reducing emissions and implementing methods of absorbing carbon dioxide from the atmosphere.

**Procurement**

The action of obtaining or procuring something, relating to council purchasing.

**Renewable power**

Energy from a source that is not depleted when used, such as wind or solar power.

**Smart metering**

Gas, electricity, and water meters that automatically record consumption, usually every half hour.

**Solar power**

Power obtained by harnessing the energy of the sun's rays.

**TFL**

Abbreviation: Transport for London.

**UMS**

Abbreviation: Unmetered supply.

**West London Waste Authority**

West London Waste Authority (WLWA) is a statutory waste disposal authority (WDA) which was created in 1986. It works in partnership with six London Boroughs to achieve higher recycling rates, diversion from landfill and the overall reduction of waste. The six boroughs are Hillingdon, Brent, Ealing, Harrow, Hounslow and Richmond upon Thames.

**Wind power**

Power obtained by harnessing the energy of the wind.

**Zero carbon**

Causing or resulting in no net release of carbon dioxide into the atmosphere.







