



London Borough of Hillingdon

The Strategic Climate Action Plan

**Draft for Consultation
March 2021**

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% 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. Its 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 through real change through ambitious actions.

We want to encourage, educate, and empower individuals to follow our lead so that we can be proud to be playing our part in responding to this emergency.

I welcome and sincerely encourage your involvement in these shared endeavours.

Councillor Eddie Lavery

Cabinet Member for Environment, Housing and Regeneration

The Vision

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

This Strategic Plan will set out the Actions to realising this Vision focussing on three Corporate Commitments:

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 or creating the infrastructure for charging electric vehicles and encouraging each school to have its own carbon reduction plans.

Corporate Climate Commitment 2: “To become ‘Carbon-Neutral’ by 2030.”

We will invest in energy saving measures across the property portfolio. This applies to public access buildings and sites where the Council pays for the energy supplies, our vehicles and highway assets like streetlighting and car parks. We will reduce our demand on fossil fuel to the minimum and use carbon offsetting to counteract our remaining emissions.

Corporate Climate Commitment 3: “To achieve 100% clean energy across the Council’s services by 2030.”

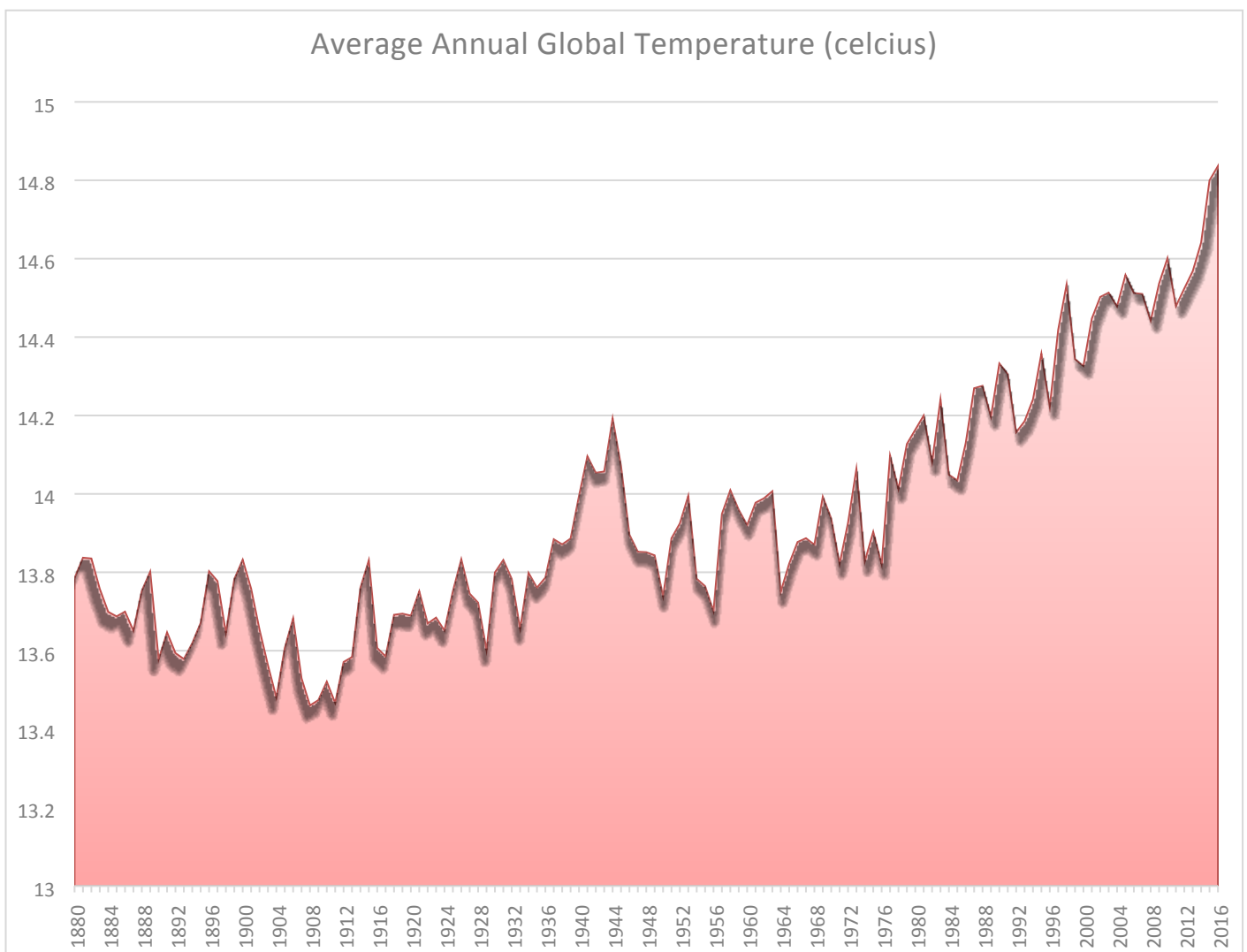
From 2020 all the electrical power to Council assets was sourced from certified renewable sources. The energy was secured through a London wide contract which runs until 2024. This means we can be assured that our electrical power component of our service is currently zero-carbon.

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

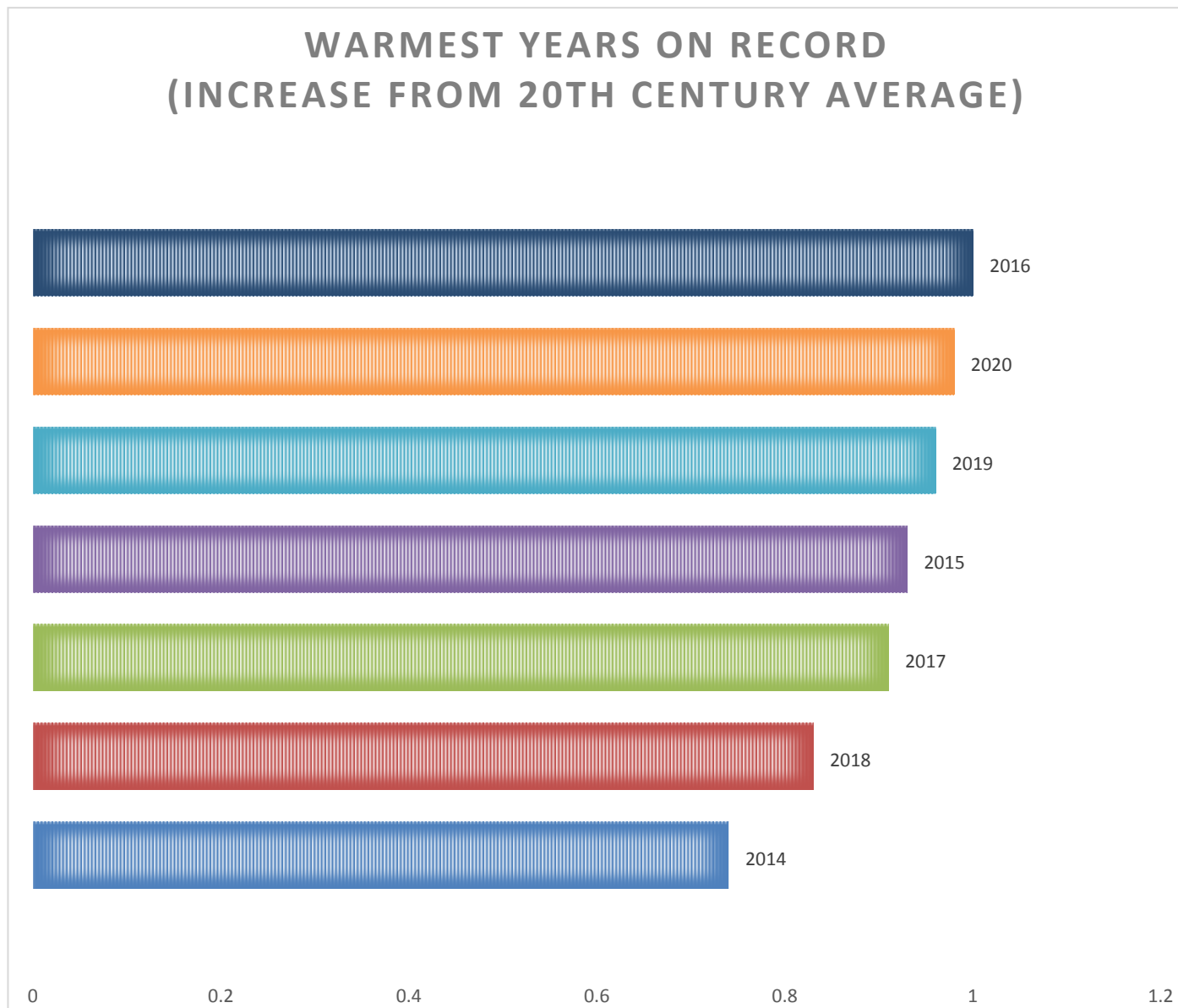
1. Introduction

1.1. What is Climate Change?

- 1.1.1. 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.
- 1.1.2. 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.



- 1.1.3. 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.



1.2. Why does climate change matter?

- 1.2.1. 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.
- 1.2.2. 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

- 1.2.3. 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.
- 1.2.4. 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 2%. 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

- 1.2.5. 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 Hillington 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.

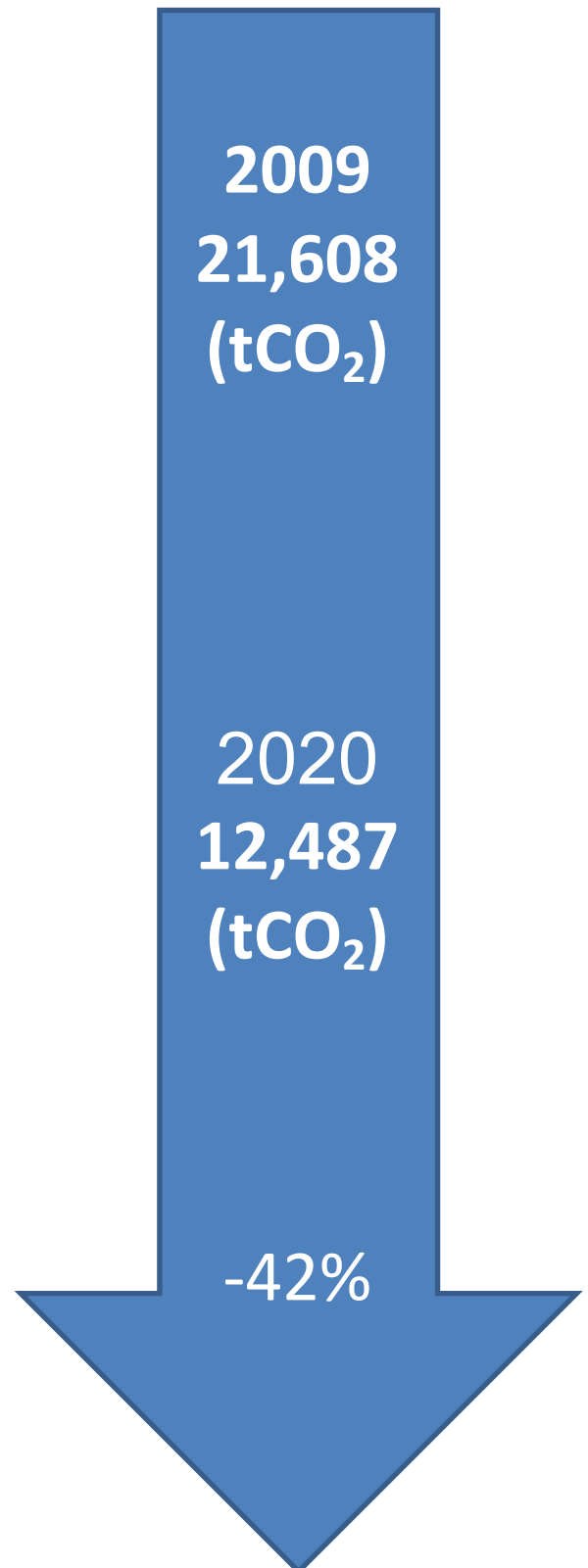
In 2009, emissions across our operations stood at over 21.6 thousand tonnes of CO₂.

By 2020 we had reduced this by 42% to just under 12.5 thousand tonnes of CO₂.

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 pressurized budgets.

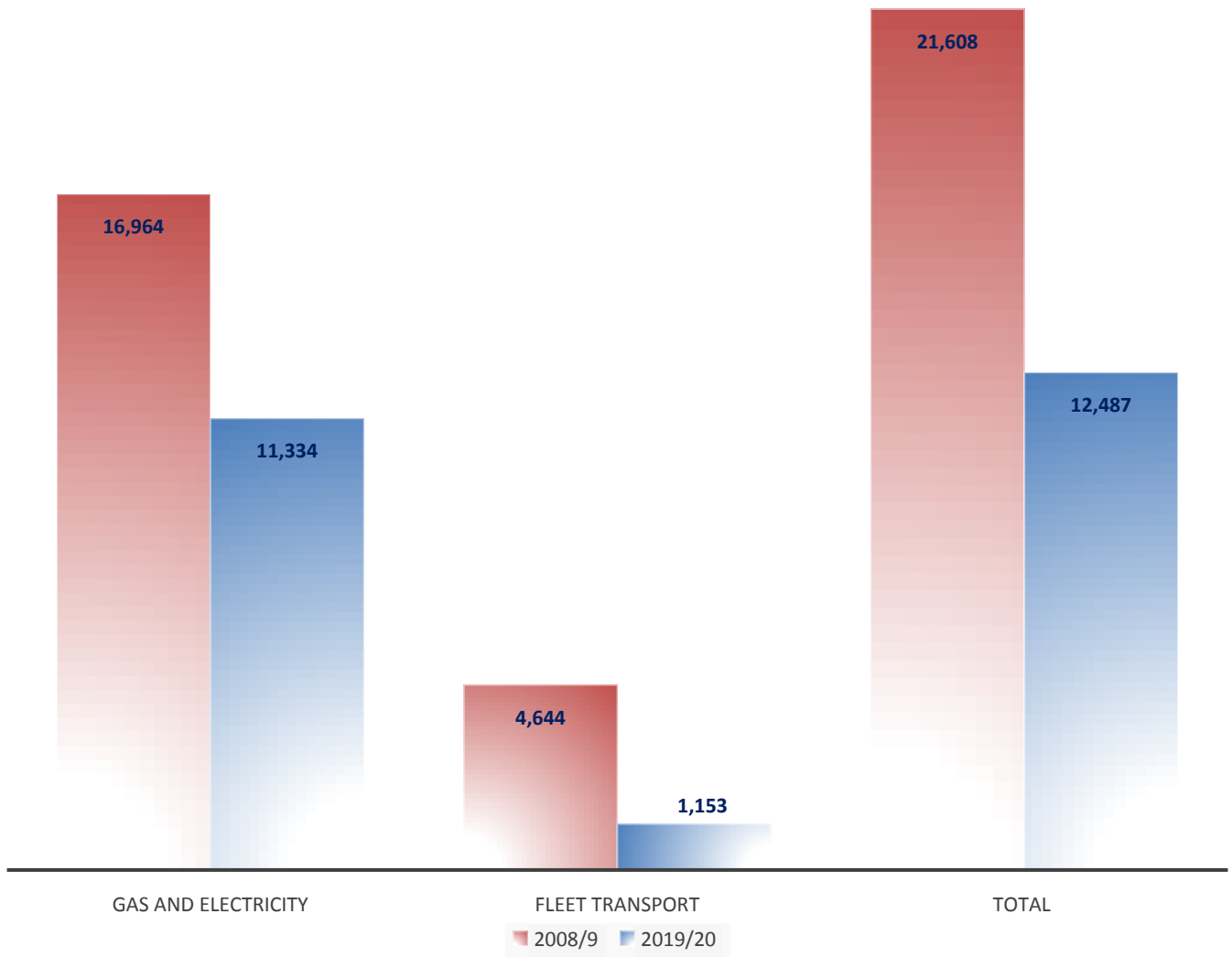
We are well set and well positioned to build on the success already made. Our belief is we must embed climate change in existing services to make more meaningful changes in an efficient and effective manner.

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



Business Area (Tonnes CO ₂)	2008/9	2019/20	Change	Percentage
Gas and Electricity	16,964	11,334	-5,630	-33%
Fleet Transport	4,644	1,153	-3,491	-75%
Total	21,608	12,487	-9,121	-42%

Emissions reductions from 2009 to 2020 (tCO₂)



How we have reduced our own Carbon Emissions

Between 2010 and 2020, the Council has 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 5000 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
5 hybrid and 3 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. We also have large scale tree planting ambitions to increase the tree canopy coverage across the borough. This is not just a long-term aspiration, it is already happening, as illustrated by our recent concerted tree planting campaign.

601 - Standard tree planting in highways and parks

1500 - Whips - New approach to highway tree belts
- Long Lane (Trees for Cities)

100 - Sukura Cherry Tree Project

3000 - Whips - Colham Green (Trees for Cities)

37 - Standards - Colham Green (Trees for Cities)

12 Fruit tree orchard - Colham Green (Trees for Cities)

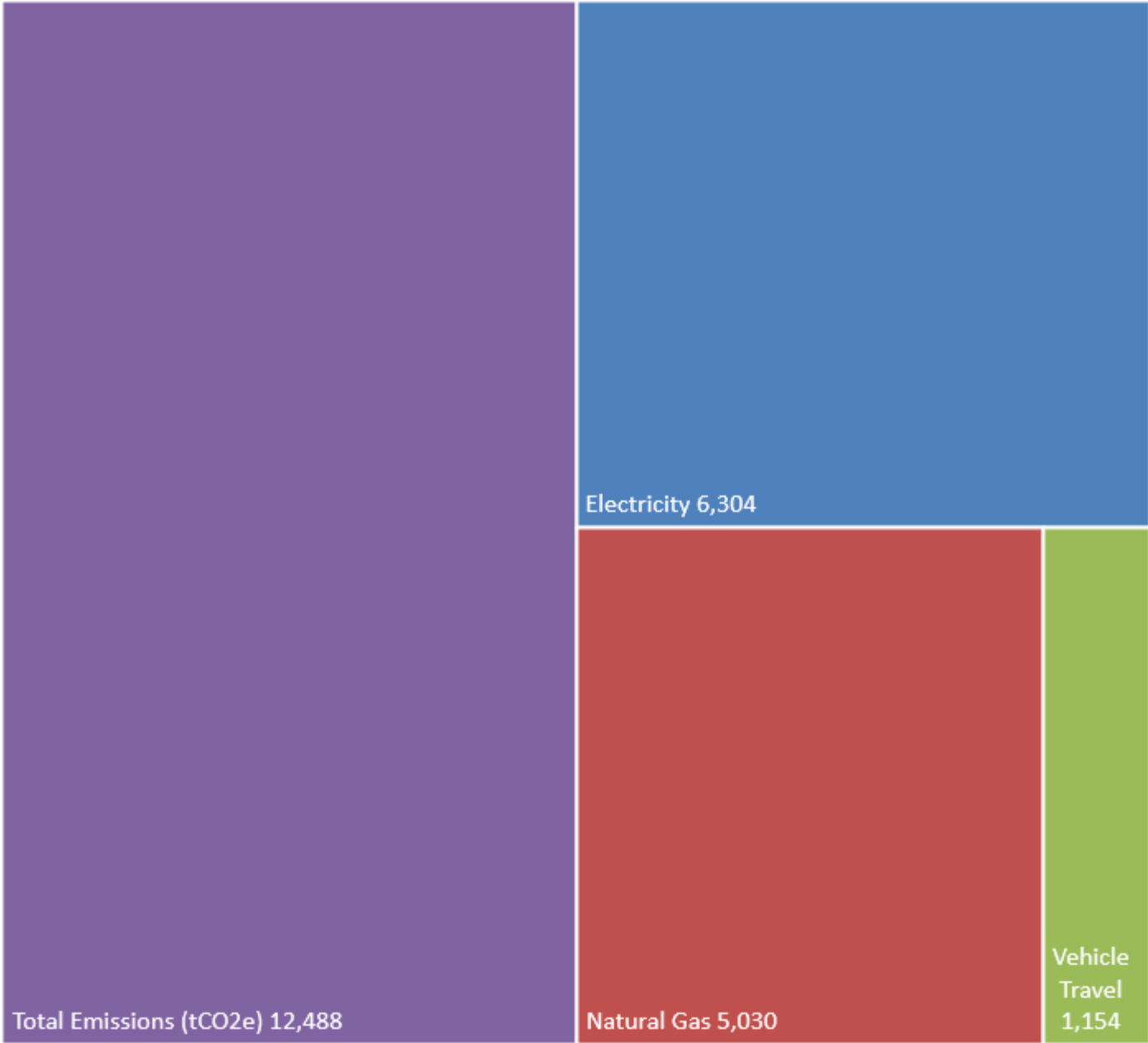
1000 trees provided for our residents to plant

A total 6250 trees planted with only 215 removed for various reasons (e.g. dead or hazardous)

3. The Starting Position

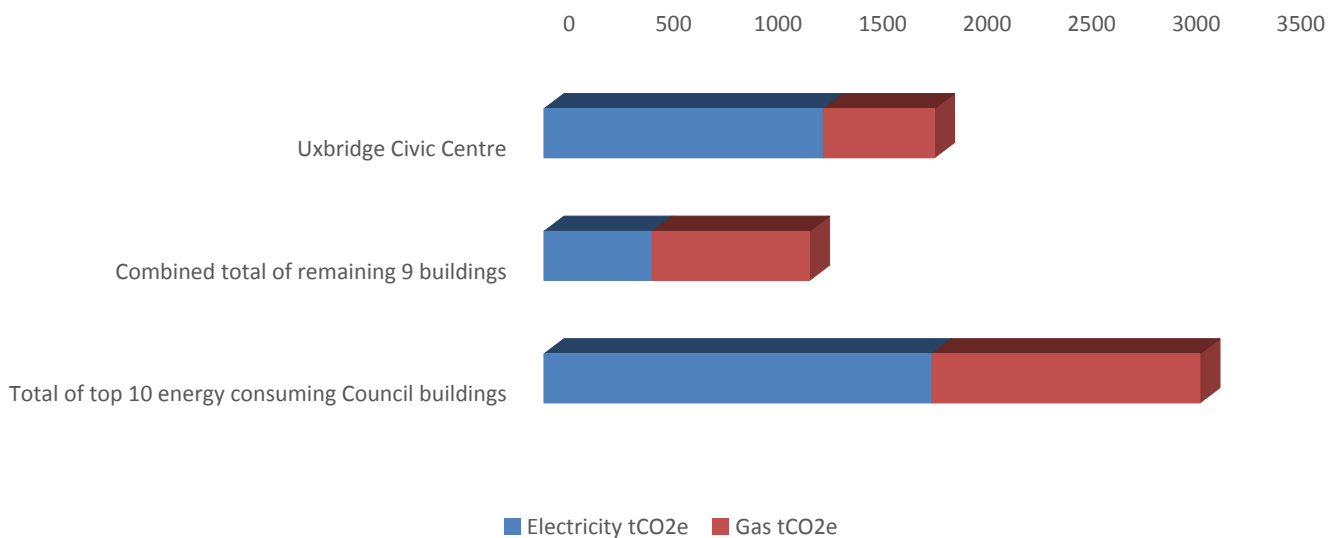
The last decade of performance on carbon emissions was extremely positive. However, it also means that finding more savings becomes more difficult; there is still a long way to go for Council operations to become to carbon neutral.

London Borough of Hillingdon
Carbon Emissions (tCO₂e) April 2019 to March 2020

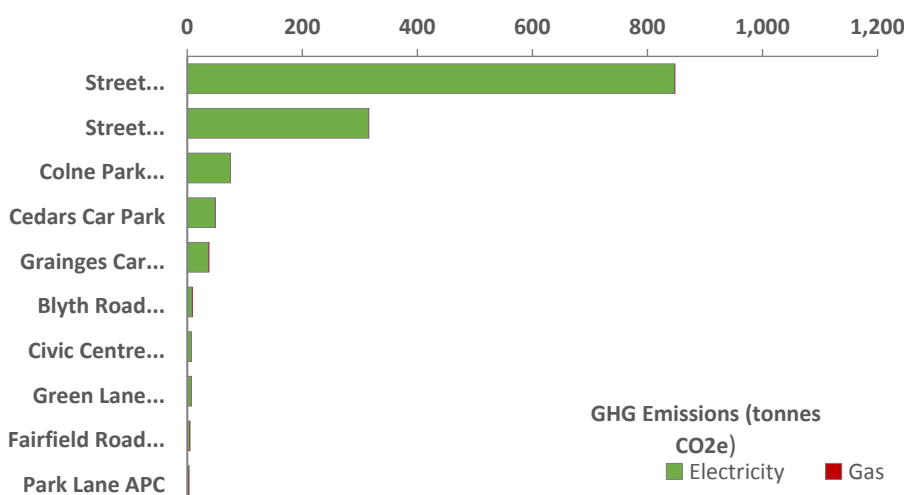


There are several challenges to achieving carbon neutrality across our operations. The chart below shows the highest 'emitting' buildings. Our Civic Centre sits clearly at the top of the operational building stock. This is an ageing building built in the 1970s. This means that it was not designed to accommodate the kind of modern services of office working, for example 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 restricting the types of renovations and changes that could be accommodated on other similar ageing buildings.

Total carbon emissions (tCO₂e) associated with the top 10 energy consuming Council buildings



Top 10 (Non-Building) Annual GHG Emissions

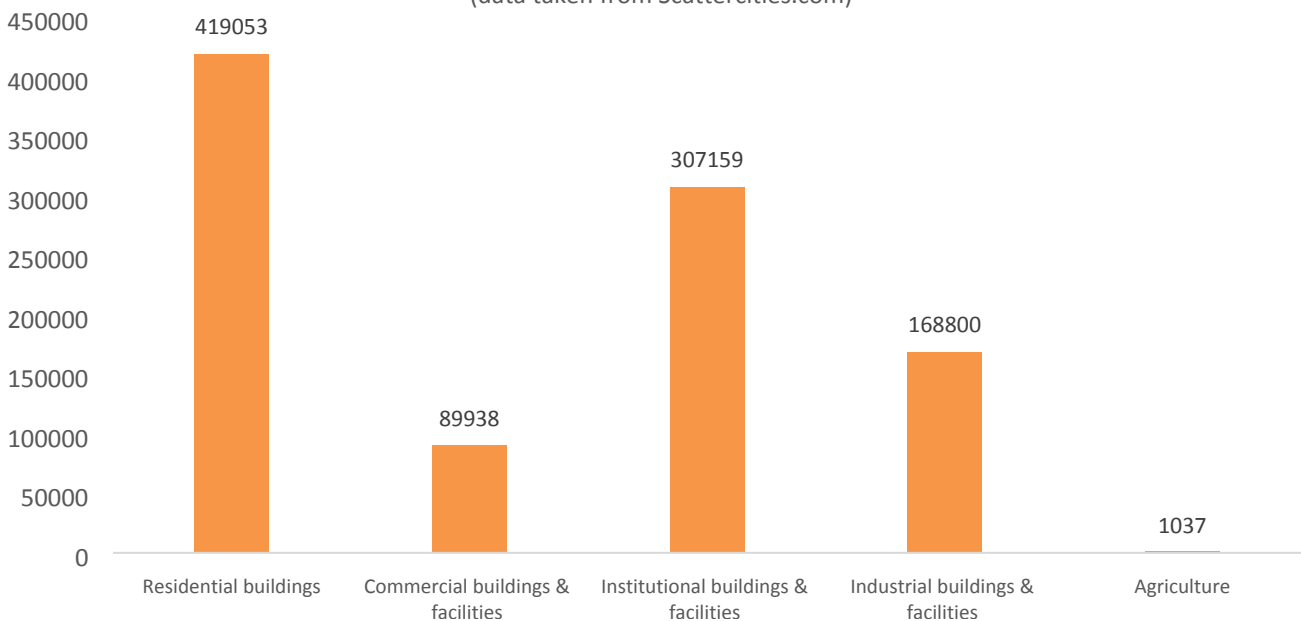


Streetlighting also represents a significant hurdle as it makes up the majority of the 'non-building' emissions.

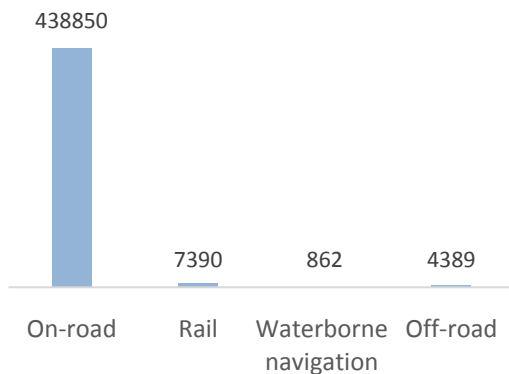
For both the Civic Centre and streetlighting, innovative approaches will be required to find solutions to achieving the necessary emissions reductions.

Our carbon neutral target relates to our own operations where we have control over emissions. However, that is not to ignore the wider emissions across Hillingdon. The Council intends to take a leadership, influencing, promoting, and supporting role to encourage those sectors outside of our control to follow our lead. This will be difficult as many of the sectors identified below will require action at a national level. We cannot force action on those outside of our control but we can use our unique position to encourage others to change their ways.

Emissions (tCO₂e) across Hillingdon from the built environment
(data taken from Scattercities.com)



Emissions (tCO₂e) 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 account for our 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, the Council does 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

7 Key themes have been identified from which the Council's response to Climate Emergency will be developed

Objective	Theme
C1	Community Leadership
C2	The Council's Own Operations
C3	Building better places
C4	Using Clean and Green Energy
C5	Waste Management
C6	Climate Change Adaptation and Mitigation
C7	Carbon Offsetting

5. The Actions

C1	Community Leadership
C1.1	Promote the concept of zero carbon communities.
C1.2	By the end of 2021 we will have a dedicated online learning resource to provide detailed advice and guidance on how to lower a person's carbon footprint.
C1.3	To use our unique access to communities through, for example residents associations, to develop community forums and groups to support and promote climate actions.
C1.4	Support the access of funding for the 'greening' 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 to collaboratively work towards achieving climate change objectives.
C1.6	We will prioritise fuel poor households for 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.
C1.8	During 2021 for all non-Council managed schools and educational facilities to be contacted and encouraged to put their own Climate Action Plans in place by 2023.
C1.9	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.

C2	The Council's Own Operations
C2.1	Council operational building stock to be accredited as carbon neutral by 2030.
C2.2	By 2030 significant progress will be made to ensuring the Council's fleet will be powered by the cleanest available technology.
C2.3	Ensure all corporate decisions, particularly regarding estate management and property disposal consider the impact of the climate emergency.
C2.4	Introduce a green Council 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	To investigate opportunities for energy generation from renewable sources on Council operational building stock and on land it owns.
C2.6	The procurement of all new Council equipment and services will be measured against the objectives of this strategic plan.

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.

We also commit to a procurement strategy that will aim to ensure our suppliers' carbon emissions are more clearly understood and are factored into Council decision-making on the purchasing of supplies and services.

We will also look to use 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 Council business transportation. These will be instrumental in encouraging new ways of working, placing more emphasis on technological solutions (i.e. virtual meetings) and reducing reliance on less sustainable forms of transportation.

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 where flood risk management is properly understood and mitigated.
C3.4	To ensure all new development contributes to responsible environmental performance.
C3.5	To ensure all new development contributes to the sustainable management of transportation.
C3.6	To ensure that any trees lost are compensated for by offsite replanting.

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.



C4

Using 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.

Green Energy Purchasing

We have committed to purchasing all electrical energy from certified renewable sources. This means 100% of our electrical energy comes from sources such as wind, solar and hydroelectric power. Our existing contract will supply this energy until 2024. To maintain a 100% 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 purchasing a carbon offset elsewhere.



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.
C5.5	Encourage and support residents and communities to reduce, reuse and recycle waste.
C5.6	Develop a community campaign to manage waste more sustainability.
C5.7	Promote the importance and value of growing food, either individually or through community groups.

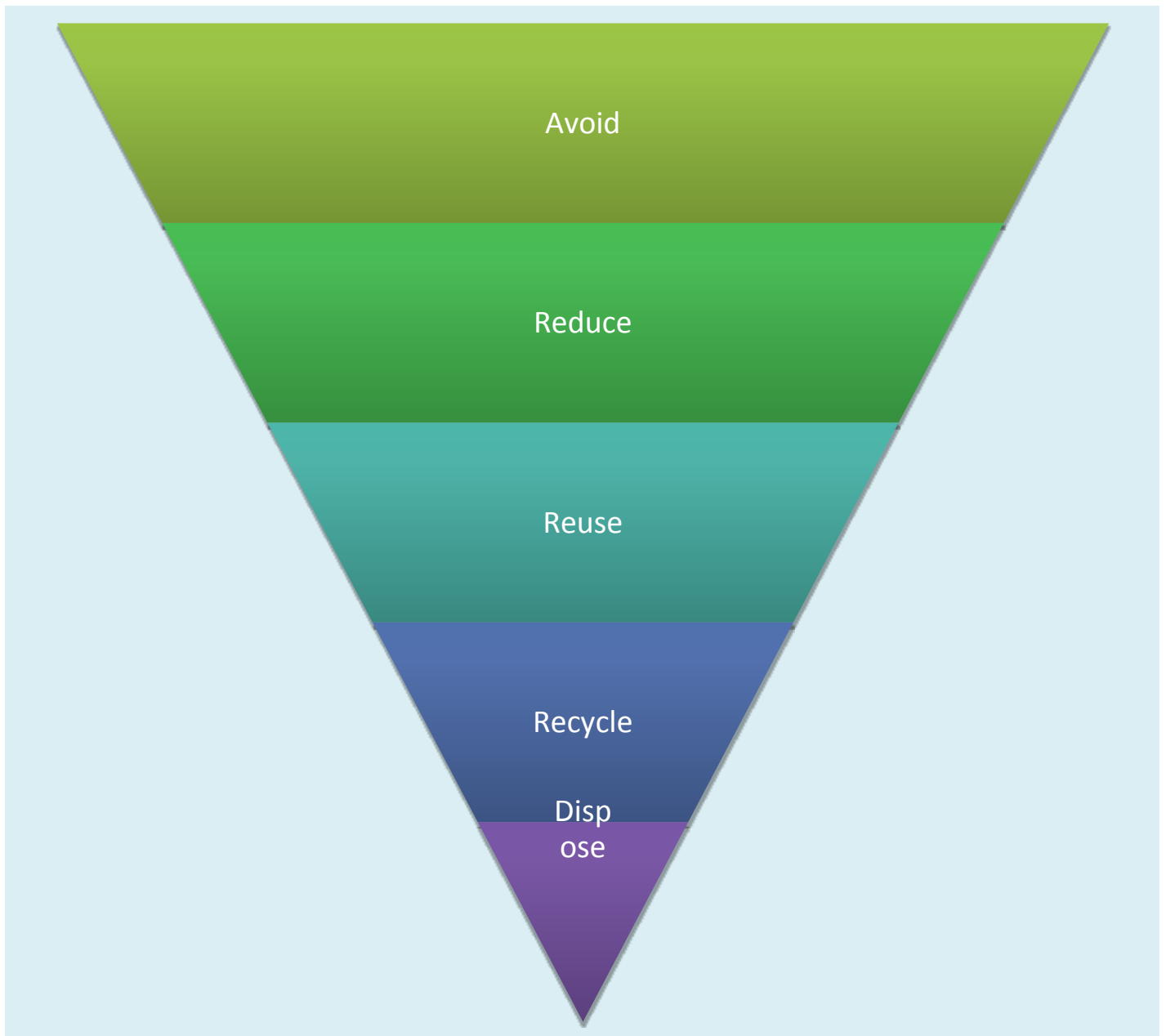
Waste management may only represent a small portion of our carbon footprint, but this does not tell the whole story.

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 as 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.



The above waste hierarchy for domestic and commercial production is an important guide to how waste should be managed. A lot of attention has been placed on recycling in recent years, but this falls somewhat down the hierarchy. Recycling has its own high carbon footprint from collection, sorting and through to processing. While we aim for high recycling rates, 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.

We want to see more attention given to the higher tiers of the hierarchy. We must first encourage the avoidance of waste wherever possible. When we determine the need for a service or product, we must consider the waste generation and life cycle of what is being proposed. This is because when we factor in the waste generated, it may be worth avoiding the product or service altogether.

Reducing waste is also extremely important and forms part of a more sustainable approach for decision making. A service or product could be preferable if there is a commitment from the supplier to reduce the amount of waste or emissions involved. We see waste as a wide ranging issue, with many forms. It can be as simple as packaging, but also as a by-product of creating the things we need. For example, the emissions associated with the manufacturing of a product.

C6

Climate Change Adaptation and Mitigation

C6.1

To put in place a water efficiency strategy for all Council operations (i.e. green space management), then monitor, record and report year on year savings.

C6.2

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.

C6.3

To run a campaign to raise awareness for the need to be better prepared for a changing climate.

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 natural storage of them.

In terms of the latter, it means the loss of natural green space, tree canopies, grassed areas concreted over and the loss of garden space.

We will reverse this trend through its response to the climate emergency.

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.

C7

Carbon Offsetting

- | | |
|------|--|
| C7.1 | To develop a Carbon Offsetting strategy for the Council's own operations to manage any residual carbon emissions. |
| C7.2 | To promote carbon offsetting opportunities for businesses and communities as part of a complete package of measures to tackle climate change and not as a sole solution. |
| C7.3 | Increase carbon sequestration through increased planting and changes to green space management. In particular to plant more street trees in urban areas to improve air quality, tackle flood risk and improve the quality of life. |

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 we 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.

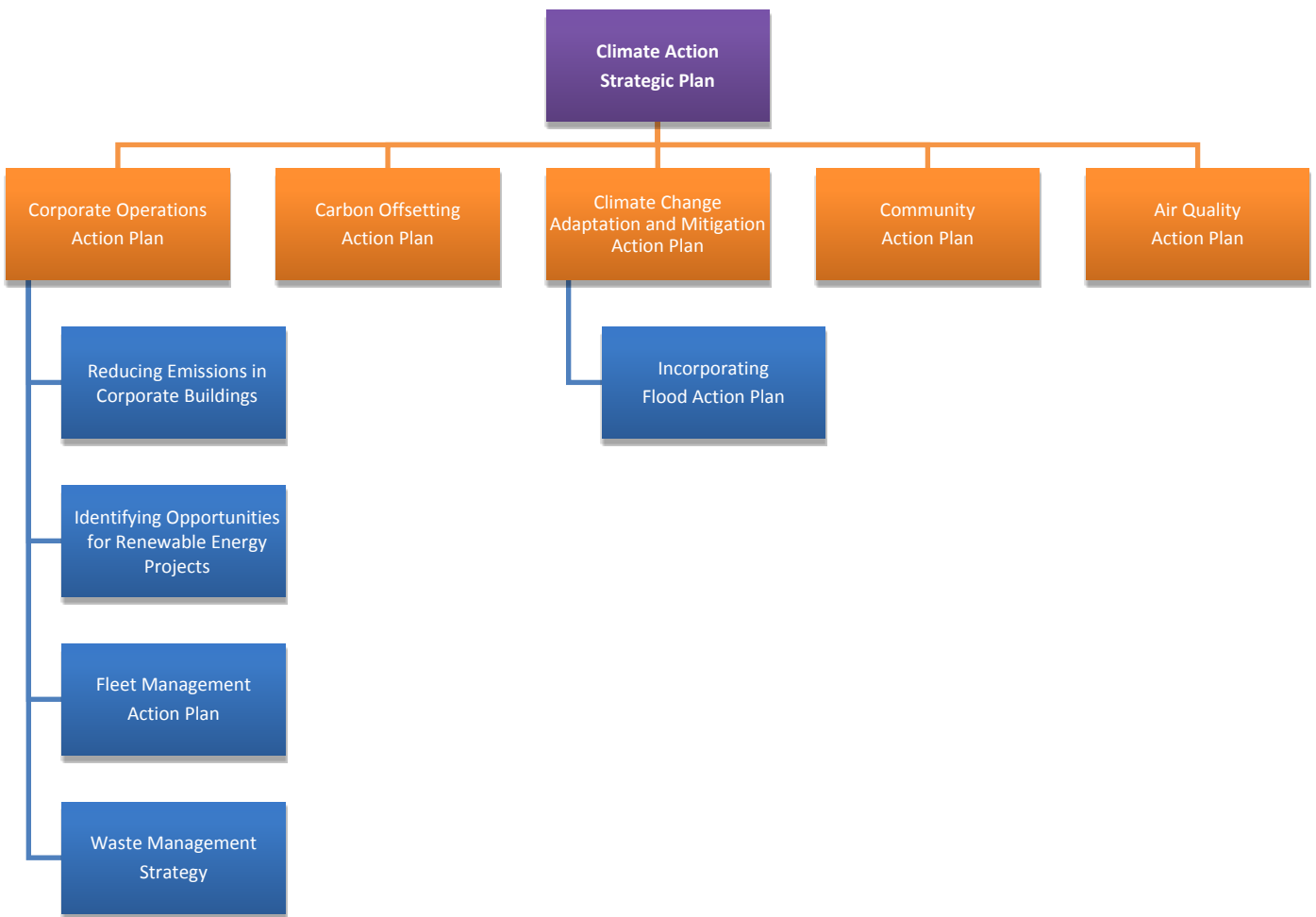
Our preference for offsetting is to develop a strategy in combination with the approach to mitigation (Climate Objective C6). We want to increase the tree canopy across the borough, allow more naturalisation of green spaces and in particular increase tree coverage in areas of poor air quality.

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.

6. How this Plan works

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.



7. Monitoring and Reporting

We commit to providing an annual report on the actions within this Strategic Plan along with the supporting specific action plans.

These annual reports will be accompanied by a review of the plan which we will invite stakeholders, communities, residents and businesses to comment on through a period of consultation.

Responding to the climate emergency requires a collaborative effort from everyone. It is therefore important that there is full engagement. It is also important to ensure that everyone has the opportunity to present their ideas and their experiences to ensure that the Council is progressing in the right direction.

