



Broxtowe  
Borough  
COUNCIL

# Climate Change and Green Futures Strategy

2023 - 2027







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# Foreword

Climate change is a global problem. Extreme weather events arising from the warming of the earth pose a real risk to property, health, wildlife, habitats and food production. Nations have seen temperatures reach levels never before recorded and in 2022 the UK saw a 50°C temperature swing, from the hottest day ever recorded in July to some of coldest since 2010 in December (Source: McCarthy M, Nikos C and Stott P: Met Office: A review of the UK's climate in 2022).

Climate change affects us all, but we also have the power to do something about this and the UK is well placed to set an example to the rest of the world. Broxtowe Borough Council wants to be a role model and trend setter for the country, bringing everyone on its journey to carbon neutrality and beyond.

The purpose of this strategy is to highlight key areas where stakeholders can work together to drive this positive change, as well as setting out some important context in policy and emission data.

Since 2009, the Council has been measuring its carbon footprint and implementing measures to reduce carbon emissions. Since the initial assessment in 2009 and re-assessment in 2020, the Council achieved a 45% reduction in carbon emissions and supported numerous climate friendly policies and projects. Despite all of these past efforts, an acceleration of action is needed to mitigate the worst impacts of climate change.

In 2019, the Council declared a Climate Emergency and made an ambitious commitment to become carbon neutral by 2027. The Climate

Change Strategy and the Climate Change and Green Futures Programme followed, providing a framework and strategic direction to achieve this ambition.

Meeting this commitment will be a journey for us all and changes will need to be made to the way that we all live our lives. The global cost of living crisis, supported by spiralling and increasing costs of traditional fossil fuel means we have to look to cleaner more sustainable alternatives.

As we move forward, we will also need to adapt to and increase our climate resilience. Short term investment is necessary if appropriate infrastructure is to be created so that the worst impacts of flooding and extreme weather events can be mitigated.

This revised Climate Change Strategy builds on the foundations of the original and is structured around ten programme themes. The strategy will continue to be dynamic and evolutionary and will be reviewed annually to ensure emerging strategies are captured, themes, project strands, and actions remain up to date, and performance is managed.

We want to invite you to help shape the future. We will therefore consult with our residents and stakeholders on this strategy and will invite views, ideas and comments that can help shape future policies, helping support us all on this journey together.

# Executive Summary

Theme	Strategic Importance to Climate Change
Climate Strategy	The existence of a Climate Strategy is fundamental in addressing climate change. The measures within the strategy provide the direction of travel towards achieving carbon neutrality by 2027 and net zero beyond that.  The Climate Change Strategy is a live document and will be reviewed regularly to ensure it remains current.
Transport and Travel	The Council will reduce its emissions by operating sustainable fleet management systems, through a combination of electrification, consideration of alternative fuels, and operational and driving efficiencies. The Council will encourage residents and businesses to make more sustainable transport choices.
Energy and Water	Reduction in energy and water consumption is a core objective for the Council.  The Council will actively seek ways to ensure that it's assets are as energy and water efficient as possible. It will look to decarbonise heating systems where appropriate.  Residents and businesses will be encouraged and signposted to grants providing energy efficiency measures and will be encouraged to install renewable generation technology where appropriate.

Theme	Strategic Importance to Climate Change
Built Environment	For the Council's own new build assets, measures to address climate change will be reflected in the design, materials and heating systems. For existing assets, the Council will look to understand and implement measures to improve energy efficiency, increase the use of renewable energy and decarbonise heating systems where appropriate.  The Council will sign post, encourage and engage with residents on appropriate retrofit and energy efficient measures for their homes.
Core Strategy and Planning	Through the planning process, the Council will ensure that more ambitious and meaningful planning policies can be introduced through the Local Plan to encourage or enforce more energy efficient developments. New developments are being approved and constructed all the time, this is therefore an ideal opportunity to improve the efficiency credentials of the Borough's built environment.

Theme	Strategic Importance to Climate Change
Recycling and Resources	Natural capital is one of our most valuable assets. The Climate Change Strategy sets out how the Council will preserve resources by minimising waste, promoting resource efficiency and moving towards a circular economy. At the same time, the Council will minimise the damage caused to the natural environment by reducing and managing waste appropriately, and in accordance with the waste hierarchy.
Natural Environment	The natural environment acts as a sink to capture and store carbon emitted naturally, and so plays a fundamental part in the mitigation and reduction of carbon emissions.  The Council will strive to ensure the natural environment is managed appropriately to increase biodiversity, and ensure that healthy ecosystems thrive throughout the Borough and will consider options in which best to address the current ecological crisis.

Theme	Strategic Importance to Climate Change
Communities	The Council cannot tackle climate change in isolation. Most of the carbon emissions in the Borough relate to operations outside the direct control of the Council.  It is therefore important that the Council engage and encourage stakeholders to influence positive behaviour change with regards reducing carbon emissions.
Business and Supply Chain	The Council will work with businesses to support their efforts to become more sustainable, as well as focus on its own supply chain to make environmental considerations a key part of procurement.
Communications	Communications and engagement is an overarching theme which is key to the delivery of the overall Climate Change Strategy.  Well-considered and designed communication activities are key components for stakeholder engagement. This programme theme will support the various project strands in terms of raising the profile and awareness of the climate agenda, promoting best practice and driving positive behaviour.

Table 1 – Executive summary



## Introduction

In July 2019, Broxtowe Borough Council declared a 'Climate Emergency' and pledged to become carbon neutral by 2027. Following this, in 2020 the Council's first Climate Change Strategy was produced and the Climate Change and Green Futures delivery programme was developed. This programme of activity mapped out the next phase of the journey to reduce the Council's carbon footprint. It also detailed how the Council would influence, encourage and assist key stakeholders to strive towards the same goal.



Image 1: Flooding in Kimberley - October 2022

## Why do we need a Climate Change strategy?

The world is getting warmer! On the 19 July 2022, the UK recorded its hottest ever temperature of 40.3°C with the summer of 2022 being the fourth hottest on record.

A Climate Change Strategy is necessary to identify, manage and mitigate the worst impacts of Climate Change.

## How is climate change affecting Broxtowe?

Over recent years the Borough of Broxtowe has experienced damage and disruption due to extreme weather events. This includes:

- Flooding causing damage to properties and road infrastructure
- Heatwaves damaging road surfaces
- Heatwaves disrupting bin collections

(Source: LCLIPA summary of the Local Climate Impacts Profile for Nottinghamshire (2011)).

## Climate Change Drivers

The table below sets out the key drivers for addressing climate change.

Driver	Summary
Climate Change Act 2008	Commitment to be Net Zero by 2050. 78% reduction on Carbon Emissions by 2035.
Paris Agreement 2015	Legally binding international treaty on climate change. Limit global warming to well below 2°C, preferably to 1.5°C, compared to pre-industrial levels.
Environment Act 2021	Aims to improve air and water quality, reduce waste/increase recycling, improve biodiversity (referred to as Bio Net Gain or BNG) and tackle waste crime.
Ten point plan for a Green Industrial revolution - 2020	Support Green jobs and accelerate the path to net zero.
Net Zero Strategy: Build Back Greener – October 2021	Sets out policies and proposals for decarbonising all sectors of the UK economy to meet the net zero target by 2050.
Taking charge: the electric vehicle infrastructure strategy – March 2022	Vision and action plan for the rollout of electric vehicle charging infrastructure in the UK.
D2N2 Energy Strategy 2019 - 2030	Targets and actions that align with the national Clean Growth objectives. By 2030, D2N2 aims to make Derbyshire and Nottinghamshire a pioneer in green growth.
Nottinghamshire County Council - Carbon Reduction Plan	The plan provides a roadmap of how Nottinghamshire County Council will reduce its carbon emissions over the next seven years and become carbon neutral by 2030.



# Climate Change Strategy



Climate change affects us all, but we also have the power to do something about this

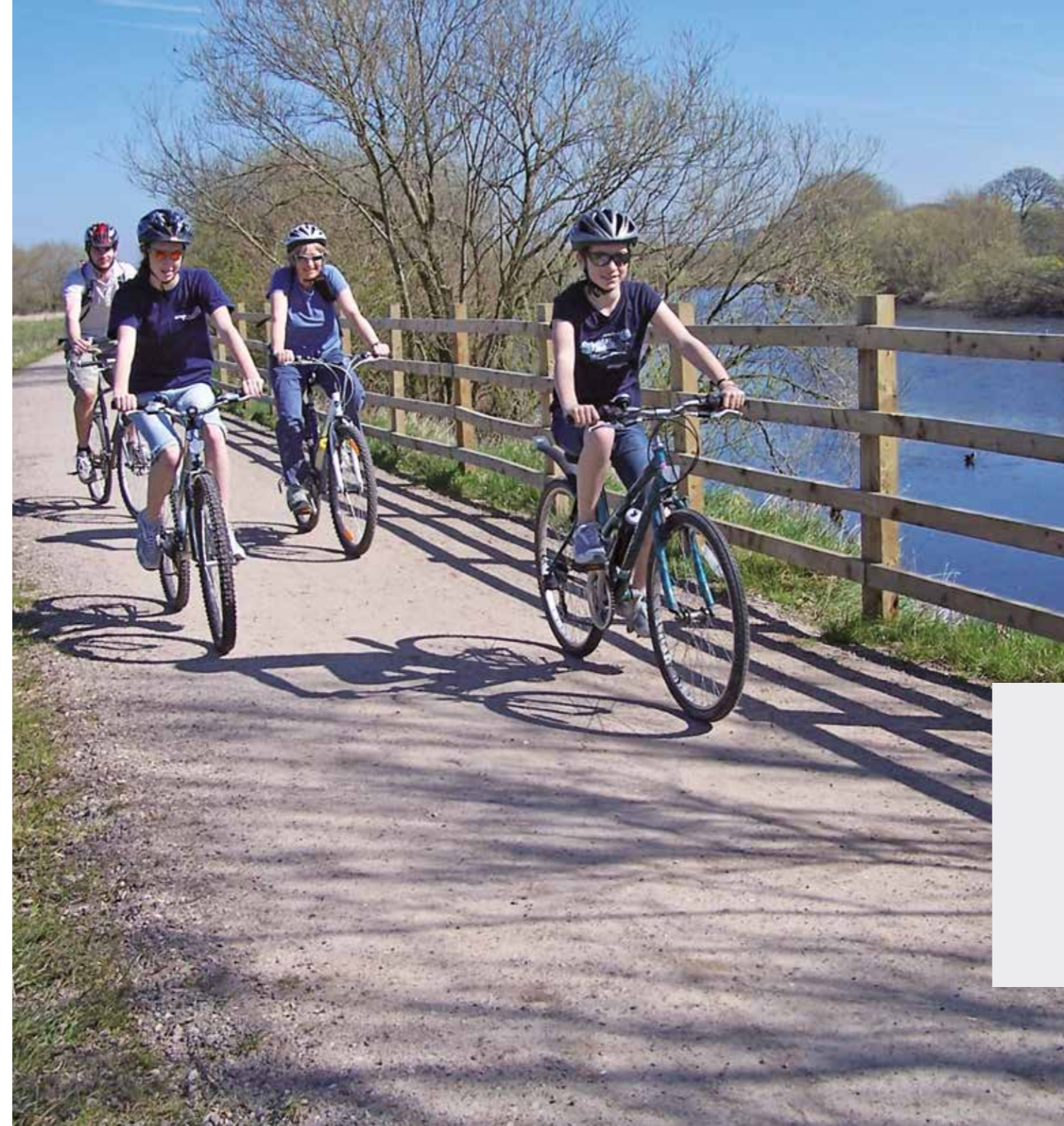
Clr Helen Skinner,  
Cabinet Member for Environment and Climate Change





Driver	Summary
Broxtowe Borough Council's Carbon Management Plan- 2009	The Council's first Carbon Management Plan developed in 2009. Achieved a 45% reduction in carbon emissions when baselining was undertaken against 2018/19 data.
Broxtowe Borough Council Corporate Plan – 2020-2024	Corporate vision: 'A greener, safer, healthier Borough, where everyone prospers'.
Broxtowe Borough Council Environment Business Plan	Environment Objectives: - Develop plans to reduce the Council's carbon emissions to net zero and start implementing them. - Invest in Council's parks and open spaces. - Increase recycling and composting.
Broxtowe Borough Council - 2019	Climate Emergency Declaration.
Broxtowe Borough Council - 2019	Commitment to become carbon neutral by 2027 for the Council's own operations (Scope 1 and 2, and some elements of 3).
Broxtowe Borough Council Climate Change and Green Futures programme - 2020	Launched in February 2020, the programme identified a series of activities to achieve the Council's commitment to become carbon neutral by 2027 for its own operations. It also detailed how the Council would 'influence, encourage and assist the local community to strive towards the same goal'.

Table 2 – Climate Change Drivers



## Strategic Vision

The Council's vision as identified in the Corporate Plan 2020 - 2024 is;

**“A greener, safer, healthier Broxtowe where everyone prospers”.**

To achieve this vision, the corporate plan has a number of key strategic aims for priority areas. The strategic aim for the Environment is:

**‘The environment in Broxtowe will be protected and enhanced for future generations’**

The strategic aim will be delivered through the following three key priorities:

- Develop plans to reduce our carbon emissions to zero and start implementing them.
- Invest in our parks and open spaces.
- Increase recycling and composting.

## Delivering the strategy

To deliver on the commitment to be carbon neutral by 2027 the Council will:

- Reduce its carbon emissions year on year.
- Engage with all stakeholders on issues regarding climate change at every opportunity.
- Refresh the Climate Change Strategy and Carbon Management Plan regularly to ensure it remains relevant, up-to-date and fit for purpose.
- Review projects and approve investment based on a cost to benefit rationale.
- Look to work with external partners to seek investment, funding and professional advice.

**The strategic aims for the Climate Change Strategy are:**

- To become carbon neutral by 2027 for the Council's own operations.
- To establish a baseline for all carbon scopes and then to propose a date for net zero using science based targets for the Council's own operations.
- To align to the UK's net zero Commitment of 2050 for the Borough and establish the actions and potential budget required to achieve this (working to an earlier date if possible).







### The difference between carbon neutral and net zero

It is often assumed that ‘carbon neutral’ and ‘net zero’ mean the same thing. Whilst they both will achieve the same end result (to remove carbon emissions from the earth’s atmosphere), the scope and source of emissions that are removed are different.

	Carbon Neutral	Net Zero - best practice
<b>Defined by:</b>	PAS 2060 standard.	Standard developing.
<b>Measurement Scope 1 and 2</b>	Required.	Required.
<b>Measurement Scope 3</b>	Not required.	Required.
<b>Carbon reduction target</b>	No requirement to reduce carbon emissions on a certain trajectory in order to be carbon neutral.	Zero (Reduce to as close to Zero as possible). To be net zero an organisation must be reducing its emissions along a 1.5°C trajectory across Scopes 1, 2 and 3.
<b>Residual emissions</b>	To achieve carbon neutrality, an organisation must purchase carbon offsets that either result in carbon reductions, efficiencies or sinks.	For net zero, an organisation must purchase greenhouse gas removals that result in carbon sequestration from the atmosphere.

Table 3 – Carbon Neutral/Net Zero Definitions  
 Source: [www.carbontrust.com/what-we-do/assurance-and-certification/carbon-neutral-certification](http://www.carbontrust.com/what-we-do/assurance-and-certification/carbon-neutral-certification)  
[www.planetmark.com/about-us](http://www.planetmark.com/about-us)

### The need to move towards net zero at pace

Unless more far reaching action is taken, scientists are predicting that global warming will exceed 4°C by 2100 and the impact from such a rise would be catastrophic for the planet.

In March 2023, the Intergovernmental Panel on Climate Change (IPCC) released a report part updating on the impacts of climate change. The report warned that globally our “Pace and scale of climate action are insufficient to tackle climate change” and that “adverse impacts from human-caused climate change will continue to intensify” including:

- Increase in agricultural and ecological drought.
- Increase in wildfires.
- Increase in flooding.
- Increase in extreme weather events – including heavy rainfall and heatwaves.
- Melting of glacial ice, leading to a rise in sea levels.

The report highlighted that the world has already warmed by 1.1°C and is likely to breach the 1.5°C threshold in the 2030s (this is something that governments had agreed to act to avoid). This means that urgent action is required now as there is a “rapidly closing window of opportunity to secure a liveable and sustainable future” (IPCC 2023).

The report highlights that if the 1.5°C rise is breached then this could be reduced again by achieving and sustaining net zero. The Council’s commitment to become carbon neutral is a strong starting point to managing the impacts of climate change. However, to ensure that action is undertaken fast enough the Council must work towards becoming net zero following a 1.5°C pathway.





## The initial baseline study

Back in 2009 the Council commissioned a baseline study by the Carbon Trust to establish its carbon emissions.

Carbon emissions refer to the six main greenhouse gases (GHG's) as set out in the Kyoto protocol:

- Carbon Dioxide
- Methane
- Nitrous Oxide
- Hydrofluorocarbons
- Perfluorocarbons
- Sulphur Hexafluoride

All of these have negative impacts, warming our climate via the Greenhouse Effect and therefore causing climate change.

Though emissions are comprised of several GHGs, they are converted into a common unit called Carbon Dioxide Equivalent (CO<sub>2</sub>e) for reporting purposes, and are often referred to simply as 'carbon emissions'.

The study established a baseline of 4,242tCO<sub>2</sub>e for Scopes 1, 2 and business travel (Scope 3)

emissions. A carbon management plan was produced, which supported the ambition of achieving a 34% reduction by 2020.

## Declaration of the Climate Emergency

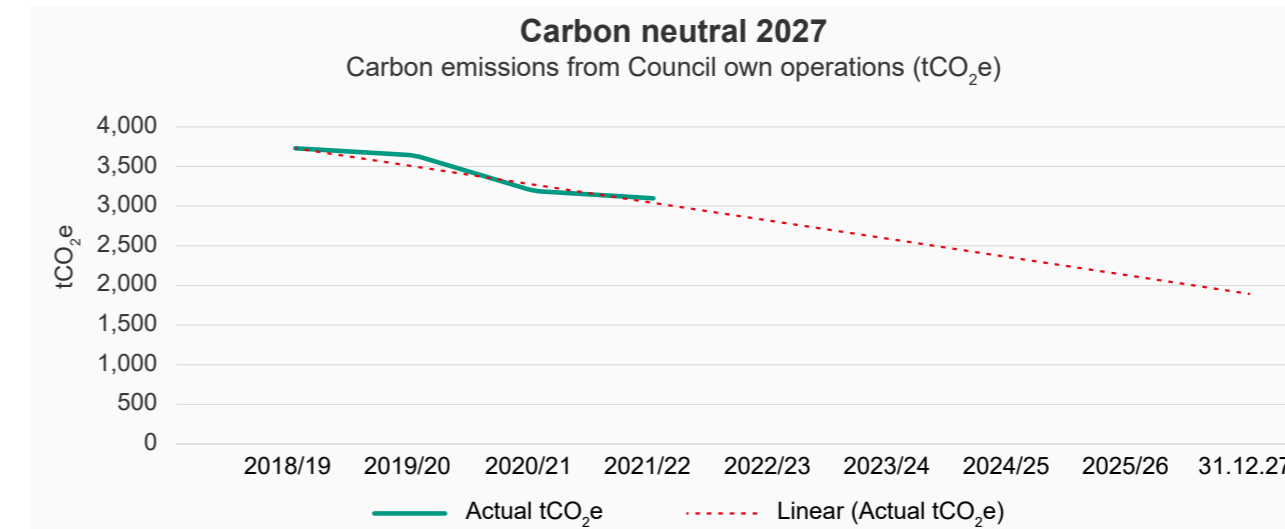
After the declaration of the Climate Emergency in July 2019, a further study by the Carbon Trust was commissioned. This followed the same parameters of the original study to allow for consistency.

The outcome of the second study highlighted that the Council had reduced its carbon footprint by 45% based on a 2009/10 baseline. This reduction was achieved through the delivery of 60 projects which included, refuse round rescheduling efficiencies and the installation of solar photovoltaics panels on the Council's own buildings (Image 2).

## Re-establishing the baseline

In November 2021, the Environment and Climate Change Committee approved the re-calculation of the Council's own operation baseline to incorporate emission data that had previously not been included (this was a recommendation by the Carbon Trust in their 2018/19 report). The new baseline was established at 3,704 tCO<sub>2</sub>e for 2018/19.

Graph 1 shows the carbon emission figures for Broxtowe Borough Council since the rebaselining exercise in 2021.



Graph 1 - Broxtowe Borough Council own operation carbon emissions since 2018/19

## Where are we now?

In 2020/21 the Council achieved a 12% reduction in its emissions and a further 3% reduction in 2021/22 (a positive result given that the Council had come out of COVID restrictions and it was fully expected that emission levels would have risen).

Image 3 details the Council's latest Carbon emission data.

### Key points:

- Carbon reduction of 3% compared to the previous year.
- Just over half of the Council's own operation emissions come from gas usage.
- Fleet emissions account for 27% of the overall total emissions.

# Broxtowe's Carbon Reduction Journey



Image 2: Solar PV on the main Council offices at Foster Avenue - Beeston

Image 3 - The Council's Carbon footprint for 2021/22



Section three

# Achievements

As of 2021/22, actions undertaken from the original Climate Change and Green Futures programme have resulted in a 16% reduction in carbon emissions against the the recalculated 2018/19 baseline.

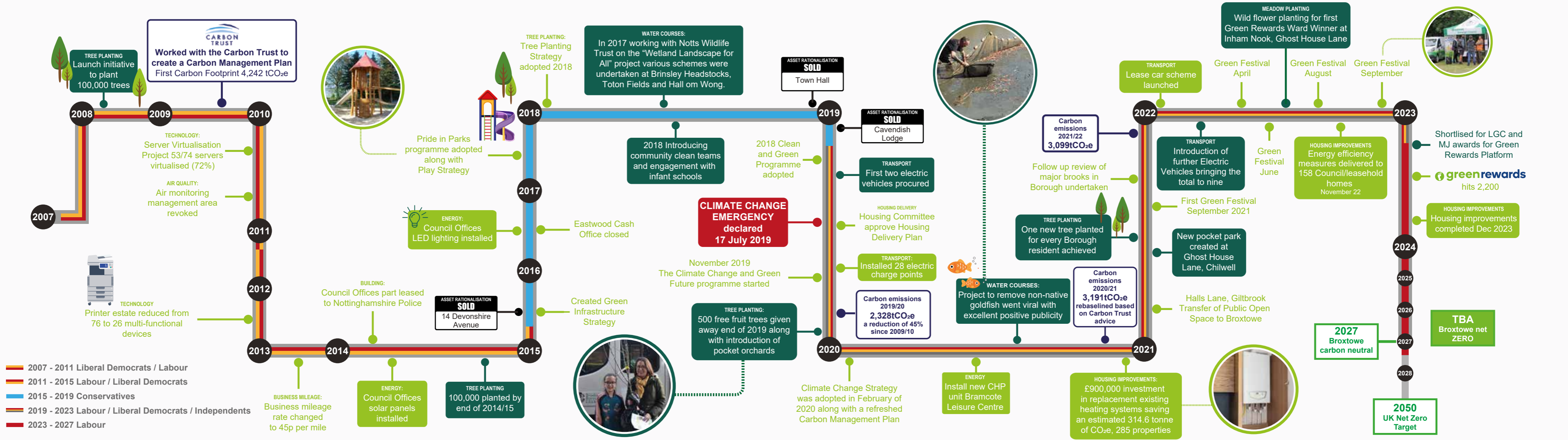
The cross cutting actions achieved to support this reduction include:

- Introduction of further Electric Vehicles (3.5 tonne vans) bringing the total to 9, saving approximately 2 tonnes of carbon per year, per vehicle.
- New car leasing scheme (August 2021) introduced, promoting low emission/EV cars for employees.
- Creation of pocket parks including Ghost House lane Inham Nook, Chilwell – September 2022.
- Mini Orchard planted at Grove Avenue Allotments in February / March 2021.
- Bee-line at Leyton Crescent was planted - November 2021.
- 3,357 trees planted across the Borough in 2021/22 and 134,618 since the start of the tree planting programme in 2008.
- The launch of Green Rewards in October 2021 with over 2,330 registered users to date.
- 33% reduction in employee business mileage.
- 100% renewable electricity energy tariff.
- Additional employee resources for recycling and climate change.





# Climate Change and Green Futures Timeline



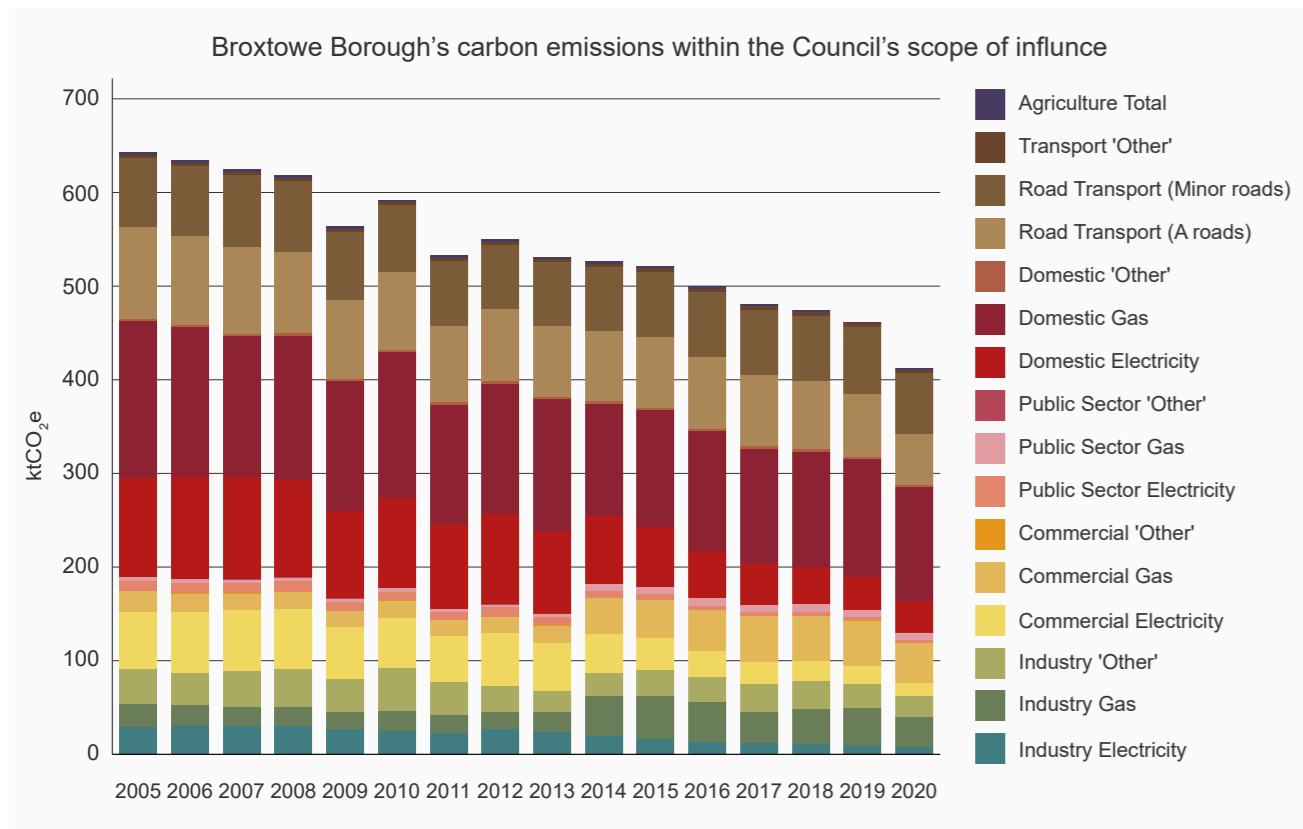


## Broxtowe Borough's carbon footprint

Broxtowe Borough Council has a key role to play when it comes to achieving the UK's 2050 net zero greenhouse gas emissions target. The latest available information from BEIS suggests that the Council's own emissions contribute approximately 2 to 5% (this is all carbon scopes) to the Boroughs overall emissions.

In 2020 the Borough of Broxtowe is calculated to have emitted 412.2 ktCO<sub>2</sub>e (Source: Business, Energy and Industrial Strategy Department: UK local authority carbon dioxide emissions national statistics). This equates to:

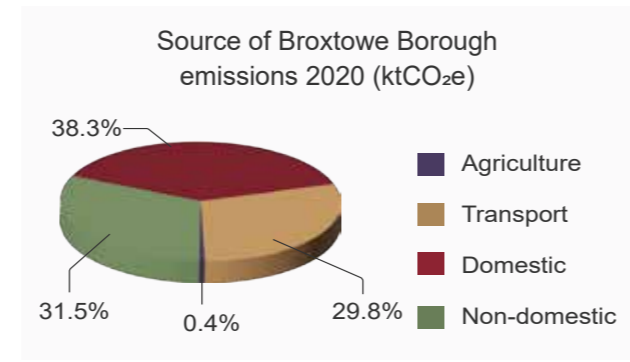
- Per Capita emissions 3.6 (tCO<sub>2</sub>)
- Emissions per km<sup>2</sup> 5.1 (ktCO<sub>2</sub>)



Graph 2: Carbon emissions for the Source: Department for Business, Energy and Industrial Strategy (BEIS) (June 2021)

Since 2005 Broxtowe's per capita emissions have reduced by 39%, this is largely due to the decarbonisation of the electricity grid; however, other energy efficient measures for transport and homes have also contributed to this decline. (Source: ONS 2021)

Whilst it is positive that Borough emissions are reducing, these are not reducing fast enough. graph 3 shows domestic emissions (from gas and electricity usage for domestic dwellings) accounts for the largest portion of emissions at 38.3%, non domestic emissions (from commercial, industrial, retail and public sector properties) accounts for 31.5% of Borough emissions and this is followed by transport 29.8% (from all vehicles including cars, LGVs, motorcycles, buses and HGVs) and then agriculture at less than 1%.



Graph 3: Source of Broxtowe Borough emissions (ktCO<sub>2</sub>e)

## Broxtowe Borough's carbon budget

### Carbon Budget Definition

This is the amount of carbon dioxide permitted to be emitted over a certain period of time, which would allow global warming to be limited to no more than 1.5°C. Dealing with the environmental consequences from a temperature rise above the 1.5°C threshold is seen by some scientists as irreversible.

### Tyndall Centre for Climate Research

Researchers from The University of Manchester and the Tyndall Centre for climate change research have developed an online tool which can be used by local authorities to help understand their role in meeting the climate change objectives.

Tyndall Carbon Budget Reports provide UK local authority areas with budgets for energy related CO<sub>2</sub> emissions from 2020 - 2100 (graph 4). This allows users to calculate a carbon budget for their Council and will enable climate change targets to be set. These targets will then help meet the objectives of the United Nations Paris Agreement on climate change.

### Carbon Budget for Broxtowe

The carbon budget identified for Broxtowe applies to only CO<sub>2</sub> emissions from energy systems. An energy system is defined as 'systems meeting our everyday needs through a range of services, including; heating, cooling, mobility and powering appliances' (Source: Tyndall Centre for Climate Change – Setting Climate Commitments for Broxtowe).

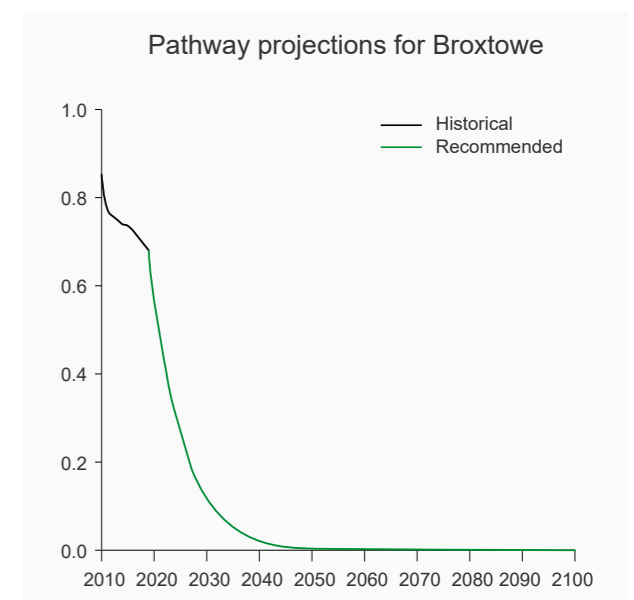


Using the toolkit, the report recommended that for Broxtowe to make a 'fair' contribution towards the 1.5°C temperature change threshold for the period 2020 to 2100, the Borough should stay within a maximum cumulative carbon dioxide budget of 4.1 million tonnes (MtCO<sub>2</sub>). The report warns that at 2017 CO<sub>2</sub> emission levels,

### Broxtowe would use its entire carbon budget up within six years from 2020.

(Source: Tyndall Centre for Climate Change – Setting Climate Commitments for Broxtowe).

Given that this is a similar position for most local authorities, it only goes to demonstrate that an accelerated response from all stakeholders is necessary in order to mitigate the worst impacts of climate change.



Graph 4: Pathway projections for Broxtowe



Section four

# Governance

The Council currently operates under a Cabinet system with a Lead Portfolio Holder for each priority area within the Council. Represented on the Cabinet is a Portfolio Holder for Environment and Climate Change.

Within the Council, climate change is managed across the whole organisation. Each department is responsible for delivering projects and improvements in their specialist work areas.

Under the refreshed strategy, ten cross cutting climate change themes will all be managed by

a theme lead. Within each theme, there are a number of project strands. These project strands are represented by an individual. The programme theme leads are responsible for governing the delivery of the projects strands with strand leads being responsible for the delivery of the project.

The theme leads report to a Climate Change and Green Futures Programme Board, which meet on a quarterly basis. This group provides updates on progress to the General Management Team. The governance structure is demonstrated in figure 1.

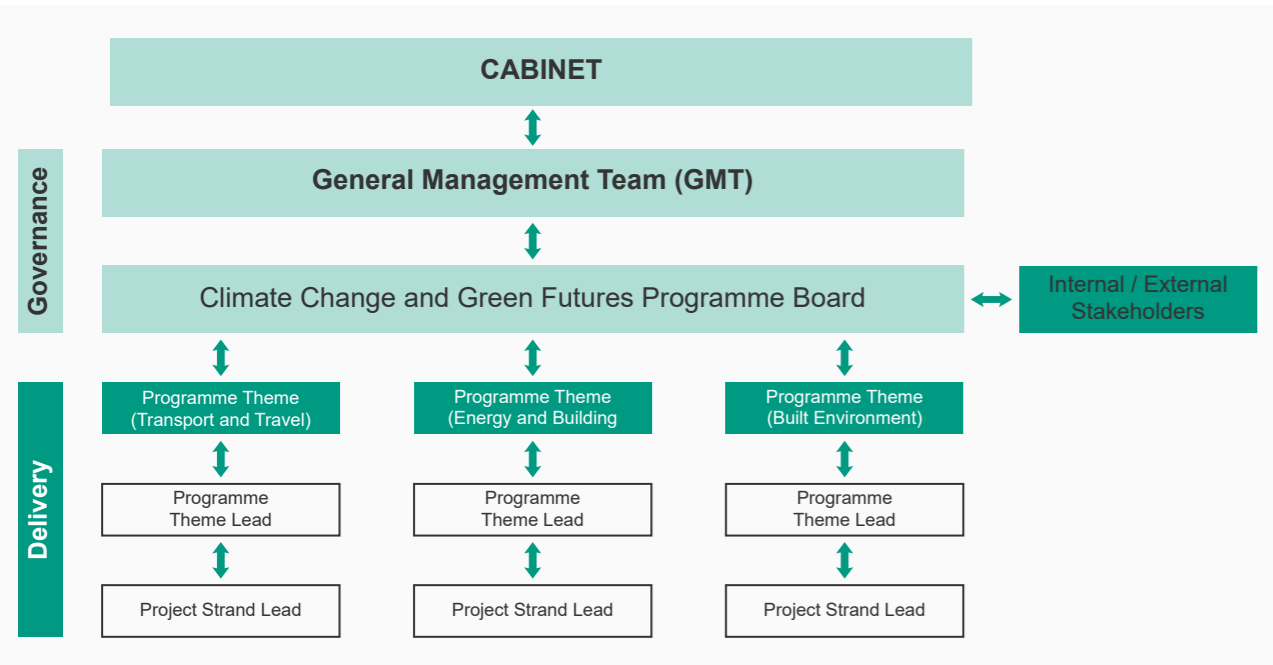


Figure 1: Climate Change and Green Futures Governance Structure

## Governance Strategies

The Council has a number of corporate strategies which address and support improvement with regards to climate change. These strategies are aligned to the Council's corporate plan and support the Council's corporate aims and objectives. These strategic documents include:

- Green Infrastructure Strategy
- Waste Strategy
- Local Plan
- Planning Core Strategy
- Site specific habitat management plans
- Communications Strategy
- ICT Strategy
- Air Quality Strategy
- Digital Strategy
- Tree Strategy
- Housing Delivery Plan

Section five

# Strategy Review and Consultation

After the publication of this refreshed strategy, the document will go out for public consultation to enable greater stakeholder input, to help inform future iterations of the strategy. It will also help to identify any issues or concerns that have not been previously addressed.

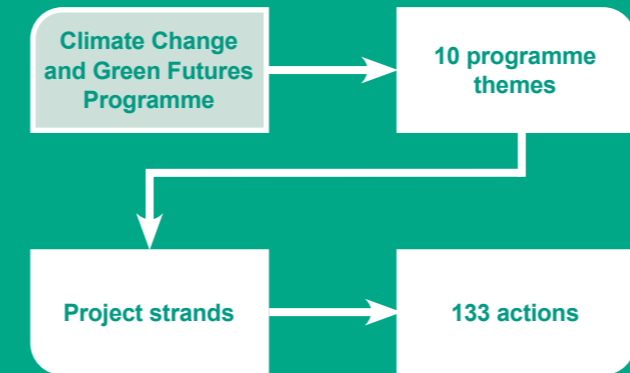


Figure 2 – Climate Change and Green Futures programme details

The Climate Change Strategy is a live document and will be reviewed regularly to ensure it is up to date, relevant and meets all legislative requirements.

Section six

# Carbon Management Plan

The Carbon Management Plan sets out the actions that will be delivered to reduce emissions and achieve the strategic aims within the climate strategy. Those actions include activities to address the Council's own carbon footprint as well as those aimed at influencing residents, the local community and businesses to work towards the same ambition.

The Climate Change and Green Futures Programme is the delivery vehicle by which the Carbon Management Plan is managed. The Plan will be reviewed regularly with the programme theme leads and during the quarterly governance meetings.



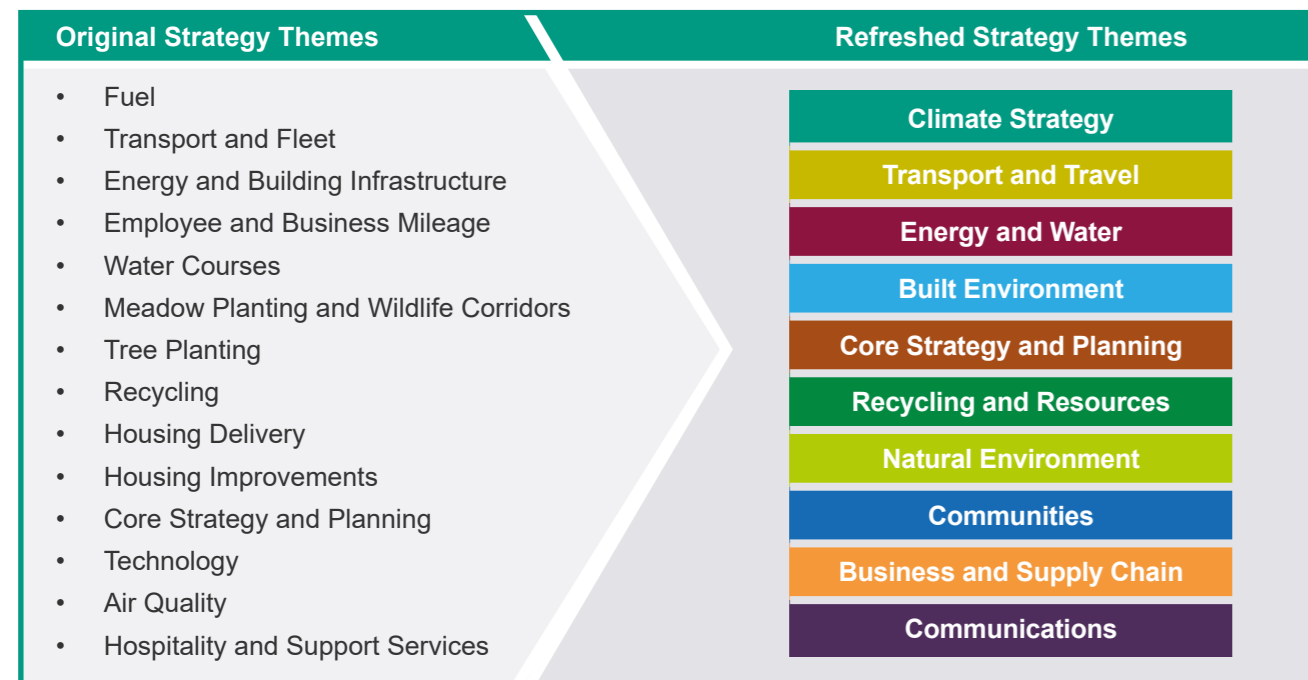


Section seven

# New Themes

A review of the strategic themes has been undertaken as part of the Climate Change Strategy refresh. The review resulted in the creation of ten strategic themes, which enhance and widen the scope from the original topic areas. These revised themes provide the appropriate governance and overview needed to ensure an appropriate direction of travel supporting a carbon neutral and net zero commitment.

The table below shows the original and revised strategic themes.



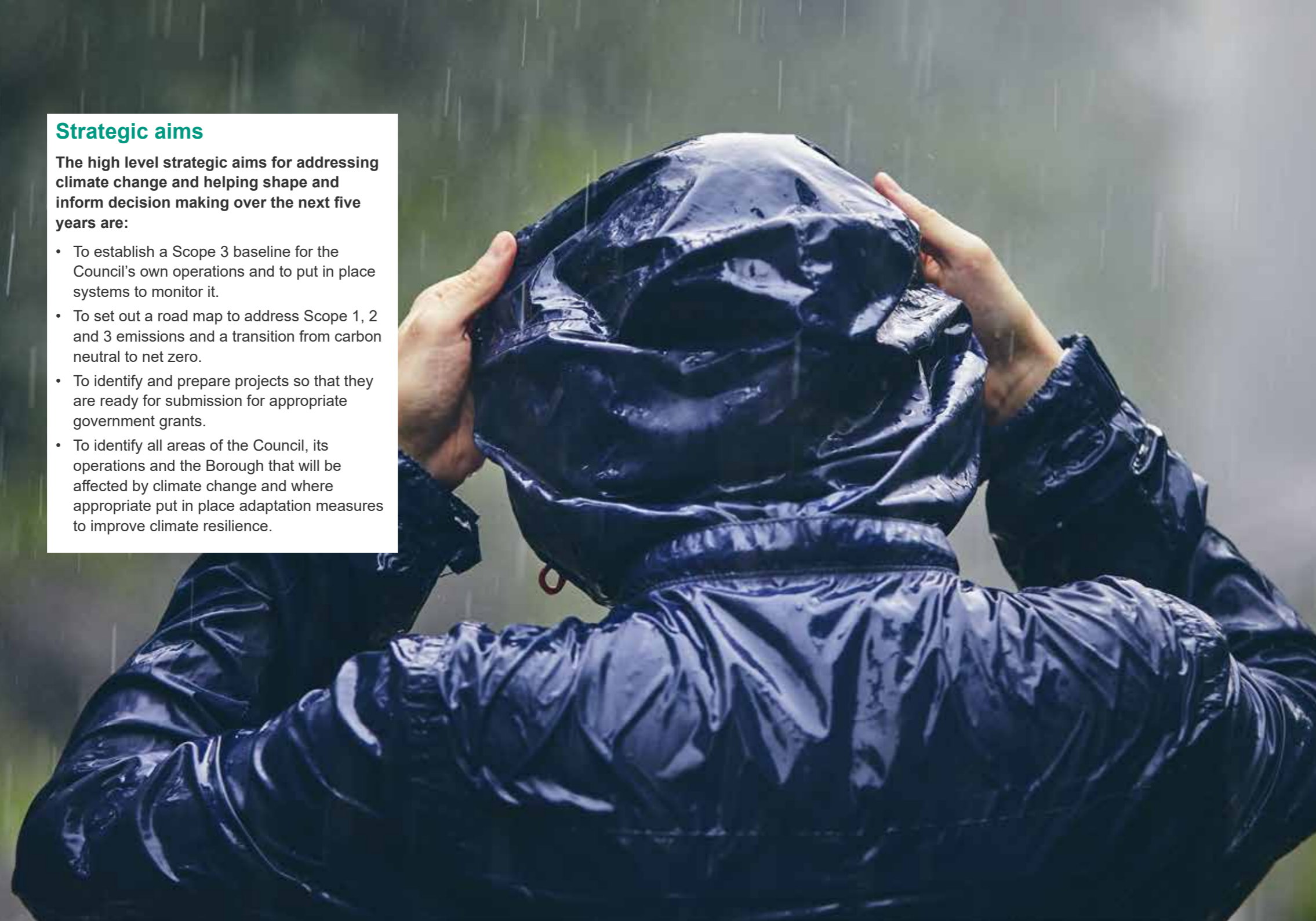


# Climate Strategy

## Strategic aims

The high level strategic aims for addressing climate change and helping shape and inform decision making over the next five years are:

- To establish a Scope 3 baseline for the Council's own operations and to put in place systems to monitor it.
- To set out a road map to address Scope 1, 2 and 3 emissions and a transition from carbon neutral to net zero.
- To identify and prepare projects so that they are ready for submission for appropriate government grants.
- To identify all areas of the Council, its operations and the Borough that will be affected by climate change and where appropriate put in place adaptation measures to improve climate resilience.



## Climate strategy and funding

Since the declaration of a Climate Emergency nearly four years ago, it was recognised that in order to deliver the actions of the Climate Change and Green Futures Programme a significant level of funding would be required. Initially projects have been supported, where possible within existing budgets or from government funding. However, due to the level of expenditure required (especially on some of the more comprehensive infrastructure projects), the Climate Change and Green Futures Programme needs to be aligned and integrated within the Council's Medium Term Financial Strategy (MTFS). To support this, other potential funding sources will also be explored. These include:

- Direct local authority
- Nottinghamshire County Council / Devolution
- Government Grants (PSDS / SHDF / LAD)
- Funding from business
- Biodiversity Net Gain

## Adaptation and climate resilience

Planning for climate mitigation and adaptation is not only necessary on the macro scale but also at a local level. Extreme weather conditions have the ability to impact directly on the services provided by the Council. Increased risk of grass fires, or heat exposure to employees, are all issues which will undoubtedly need to be included in service planning in the future.

To build service resilience, a number of emerging strategies will inform the direction on how the Council will adapt its services and facilities to account for the impacts of climate change.

## Climate Change inclusion in all Council key decisions and policies

As part of our response to climate change, the Council will look to include a climate change implications section in all relevant committee reports. This will identify:

- What effect Council activities have on the climate and what will be implemented to mitigate these.
- What impacts a changing climate may have on Council services and functions and what actions will be taken to adapt to this and improve Council climate resilience.

Including a climate change consideration into all relevant Cabinet / Committee committee reports will:

- Encourage officers to consider climate change impacts when writing and researching reports and policies.
- Improves visibility with regards to the decision making process and enable Members and residents to see and understand the impact that climate change will have on decisions.





**THEME TWO**

**Transport and Travel**

**Strategic aims**

The high level strategic aims for addressing transport and travel over the next five years are:

- Continue to explore and introduce reliable alternative fuels for the fleet and plant.
- Encourage the use of public transport.
- Improve air quality.
- Raise awareness and influence behaviour change to increase uptake of Active Travel options.
- Develop an EV charging infrastructure strategy for the Borough.

**Broxtowe Borough Council fleet**

Based on 2021/22 carbon footprint data, the Council's fleet contribute 27% (832 tCO<sub>2</sub>e) to the Council's overall carbon emissions. A sustainable fleet is one that considers a combination of electrification, alternative fuels along with operational and driving efficiencies.

The Council will continue to review appropriate opportunities for operating a diverse fleet of vehicles and plant to ensure the most cost effective lifecycle and incorporating carbon emission efficiency.

The Council will train its employees in the most fuel efficient driving techniques. This will achieve additional benefits through reduced wear and tear and lifecycle extension.

**Electrification of the fleet**

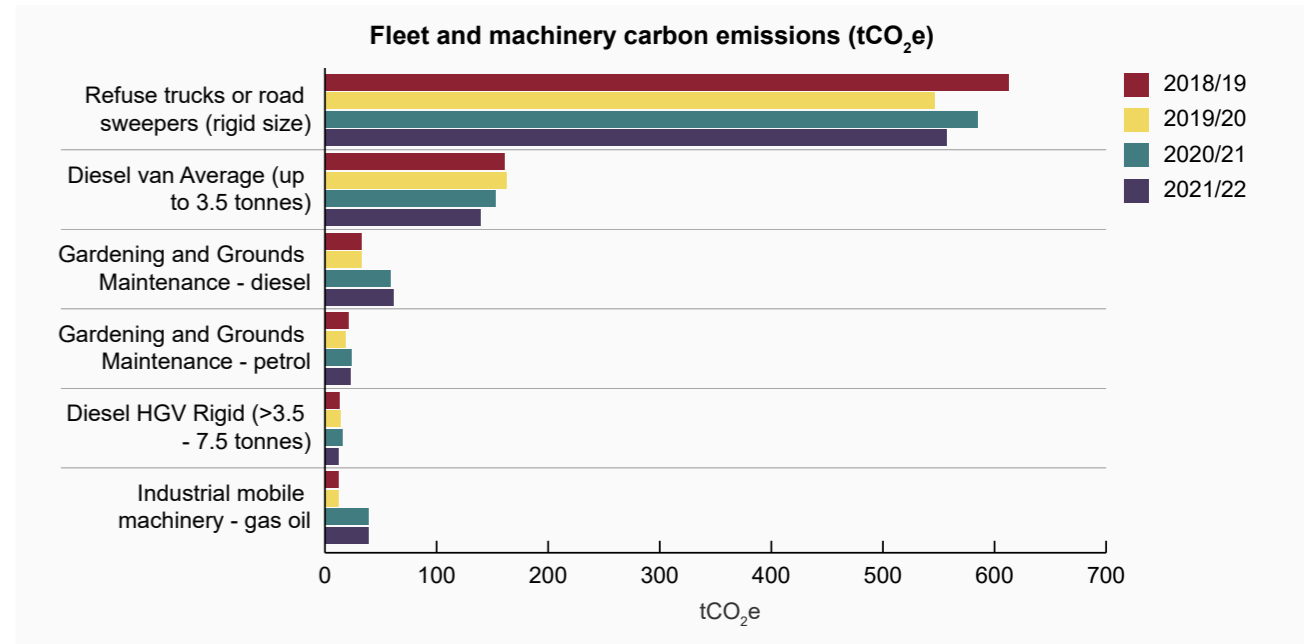
The majority of transport emissions arise from the refuse and cleansing fleet (graph 4). Decarbonising the fleet, using methods such as electrification or alternative low emission fuels, is a priority for the Council. A transition to electrification across the fleet is currently cost prohibitive. However, progress is being made to facilitate this through methods such as installation of shared charging facilities across the D2N2 network, which will provide a greater driving range for council vehicles across Nottinghamshire.

**Business mileage**

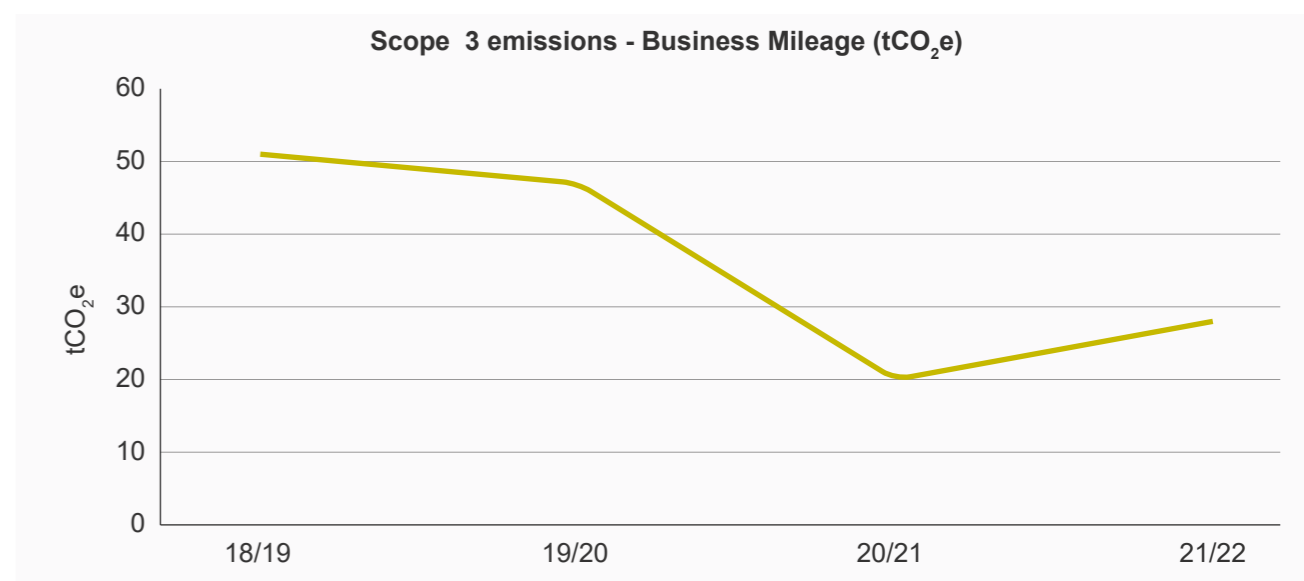
Business mileage undertaken by Council employees and Members falls under Scope 3 emission reporting. Graph 5 shows carbon emissions arising from business travel.

The Council will continue to promote the use of low emission vehicles to employees along with improved journey planning to reduce their transport footprint emissions.

Employee's commute to work also contributes towards Scope 3 but as yet this data is still to be benchmarked, but will be established within the coming year.



Graph 5 – Fleet and machinery carbon emissions



Graph 6 – Carbon emissions resulting from Broxtowe Borough Council employee business mileage



## Sustainable travel options

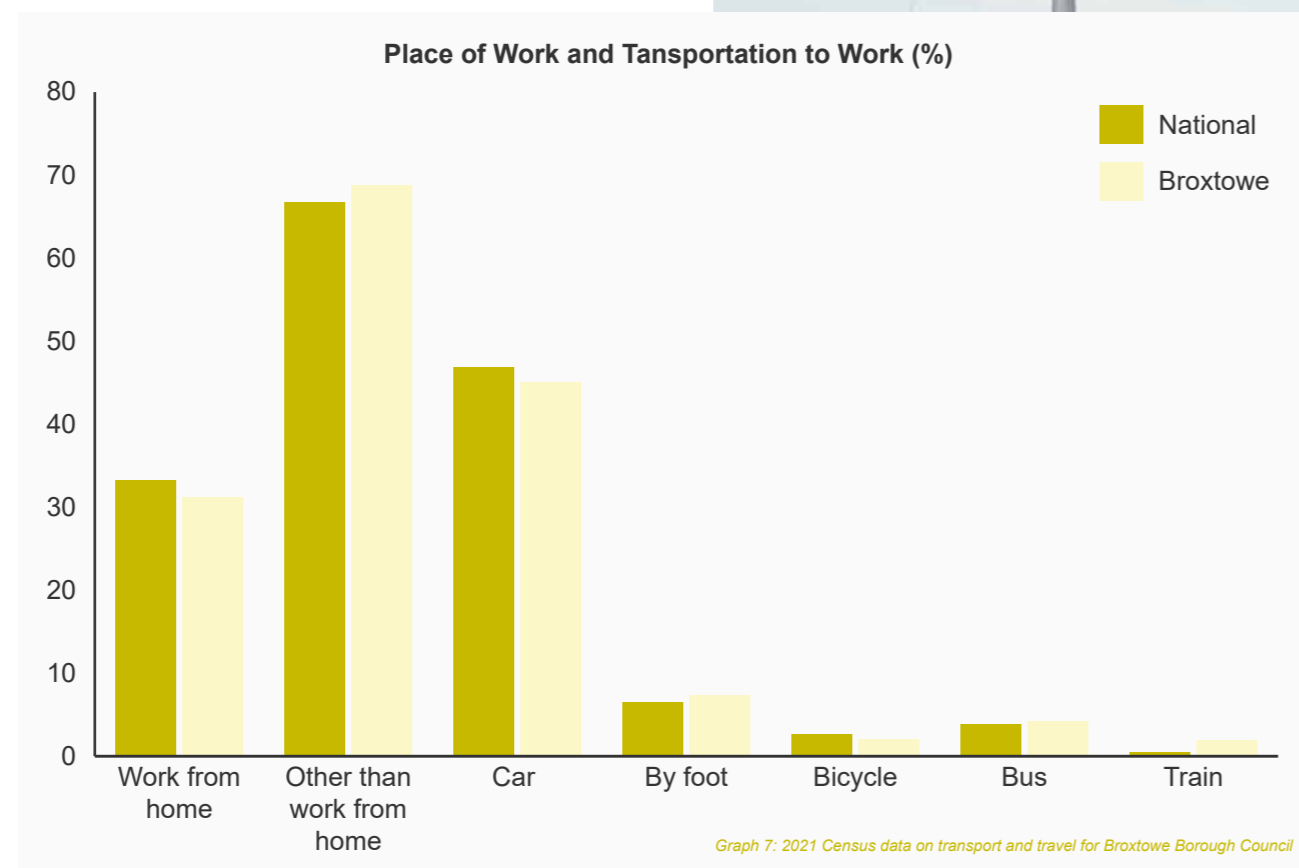
The Council will encourage residents to make sustainable choices regarding their travel arrangements by:

- Promoting public transport.
- Encouraging car share.
- Working with external stakeholders to help expand the number of EV charging points across the Borough (both off and on street).

As shown in graph 7, the 2021 CENSUS data shows:

- 31.2% of residents aged 16 years and over and who are in employment worked mainly at or from home.
- 8.9% of people travelled less than 2 kilometres,
- 13.5% travelled between 2 and 5km
- 15.9% travelled at least 5 kilometres to less than 10 kilometres.
- The most selected mode of travel to work was driving a car or a van at 45.1%. 7.3% of people travelled by foot, 2% travelled by bicycle, 4.2% by bus and 1.9% by train.

This shows the impact of homeworking and how 'new ways of working' has affected resident's commute. This information will be used to support the delivery of this programme theme.



Graph 7: 2021 Census data on transport and travel for Broxtowe Borough Council



## Active Travel

Not only is transport a cause of air pollution, it accounts for 28% of greenhouse gas emissions in the UK (Source: Gov.UK - Climate and health: Applying All Our Health (May 2022)). Both of these impact the health of our residents and our climate.

By increasing awareness and participation in active travel, the Council will not only support a reduction in unnecessary vehicle journeys, but will increase the physical activity of our residents, offering them improved health and wellbeing.

'Barriers to participating in active travel can relate to matters such as bike thefts. Any promotion and investment in active travel should look to address such matters'



**Strategic aims**

The high level strategic aims for addressing energy and water related issues over the next five years are:

- Produce a decarbonisation plan for the Councils' key building assets.
- Energy and water efficient properties to be a key theme of the new Housing Delivery Plan.
- Continue to secure external funding to retrofit existing housing stock.
- Produce a fuel poverty strategy.
- To signpost residents and businesses to appropriate energy and water efficiency funding streams.

2021/22 the Council's energy consumption accounted for 70% of its current overall footprint. From a Borough perspective, domestic energy consumption accounts for 38% of its total emissions.

A reduction in energy consumption and decarbonising heating systems is a core objective for the Council. As well as the impact on climate change, the war in Ukraine has highlighted the risks and vulnerabilities on the reliance of fossil fuels.

The rapid inflationary pressures on fuel and energy prices has impacted on the Council, residents and local businesses. A reduction in energy consumption and a move to more sustainable technologies is critical in order to provide improved energy security as well as mitigate against the worst impacts of climate change.

**Energy management**

Energy management in buildings is an important area that will assist in achieving carbon neutrality and net zero. It is nevertheless challenging where buildings are old, or even listed and are therefore inherently energy inefficient.

The more recent challenge is as a result of COVID, where working from home, or hybrid working have resulted in buildings, particularly offices, being underutilised.

Understanding how energy can be saved, as well as it is used, are both key components regarding efficient and intelligent energy management. The principle of the 'fabric first' approach (ensuring the structure is as insulated as it can be), the way in which energy is purchased (acquiring energy from renewable/green energy sources) and determining peak usage trend through meter readings, are all key parts of energy management.

There will be a decarbonisation plan produced for four of the Council's key assets in 2023; the Council Offices, Kimberley Depot, Bramcote Leisure Centre and Bramcote Crematorium. This information will help to support any potential decarbonisation funding bids the Council submits for these assets.

Where possible the Council will look to promote measures to improve energy efficiency by offering advice and signposting the community with Broxtowe to relevant grants.

**Fuel poverty**

Fuel poverty occurs when a householder needs to spend more than 10% of their income to adequately heat their home. The solution to fuel poverty is to ensure that all householders can achieve 'affordable warmth', that is all householders should be able to heat their home



sufficiently to maintain health and well-being without spending over 10% of their income.

Although the greatest impact on fuel poverty is household income and the cost of energy, inefficient heating systems and poor insulation also contributing factors. Improving the energy efficiency of housing is an essential step to reduce the number of people in fuel poverty.

A fuel poverty strategy will be produced identifying measures to address the impacts of fuel poverty on Broxtowe residents.

**Renewable energy generation**

A number of Council assets have renewable energy supplies fitted in the form of solar PV panels. Broxtowe will establish a benchmark for energy generation and set renewable targets for future years.

Residents and businesses are encouraged to change to renewable energy suppliers where



possible. The Council facilitates this through signposting and administering external grant aid funding systems.

**Water management**

Water is a valuable resource and its management is therefore a priority. The Council will explore opportunities to maximise water efficiency savings across its own estate as well as promoting positive behaviour habits for residents and businesses in order to reduce demand on supply.

**THEME THREE**

**Energy and Water**





# Built Environment



## Strategic aims

The high level strategic aims for addressing relating to the Built Environment over the next five years are:

- Develop a suite of documentation to provide guidance on sustainable new build properties.
- Develop a long term retrofit strategy for private householders in Broxtowe.
- Ensure that all funding opportunities that would benefit private householders are applied for (e.g. Sustainable Warmth, SHDF, HUG2).
- Develop guidance that will allow householders to understand what retrofit measures are suitable for their homes and how they can access grant funding to facilitate this.

The built environment is one of the most significant contributors to Climate Change. Moncaster (Source: Open University Climate Change and the Built Environment (2022)) identified that the built environment is responsible for 39% of all global carbon emissions. 28% is from operational activity such as heating, lighting and cooling and 11% is from embodied carbon, arising from the construction of new buildings.

## New buildings and development

For both newly built and redeveloped commercial properties, the planning and building regulations are key drivers for ensuring that the climate change agenda is taken into consideration as part of the process.

The Council's target for the total number of new builds across the Borough is 350 each year. Contributing to this is the target to increase the number of Council owned homes by 200 across a 10-year period (2019-2029).

The planning regime and building regulations will ensure that sustainable practice is considered in all new schemes. In all new build Council projects, consideration will be given to designs that reflect the use of low carbon / zero carbon materials, the installation of renewables and energy efficient measures.

## Retrofit of existing private housing stock

There are currently 50,954 households across the Borough and a breakdown by housing property type is shown in table 5.

Housing Type	Total Properties
Semi-detached	16,724
Detached	16,269
Terraced	11,572
Flat	5,680
Sheltered accommodation	602
Caravan	94
Houseboats	12
Other	1
<b>Total</b>	<b>50,954</b>

Table 5: Housing types in Broxtowe Borough Council

Analysis of BEIS data for the Borough (Section 2) shows that heating and lighting of homes is one of the biggest contributing factors for the Boroughs' carbon emissions. Therefore, sign posting and engaging with residents on appropriate retrofit and home energy efficient measures is essential.

## Housing stock including Independent Living

The Council's housing stock has been subject to retrofitting with regards heating systems and loft insulation. There is a planned maintenance programme in place to support the roll out of further measures. In addition, the Council have commissioned an asset management review that will form the foundation for identifying opportunities to address energy efficiency issues and enable a programme of activity to be determined.

Broxtowe Borough Council have a total of 564 properties that are classed as hard to treat (for example properties that are steel framed or that are in conservation areas). Over the last 5 years the Council has made progress in reducing this number. This has been achieved through the Council's commitment to agree budgets and procure contracts to install energy efficiency measures.





## Local Authority Delivery (LAD) funding

The Council has utilised funding from the Local Authorities Delivery (LAD) and Sustainable Warmth funds. This has been used to deliver retrofit measures for 158 homes across the Borough. These measures have improved the energy efficiency within households of low income and low energy performance (energy performance certificate (EPC) ratings of D, E, F or G). This will help to reduce household energy bills, address fuel poverty and support the phasing out of fossil fuel heating.

The Council will continue to seek funding in order to support residents retrofit measures.

## Other social housing providers

Other Social Housing providers are responsible for ensuring the domestic properties they own are compliant with the legislation governing their sector.

The Council will work collaboratively with other social housing providers to ensure that their properties are as energy efficient as possible. The Council will also explore opportunities to secure funding in partnership with these providers.

## Private landlords

Private landlords are responsible for ensuring the domestic properties they own are compliant with the Domestic Minimum Energy Efficiency Standard (MEES). This requires a property to have an Energy Performance Certificate (EPC) with a minimum band E rating. This applies to all domestic private rented properties that are:

- Let on specific types of tenancy agreements.
- Legally required to have an Energy Performance Certificate (EPC).

The Council will enforce these standards and will be working with private landlords to ensure an appropriate approach is implemented.





# Core Strategy and Planning

## Strategic aims

The high level strategic aims for addressing issues relating to core strategy and planning over the next five years are:

- To include a climate change implications section in all relevant committee reports.
- To produce Supplementary Planning Documents (SPD) for Climate Change and Renewable Energy.
- To include additional policies on sustainability and climate change in the revised Broxtowe Local Plan.

"Planning has a vital role to play in enabling and encouraging the transition to a competitive and resilient low-carbon society that also supports the environment and human health and wellbeing."  
(Source: TCPA & RTP1 (2023))

Planning can also help with the mitigation and adaptation of climate change by:

- Providing opportunities for renewable and low carbon technologies.
- Promoting low carbon design approaches in building design.
- Consider future climate change risks over the life time of new development sites  
The Council's Core Strategy (the first part of the Local Plan) sets out the vision, objectives, spatial strategy and the strategic policies for the Borough up to 2028. The document provides a framework and sets



out the strategic policy direction for future developments in Broxtowe Borough, along with Nottingham City and Gedling Borough.

The Core Strategy provides a broad guide to development and growth in the Borough. It sets out key issues that will need to be addressed. It co-ordinates policies and programmes together with the public resources so that these can be delivered.

As part of this approach; appropriate, ambitious and meaningful planning policies will be introduced via the Local Plan process, or through supporting documentation. This will encourage and support sustainable development across the Borough.

## Local Plan

Currently a review of the strategic plan for Nottinghamshire is being undertaken. This plan will outline the main policy aims, and key areas for development, across the wider Nottinghamshire area. This plan will then 'feed' into a revised Broxtowe Local Plan, within which there will be additional policies on sustainability and climate change. Concurrently, work is being undertaken on a Climate Change and Renewable Energy SPD, which will assist homeowners and developers when considering these sustainable components and will outline the planning requirements associated with them.



**THEME SIX**

# Recycling and Resources

## Strategic aims

The high level strategic aims for addressing issues relating to recycling and resources over the next five years are:

- Follow and promote the principles of the waste hierarchy
- Increase education and engagement on recycling, especially around those materials that are difficult to process.
- Full review of current refuse rounds to incorporate capacity for the next five years
- Encourage more community involvement around recycling activities

Natural capital is one of our most valuable assets. The air we breathe, the water we drink, the land we live on, and the stock of material resources we use in our daily lives are at the heart of our economy, our society and our way of life.

The Council's Climate Change Strategy sets out how we will preserve our stock of material resources by minimising waste, promoting resource efficiency and moving towards a circular economy. At the same time, we will continue to minimise the damage caused to our natural environment by reducing and managing waste appropriately and in accordance with principles of the waste hierarchy.

## Round efficiencies

In 2018 the refuse team undertook a round review to rebalance and then future proof the current refuse and recycling collection system, so that it

could incorporate the number of scheduled new builds.

The current collection rounds are now reaching capacity and need to be reviewed again to ensure that they are fit for purpose for the next five years.

The intention was to wait until further detail had been received on the Environment Act 2022, but given the delay in receiving this framework it seems prudent to move forward with a review.

Whilst addressing capacity issues, the rounds can also be assessed for fuel efficiency, which will help support further carbon emission reductions.

Other areas to be reviewed to further support fuel savings and carbon emission reductions include:

- Review of the missed bin policy
- Consolidation of recycling rounds

## Increase recycling and composting

Recycling generally produces less carbon emissions than creating brand new products. In addition, recycling materials helps reduce deforestation, minimise greenhouse gas emissions, reduces energy consumption and eliminates the need for new raw materials to make products.

The kerbside recycling services provided by the Council are shown in table 6. The recyclables collected through the kerbside streams are in accordance with countywide disposal contract.

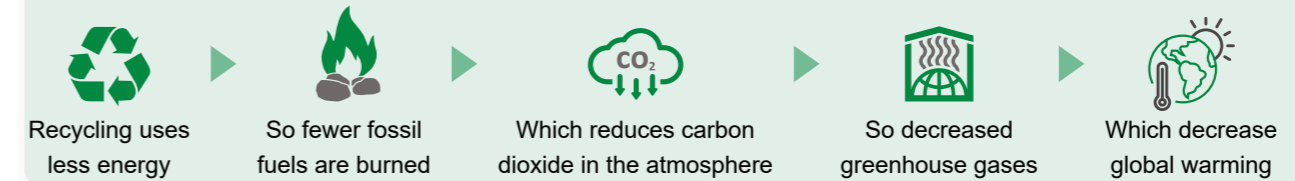
Recycling Stream	Recycling Criteria	Frequency and method
Mixed dry recycling	Paper / card / plastic bottles and their tops / margarine and butter tubs, yogurt pots	Alternate fortnightly with the general waste bin Collected in either a 140 litre or 240 litre bin
Mixed glass	Mixed coloured glass	Collected every 4 weeks in either a 37 litre bag (householders can have up to 4 free of charge) or a 140 litre red-lidded bin which is chargeable
Garden (Subscription service)	Grass cuttings, weeds, small branches, hedge clippings	Collected every fortnight (March to November, then monthly December to February) in a 240 litre brown bin

Table 6: Kerbside recycling streams collected in Broxtowe Borough

## HOW YOU CAN SAVE ENERGY BY RECYCLING

Everytime a new product is made from raw materials, large amounts of energy are consumed, recycling products decreases the amount of energy it takes to produce these items

### WHY WE SHOULD RECYCLE AND HOW WE CAN ALL MAKE A DIFFERENCE



### HOW MUCH ENERGY YOU CAN SAVE BY RECYCLING

Producing new aluminium from old products uses 95% less energy than making it from new materials.

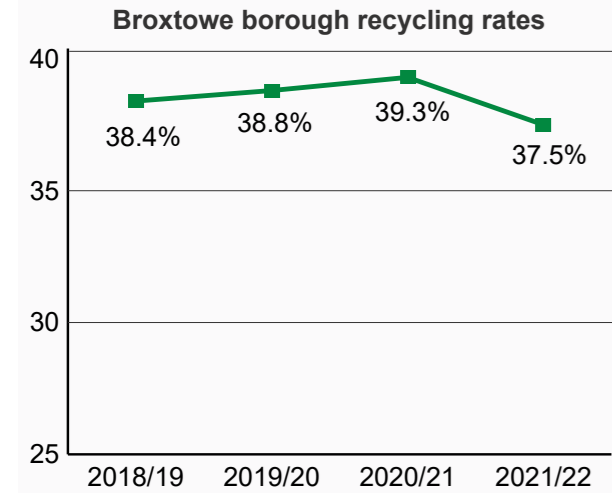
The amount of energy saved from recycling one glass bottle could power an old 100-watt light bulb for 4 hours and a new low-energy LED equivalent for a lot longer.

(Source: Friends of the Earth - '7 benefits of recycling' (2022))

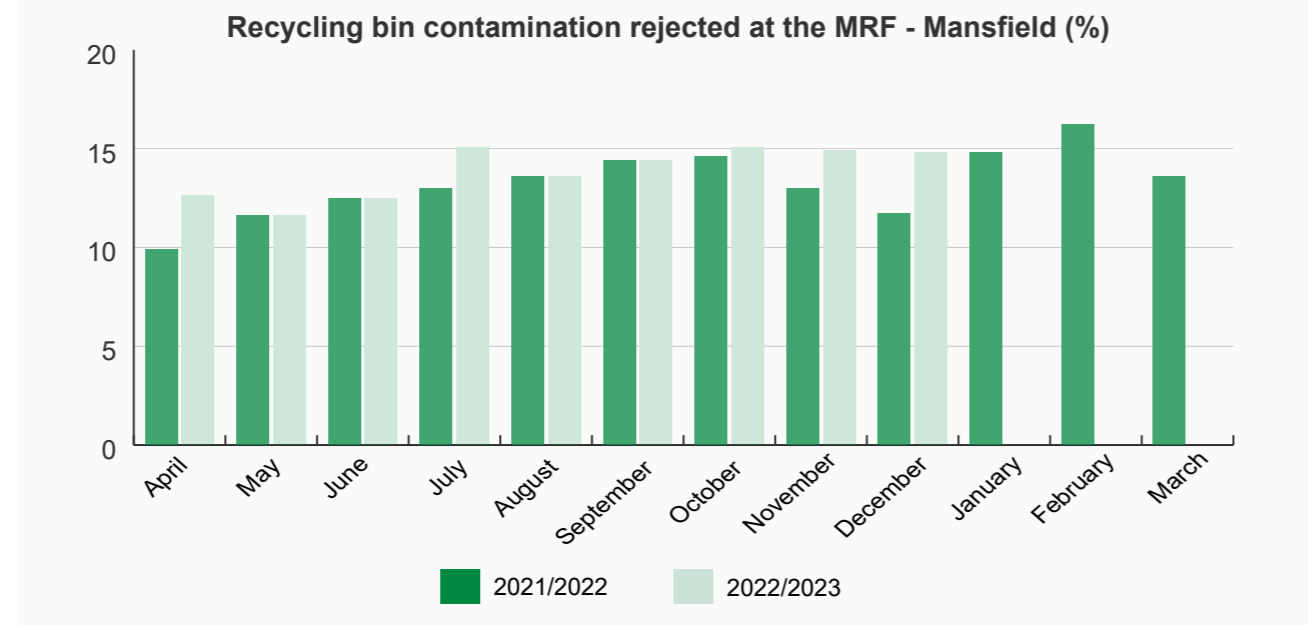
Figure 6: Saving energy by recycling



As graph 8 shows, recycling rates have stagnated somewhat over recent years. This is an issue that is not unique to the Council and has been experienced across the whole County.



Graph 8: Broxtowe Borough Council recycling rates



Graph 9: Broxtowe Borough contamination rates

This stagnation can be attributed to a number of factors, but it is understood that reduced engagement with stakeholders at both a national and local level has had an influence. The Council has recognised this and created a Waste and Recycling Engagement Officer role that will support activities set to reverse the current declining trend.

### Reduce contamination

Defra’s Resources and Waste Strategy states that there is a “need to drive better quantity and quality in recycling”. The Council wants to promote UK-based recycling and export less waste to be processed abroad, but sometimes this is not practicable. To ensure this process is as cost effective as possible the Council needs to ensure that recycling sent for processing is high quality.

WRAP defines contamination as ‘any unwanted materials that householders include in boxes, sacks or bins set out for recycling or collection crews placed in the wrong compartments of recycling collection vehicles’ (Source: WRAP – Tackling contamination in dry recycling (2020)). Unwanted materials in the recycling bin has the potential to contaminate a whole load of recyclables. Not only is contamination difficult to separate from the ‘clean’ material but it can become embedded within the material during the processing of making it. The Council will look at ways in which contamination can be reduced including a review of the current recycling bin contamination procedure.

### Promotion of the waste hierarchy principles

Within the waste industry there are five steps for dealing with waste and these are ranked according to environmental impact. This ranking is referred to as the ‘waste hierarchy’. It is important that the Council engages with residents to influence and drive behaviour change, encouraging stakeholders to adopt the waste hierarchy principles. This will lead to:

- An overall reduction in the waste produced
- A reduction in the waste being disposed of
- Preservation of natural resources
- Moving towards a circular economy

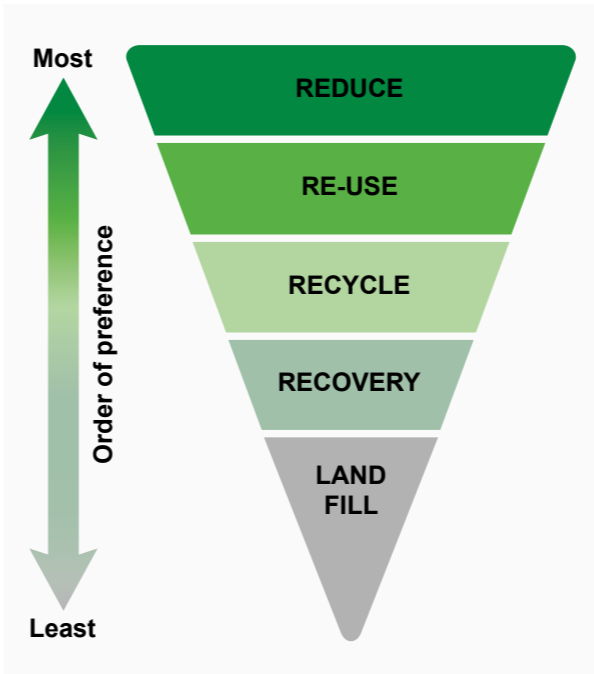


Figure 7: The Waste hierarchy

### Moving towards a circular economy

Adopting circular economy principles and strategies can significantly reduce greenhouse gas emissions. In the main, carbon reduction efforts are focused on renewable energy production and energy efficiency measures; however, a vast majority of emissions are associated with making products and the circular economy offers a solution to tackle this.

There needs to be a move away from a linear model of “take, make, waste” (Source: Ellen MacArthur Foundation (2019)) to a circular economy which is designed to benefit businesses, society, and the environment. Finding more efficient and effective manufacturing processes, reusing and, perhaps most importantly, recycling materials means that the lifecycle extends, so less resources are needed which leads to less waste.

The Council can support a circular economy in the following ways:

- Awareness and engagement around waste and recycling
- Improve the quality of the materials sent for recycling
- Purchase goods and services that are more aligned to the circular economy



### Strategic aims

The high level strategic aims for addressing issues relating to the Natural Environment over the next five years are:

- Identify opportunities to enhance biodiversity across the Borough.
- Maximise opportunities through Biodiversity Net Gain.
- To establish a sequestration value for the Council's natural assets using an appropriate methodology.
- To continue to work with relevant stakeholders in order to bring about improvements in local air quality.

The natural environment plays an important role in mitigating climate change. Nature based solutions such as appropriate tree and soil management remove and store carbon dioxide from the atmosphere, all whilst releasing oxygen back

into the air. These enhance the environment both economically and socially, as well as providing ways for people and wildlife to adapt to the stresses of climate change.

The Council is committed to protecting and improving the natural environment, ensuring efficient and sensitive use of land for all our needs. Through balanced management practices the Council, will enhance carbon sequestration and create climate resilience to support the natural environment for future generations.

### Blue and green infrastructure

Green infrastructure is a network of multi-functional green space (both urban and rural) delivering quality of life and environmental benefits for communities.

Green infrastructure is not simply an alternative description for conventional open space. It includes parks, open spaces, playing fields, woodlands – as well as street trees, allotments, private gardens, green roofs and walls, sustainable drainage systems (SuDS) and soils. *(Source: Town and Country Planning Association (2023))*

Blue infrastructure includes rivers, streams, canals and other water bodies.

Blue-green infrastructure is important as a climate change mitigation and adaptation measure. Not only does it support biodiversity by linking networks together but it also creates both economic and social benefits for the wider community to enjoy.

Maintaining, improving and enhancing these pathways involves a partnership approach across a number of agencies and the Council will continue to explore opportunities to expand this provision across the Borough.

### Tree planting

As the climate crisis emergency deepens, the perception and awareness of the importance and dependence on trees continues to grow. Trees are excellent at sequestering (storing) carbon, locking this away for many years. It is imperative that the Council has robust mechanisms in place for the management of existing trees and looks at ways to increase canopy cover in the future. This will be achieved through a number of measures, including habitat management strategies and working with a variety of stakeholders.

### Natural adaption and mitigation

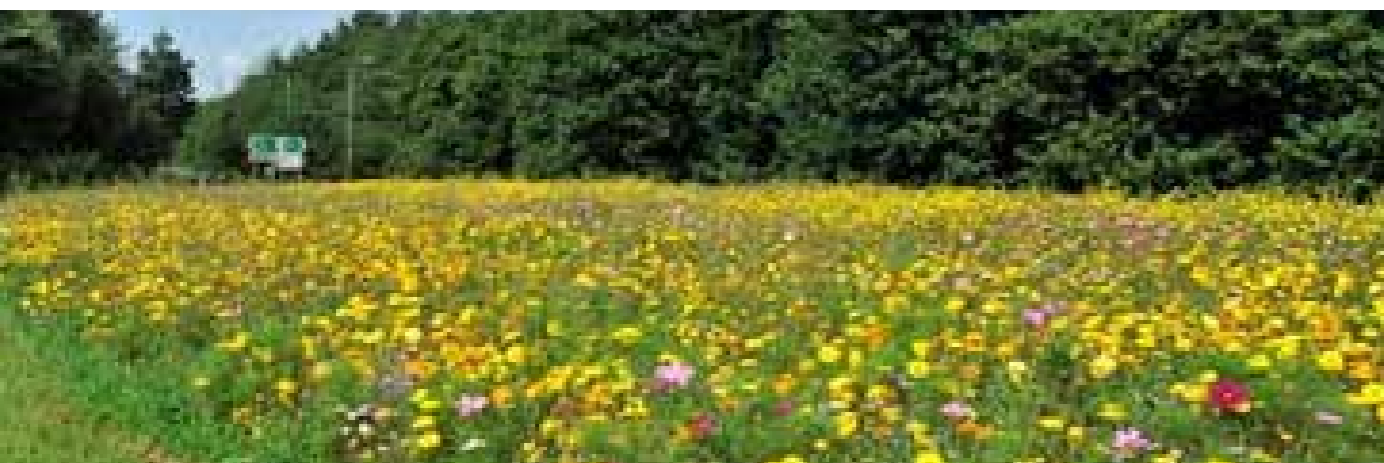
Increasing levels of carbon dioxide in the atmosphere makes changes to the earth's climate inevitable. Broxtowe Borough Council is working to understand and manage these changing climate risks, to ensure that assets, services and infrastructure continue to function appropriately and that the Borough becomes more resilient to extreme climate events such as flooding, drought and heatwaves.

### Ecological emergency

The ecological balance of our planet is in a critical state. Natural habitats and the wildlife it supports



# Natural Environment





are under threat due to the effects of habitat loss and climate change. The Council is taking active steps to protect, manage, mitigate and enhance ecological systems across the borough. To support this, the Council will work with key stakeholders to consider options in which best to respond to the ecological emergency, developing comprehensive and effective plans.

## Biodiversity

Biodiversity is essential for supporting life on Earth. Without it, animals, plants and micro organisms, would not have the healthy ecosystems that are required to “clean our water, purify our air, maintain our soil, regulate the climate, recycle nutrients and provide us with food” (Wilson: 2010)

The Borough of Broxtowe contains a diverse range of habitats, many of which are owned and/or managed by the Council and a variety of other stakeholders including Nottinghamshire County Council and Nottinghamshire Wildlife Trust.

The most significant areas for wildlife within the Borough are the Erewash and Trent Valleys. They provide valuable habitat opportunities for wetland bird species, water voles, otters and crayfish. The River Erewash feeds into Attenborough Nature Reserve, which is an important Site of Special Scientific Interest (SSSI) managed by Nottinghamshire Wildlife Trust.

Within the Borough there are also a number of urban habitats providing havens for wildlife. These include gardens, churchyards, allotments, verges,



school grounds and railway sidings. Many of these areas are post-industrial, brownfield sites supporting a rich and diverse ecosystem.

The Council will be looking for opportunities to increase biodiversity within the Borough by changing land management regimes and working with partner organisations.

## Carbon sequestration

Carbon sequestration is the process by which carbon dioxide is captured and stored. Sequestration can occur either biologically (trees,

soil etc.), or technologically (where carbon is captured and stored underground in appropriate geological formations).

For the purpose of this strategy, carbon sequestration will focus on the biological. The science and understanding around how different habitats sequester and store carbon is still developing, but it is clear that our green / blue infrastructure will play a significant part in achieving both carbon neutrality and net zero.

The Council is currently mapping sequestration values for the Council's green assets and will

formulate a carbon sequestration value and methodology which could potentially support the Council's climate change commitments.

## Air quality

Air pollution is generally defined as any type of particulate (dust) or gaseous substance (for example Oxides of Nitrogen) that is emitted into the atmosphere either through the combustion of fuels such as coal, oil, gas, petrol, diesel or the burning of wood / natural gas from domestic central heating boilers or power stations. When

these fuels are combusted, particulates are emitted into the atmosphere and they affect the air quality within the United Kingdom (UK).

Poor air quality can affect people's health on a daily basis and can result in premature death. Therefore, it is imperative that poor air quality is recognised as a public health issue and that continual measures are taken to improve the air quality even if the air quality objectives in the UK are being met.

The two main types of air pollution within the UK are Nitrogen Dioxide (NO2) and Particulate Matter

(PM10 and PM2.5). The main air quality issue within the Borough arises from the M1 and the A52 roads. There is one Air Quality Management Area (AQMA) remaining in the Borough and this is located in Trowell. The Council monitors the concentration levels within the Borough and have also devised and introduced measures to improve the air quality within the Borough, which are detailed in other programme themes in the strategy.





## Strategic aims

The high level strategic aims for addressing issues relating to communities over the next five years are:

- Support Town / Parish Councils and local community groups to take climate action
- Formulate appropriate climate adaptation strategies to support Health and Wellbeing
- Develop a green social prescribing model in Broxtowe.
- Reduce the supply chain emissions of Council events.

Local communities have a significant role to play in helping to mitigate the worst impacts of climate change. Communities encourage people to work together to take actions which:

- reduce greenhouse gas emissions
- enhance nature based solutions increasing the amount of potential carbon capture
- build resilience and encourage adaptation to climate change

The Council will look to support all appropriate stakeholder groups by:

- Supporting the development of local plans
- Making local communities aware of any potential funding opportunities
- Ensure communities have an aligned approach to the Council's own climate change commitments

## Town/Parish Council's and local community groups

Parish and Town Councils along with local community groups operate at the closest level to neighbourhoods, which enables them to take the lead to inspire local residents to take action. In doing so they can be a force to drive positive behaviour helping address the Climate Emergency.

Moving forward, the Council needs to work more closely with Town and Parish Councils and other local stakeholders, so that they can:

- Align to the Council's carbon neutral and net zero ambitions.
- Understand what action or change is necessary and help support this.

## Health and wellbeing

Climate Change may affect our health and wellbeing through the impacts of extreme weather events, declining air quality, threats to food and water quality and the impact that this will have on mental health.



Many people are now being forced to deal with the impacts of climate change and this can have an impact on their emotions and the way that they feel. This is Eco-anxiety and it is defined as “a chronic fear of environmental doom, a worry for what might happen if the world does not take action to avert disaster in time.” (Wright S and Oserloff E (2022)). On the whole, younger people are generally experiencing significant levels of eco-anxiety, “as they see the window to fix the planetary emergency closing, but often feel powerless to enact meaningful change” (Wright S and Oserloff E (2022)).

The Council will develop a Green Social Prescribing model for the Borough which will enable residents to engage in nature-based interventions and activities to improve their mental health.

Risks to human health are also increasing due to climate change. These include:

- Extreme heat causing exhaustion and heatstroke.
- Increased Asthma cases due to extreme heat reactions to air pollutants.
- Increases in temperatures alters the spread of diseases.
- Health impacts from other extreme weather events such as droughts, wildfires and storms (Ashworth J (2022)).

The Council will formulate appropriate adaptation approaches for its own operations, e.g. earlier start times for its operational employee's, so they are avoiding extreme heat weather events.




**THEME NINE**

# Business and Supply Chain

## Strategic aims

The high level strategic aims for climate change addressing issues relating to **Business and Supply Chain** over the next five years are:

- Establish a baseline for Scope 3 supply chain emissions using the Green House Gas protocol.
- Support businesses and skill building that supports green economic interventions.
- Embed sustainable purchasing practices across the Council, raising awareness and promoting best practice.
- Work with suppliers to minimise or reduce climate change impacts for example reduction of packaging, reduce transport miles.



Local businesses play a key part in reducing emissions in the Borough and helping to drive behaviour change. The Council will work with businesses to support their efforts to be more sustainable as well as focus on its own supply chain to make environmental considerations a key part of procurement.

## Sustainability support for local businesses

There are approximately 5,846 businesses within Broxtowe Borough. Analysis from the Office for National Statistics (ONS) indicates that almost all businesses with the Borough are categorised as SMEs (where employee numbers are 249 or less), with 84% being micro businesses (employing nine people or less).

Businesses continue to feel the economic effects of rising energy bills, but there is also the challenge of prioritising sustainability, especially as the impact of climate change is being felt. The Council, together with local partners (for example both Nottinghamshire universities) will work together to provide small businesses with resources, access to events and support to help them on their carbon reduction journey and align with the Council's carbon neutral ambition.

The Council will also work with businesses to identify opportunities to support the creation of green jobs and skills within the local area.



## Sustainability and procurement

It is widely acknowledged that the purchasing of goods and services has a significant impact on the environment, society and the economy. The Green House Gas Protocol defines Scope 3 emissions as "all indirect emissions that occur in the value chain of the reporting company, including both upstream and downstream" and this includes the supply chain.

In order for the Council to work towards any net zero commitment it must first establish its Scope 3 emissions and this will include the supply chain.

For most organisations the emissions in the supply chain, (attributed to bought goods and services) are the organisations most significant contributor to its carbon footprint. Once a baseline has been established, the Council will work with suppliers to reduce carbon emissions on the goods and services procured.





# Communications

**Strategic aims**  
 The high level strategic aims for addressing climate change issues relating to communications over the next five years are:

- To develop and deliver a comprehensive climate change communications plan.
- To achieve Carbon Literacy accreditation ‘Silver’ by March 2025.
- Increase awareness amongst stakeholders (residents, businesses, employees etc.) of climate change and the positive changes that can be made to help mitigate the worst impacts.

Well-considered and designed communication activities are key components for stakeholder engagement. This programme theme will support the various project strands in terms of raising the profile and awareness of the climate agenda, promoting best practice and driving positive behaviour change.

## Employee and Member training and engagement

Embedding sustainability across the Council is key in being able to support the commitment of becoming carbon neutral by 2027. A crucial driver for this is employee and Member awareness.

Employees and Members need to be aware of how the authority will be impacted by climate change, the practical actions needed to reduce emissions and the significant changes needed to incorporate a transition towards a net zero culture.



To ensure that climate change is embedded across the authority, the following steps will be undertaken:

- Include information about the Council’s carbon footprint in the annual performance review
- Include climate change as part of the induction process for new starters
- Ensure that all employee’s are aware of the climate change impacts related to their department
- Ensure that all Members are briefed and have regular climate change updates
- Creation of a climate change e-learning package for all employee’s and Members to complete.
- Creation of climate change champions across the authority
- Work towards becoming a carbon literate organisation

## Behaviour change

By using behavioural science techniques, we can ‘nudge’ stakeholders to change their behaviour and reduce their carbon footprint.

The EAST framework sets out an approach for this:

- Easy – making smarter choices easy to make
- Attractive – presenting benefits in a way that maximises their perceived value
- Social – harnessing ‘peer pressure’ by showing the desired behaviours are supported by others
- Timely – ensuring messages are received when people are most likely to be receptive

Our audience will also be broken down into three categories to help us better target our messages and make them more effective:

1. Already engaged - Promote and reward behaviour and encourage them to support others.

2. Willingness to engage but need support - Ensure information and support is available to help them change their behaviour and celebrate their success when they do.
3. Not engaged and unlikely to engage - Understand the reasons why they aren’t engaged to determine what action could be taken to support them.

Using a variety of tools including the Green Rewards platform, internal stakeholders will work together to deliver a climate change communications plan, which aims to drive positive behaviour change and will support external stakeholders in undertaking sustainable actions which will in turn lower their carbon footprint.

## Green events

Our Green Festivals are events designed to help educate, encourage and support local people to make more sustainable choices. They are a fantastic way for us to find out how they can contribute towards the climate change agenda helping to mitigate the worst impacts.

In 2022 there were four festivals covering each of Broxtowe Borough’s town centres (Eastwood, Kimberley, Stapleford and Beeston). The events were interactive and families were able to participate in a variety of environmentally themed activities.

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Following on from their success, the aim is to continue to develop these festivals across the borough, growing the engagement and reach.





## Section eight Opportunities and Benefits

The Council is in a key position to be a trend setter with regards climate change and engage and influence behaviour across a large audience. This position provides many opportunities and benefits to:

- Deliver and promote positive action on climate action
- Drive positive environmental behaviour change
- Positive engagement with internal and external stakeholders.
- Facilitate the creation of green jobs and support the local economy
- Efficiency savings
- Improve in health and wellbeing
- Improvements in air quality
- Improved public transport and active travel routes across the Borough
- Development of Members / employees skills and knowledge base
- Reduction in fuel poverty
- Mitigation against the worst impacts of climate change leading to increased resilience and therefore service improvement.
- Increase in biodiversity levels across the Borough
- Opportunities to link or align with other key strategies

## Section nine Risks and Challenges

There are many risks and challenges that will be faced along that journey to carbon neutrality and net zero. However, these will need to be addressed and overcome if the Council's commitments are to be achieved. Some of the main risks and challenges are:

- Build internal expertise to deliver on the Climate Change Strategy
- Develop and implement comprehensive communications plan.
- Higher cost of any potential sustainable technologies / methodologies.
- Look for opportunities to identify additional land for procurement, work with landowners and other stakeholders.
- Work to build funding requirements into the Council's medium term financial plan (MTFS) limited scope to commit the Council's own financial resources.
- Ensure arrangements for data capture is included in the earlier stages of project development.
- Availability of sustainable goods and services.



## Glossary

**ACS** - Approved Contractor Scheme

**BEIS** – Department for Energy and Industrial Strategy. (Government department).

**Biodiversity**- variety of plant and animal life in a particular habitat or ecosystem

**BNG** – Biodiversity Net Gain It is a way of making sure land used for construction is left in a better state than it was before development

**Carbon budget** - the amount of carbon dioxide permitted to be emitted over a certain period of time, which would allow global warming to be limited to no more than 1.5°C

**Carbon Neutral** – Balance of carbon emissions released against carbon emissions captured

**Carbon Sequestration** - is the process by which a carbon sink, such as forestry, reduces the amount of greenhouse gases in the atmosphere

**Circular Economy** – A production and consumption system whereby materials are kept within a closed loop (there is a reliance on reduce, reuse and recycling rather than dispose)

**Climate Adaptation** – A change to process that means that living things are able to cope with a new or changing environment

**Climate Resilience** – The ability to adapt to change

**CO<sub>2</sub>e** – There are six greenhouse gases (GHG) as set out in the Kyoto protocol. These gases are converted to CO<sub>2</sub>e and are referred to as 'Carbon emissions'

**D2N2** - Local Enterprise Partnership for Derby, Derbyshire, Nottingham and Nottinghamshire

**DEC** – Display Energy Certificates – show the energy performance of a building

**EPC** - (Energy Performance Certificate) is a certificate that shows how energy-efficient a property is.

**EV** – Electric Vehicle

**GHG** – Greenhouse Gas (Gases released in the earth's atmosphere that trap heat)

**LAD** – Local Authority Delivery (Funding to improve the energy efficiency performance of low income and low energy efficiency homes)

**Net Carbon Zero** - Cutting greenhouse gas emissions to as close to zero as possible, with any remaining emissions captured.

**NOx**- Nitrogen oxides are gases that are formed during the combustion of fossil fuels

**NPPF** – National Planning Policy Framework

**PV** – Photovoltaics (Solar Panels – the conversion of light into electricity)

**Science based targets** – these targets aim to limit global warming to no more than 1.5°C

**Scope 1 emissions** - Direct emissions from using fossil fuels for heating and for fleet vehicles.

**Scope 2 emissions** - Indirect emissions from purchased electricity

**Scope 3 emissions** - Emissions from sources that are outside an organisation's direct control but that are associated with its activities, for example waste, water and purchased goods.

**SHDF** – Social Housing Decarbonisation Fund

**SPD** – Supplementary Planning Document (used in planning)

**SUD's** - Sustainable Drainage Systems - a range of sustainable measures for surface water management which reduce the amount, flow or rate of surface water discharge into sewers.



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Broxtowe  
Borough  
COUNCIL

# Climate Change and Green Futures ACTION PLAN





Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
1.1	Develop further strategic actions following public consultation of the refreshed Climate Change and Green Futures programme.	Undertake a public consultation of the Climate Change and Green Futures Programme in summer of 2023.	Interim Head of Environment	Own Operation		£
1.2	Measure, monitor and analyse the Council's carbon emission data. Information will then be used to ascertain the level of CO <sub>2</sub> e saved from actions undertaken through the Climate Change and Green Futures Carbon Management Plan (CMP).	Produce a comprehensive bi-annual carbon emission report, covering both the Council's own operation and Borough emissions.	Interim Head of Environment	Own Operation		£
1.3	Establish a net zero target for the Council's own operations.	Benchmark Scope 3 emissions by March 2024. Set science based targets by March 2024 for a net zero trajectory to 2040 (in line with 1.5OC reduction).  By March 2024 set a commitment date for working towards net zero.	Interim Head of Environment	Own Operation		£
1.4	Utilise the Climate Change and Green Futures communications budget.	Put forward a revenue development request for a climate change communications budget for 2023/24.	Interim Head of Environment	Own Operation		£
1.5	Understand and baseline the carbon emissions associated with the Council's investments and pensions.	Incorporate investments and pensions within the Scope 3 baseline.	Head of Finance Services	Own Operation		£





Low £    Medium ££    High £££






Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
1.6	Refresh the current Climate Change and Green Futures programme board structure so that it reflects the refreshed strategy.	Undertake a revision of the Climate Change and Green Futures programme board to ensure there is appropriate representation from key stakeholders by March 2023.	Executive Director/ Head of Environment	Influence / Own Operation		£
1.7	Identify external funding opportunities.	Identify external funding opportunities. Collate a tracker to record possible avenues.	Interim Head of Environment / Relevant Programme theme leads	Influence/ Own Operation		£
1.8	Assess the carbon emission impact of home / hybrid working.	Undertake staff survey to assess staff working pattern as compared to pre-covid model.  Calculate carbon emission impact of a member of staff working from home (Scope 3 emissions).	Waste and Climate Change Manager/ Head of HR	Influence / Own Operation		£
1.9	Formulate appropriate climate adaptation and climate resilience action plans.	Identify appropriate climate adaptation and climate resilience actions necessary to support both the Council's own operations and that of the Borough.	Interim Head of Environment	Influence/ Own Operation		£
1.10	Baseline all carbon Scopes for Liberty Leisure and work with them to establish a baseline and targets.	Baseline all carbon Scopes for Liberty Leisure by March 2024.	Interim Head of Environment / Managing Director of Liberty Leisure Ltd.	Influence		£
1.11	Embed climate change considerations into the decision making process.	Include a commentary section on the impacts of climate change for all committee reports.	Head of Democratic Services / Interim Head of Environment	Influence		£



Programme Theme:





 **Transport and Travel**

Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
2.1	Investigate the financial impact alongside other considerations, regarding the introduction of appropriate infrastructure to support the electrification of the Council's fleet and growth in domestic use electric vehicles.	Undertake a feasibility study to consider a move to electrification or hydrogen.	Interim Head of Environment / Transport and Stores Manager	Own Operation		£££
2.2	Consider practicality and economics, to the adoption of new technologies for the Council's own fleet including potential electric and hydrogen purchases.	Undertake a feasibility study to ascertain the capital funding needed to electrify the fleet.	Transport and Stores Manager	Own Operation		£££
2.3	Develop a replacement programme for fossil fuelled small tools (for example hedge trimmers, blowers, and strimmers). Where practical and economic, with electric powered units.	Identify any tools for replacement in 2023/24.	Transport and Stores Manager / Parks and Open Spaces Manager	Own Operation		££
2.4	Create a driver training programme utilising data from the on board vehicle monitoring IT System (for example, harsh braking, excessive speeding and harsh cornering).	Deliver an improved driver training programme addressing safety, fuel economy, extended vehicle life and reduced emissions to all fleet drivers by March 2024.	Transport and Stores Manager	Own Operation		£

Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
2.5	Install and utilise the D2N2 funded 2 x 7kw chargers in Kimberley depot.	Install chargers and ensure that this is communicated across teams with an electric vehicle.	Executive Director /	Own Operation		££
2.6	Refresh business case for fleet fuel (where possible) for a transition to Hydrotreated vegetable oil (HVO) model.	Assess the impact of current fuel price increases and undertake a cost benefit analysis.  Submit report to Cabinet – July 2023.	Interim Head of Environment / Relevant Programme theme leads	Own Operation		£££
2.7	Review current vehicle lifecycle against costs and present a business case for the Council to consider.	Comparison of maintenance, repair and running costs over the current 12 year lifecycle.	Transport and Stores Manager	Own Operation		£££
2.8	Using available data, produce a report on vehicle types registered in the Borough along with scenarios indicating the behavioural change necessary to help achieve alignment with UK net zero by 2050.	Create a central monitoring system for tracking data with regards to ULEV purchases within the Borough.	Transport and Stores Manager	Influence		£
2.9	Using the current employee 'home to work' mileage as a baseline, repeat the survey annually to inform the approach moving forward and the overarching communications programme.	Data spreadsheet system implemented and communication and promotion of 2022/23 results.	HR Manger	Influence		£

Low  £    Medium  ££    High  £££



Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
2.10	Promote the Cycle to Work Scheme.	Log employee journeys by bike (also consider capturing other active transport measures).	HR Manger / Communications, Cultural and Civic Services Manager	Influence		£
2.11	Promote the car lease scheme regularly within the 'Employee Briefing'. Use agile working arrangements to reduce the impact that employees travelling to work has on the environment.	Ensure that employees are aware of the scheme and that this is tested in the 2024/25 employee survey.	HR Manger / Communications, Cultural and Civic Services Manager	Influence		£
2.12	Promote sustainable travel options to employees and residents.	Decrease the amount of business travel carbon emissions by 5% by March 2024.  Create an EV charging strategy for the Council by March.  Produce a comprehensive sustainable travel guide for residents in the Borough by March 2024.	Interim Head of Environment / HR Manager / Communications, Cultural and Civic Services Manager	Own Operation / Influence		£
2.13	Create an Electric Vehicle (EV) charging strategy for the Borough.	Research resident EV usage across the Borough.  Investigate and highlight potential EV charging points across the Borough.	Interim Head of Environment/ Transport and Stores Manager	Own Operation/ Influence		£££






Low  £    Medium  ££    High  £££










Programme Theme:


**Energy and Water**

Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
3.1	Develop a decarbonisation plan and road map for Broxtowe Borough Council assets.	Undertake a baseline review of four of the Council's key commercial assets and produce a decarbonisation plan for each by March 2024.	Head of Asset Management/Interim Head of Environment	Own Operation		£££
3.2	Install water efficient taps in all Council owned buildings to reduce water consumption and cost.	Produce a programme of replacement.	Head of Asset Management	Own Operation		££
3.3	Explore the possibility of grey water harvesting.	Undertake an initial grey water harvesting feasibility study for two of the Council's assets.	Head of Asset Management	Own Operation		££
3.4	Investigate further opportunities for the installation of solar panels on Council buildings. For example, Kimberley Depot.	Baseline current renewable energy generation. This action will be considered under 3.1.	Head of Asset Management	Own Operation		£££
3.5	Investigate the energy management arrangements at the Crematorium in order to identify opportunities to redirect excess energy.	This action will be considered under 3.1	Head of Asset Management	Own Operation		£££


Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
3.6	Develop a programme for all appliances in social spaces (For example, kitchens and laundry rooms) at Independent Living Schemes, for energy efficient ones.	Draft a five-year replacement programme and begin to action.	Head of Housing	Own Operation		££
3.7	Ensure all Council stock has a current Energy Performance Certificate (EPC).	All Housing Revenue Account (HRA) properties to have an EPC in place.  Highlight fuel poverty and easy practical solutions at five Council led events.  Provide five training sessions to residents and employee's at Independent Living Schemes.	Head of Housing	Own Operation		£
3.8	Collaborate to establish partnerships with educational establishments to develop sustainability knowledge.	Create partnership links with both Nottingham Universities.	Interim Head of Environment	Influence		£
3.9	Action the smart meter installation programme.	Install smart meters across Council assets and create a monitoring system to track energy usage.	Head of Asset Management	Own Operation		££
3.10	Investigate options for land purchase for potential renewable sites.	Identify suitable land that could be acquired for a possible renewable energy development.	Head of Asset Management	Own Operation		£££







Low  £    Medium  ££    High  £££



Programme Theme:


**Built Environment**

Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
4.1	Formulate an appropriate response to the outcome of the stock condition survey.	Review stock condition survey and formulate an action plan to include actions for climate change.	Capital Works Manager	Own Operation		£
4.2	Install external wall insulation to the remaining 94 solid wall properties – this requires careful assessment as most of them are hard to treat as they are in Eastwood's conservation area.	Following the successful Social Housing Decarbonisation Fund (SHDF) bid, works will commence on identified properties late in 2023.	Capital Works Manager	Own Operation		£££
4.3	Act on the recommendations raised on the Stock Condition Survey for housing stock and install external wall insulation to 53 steel-framed and solid wall properties.	Project to be scoped by August 2023.	Capital Works Manager	Own Operation		£££
4.4	Consider how best to address the 30 properties remaining with less-efficient gas boilers and implement the solutions.	Project to be scoped by August 2023.	Capital Works Manager	Own Operation		£££
4.5	Develop a programme and appropriate solutions to address the 285 Council house properties with inefficient all-electric heating systems.	Project to be scoped by August 2023.	Capital Works Manager	Own Operation		£££

Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
4.6	Consider retrofitting Council house properties with solar panels.	Undertake a baseline review to identify suitable premises.	Capital Works Manager	Own Operation		£££
4.7	Establish the current position on loft insulation for housing stock June 2023. Set target to improve loft insulation up till 2027.	Identify properties that require loft insulation. Develop a programme of installation for those properties that require it.	Capital Works Manager	Own Operation		££
4.8	Research sustainable methods of construction for new build Council houses.	On-going and will be developed as new technologies and innovations are developed.	Head of Asset Management	Influence		£
4.9	Research alternatives to conventional heating systems and report findings.	Formulate a programme of activity up until 2027.	Capital Works Manager	Influence		£
4.10	Develop a programme that considers the replacement of gas boilers in Council house properties for renewable/sustainable fuels.	Determine a replacement strategy up until 2027.	Capital Works Manager	Influence		£££
4.11	Ensure that Borough residents are aware and signposted to appropriate retrofit funding for energy efficient measures for their homes.	Establish retrofit targets for private households in the Borough.	Capital Works Manager / Interim Head of Environment	Influence		£

Low  £    Medium  ££    High  £££



Programme Theme:

**Core Strategy and Planning**

Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
5.1	Include proposals relating to energy efficiency and Climate Change as part of ongoing work on implementing Policy 17 of the Part 2 Local Plan, 'Place making, design and amenity'.	Create a climate change SPD which will provide guidance in respect of energy efficiency and Sustainable Drainage Systems (SuDs) within the planning process by March 2024.	Head of Planning and Economic Development	Influence		£
5.2	Gather evidence, including viability evidence, to inform Aligned Core Strategy (ACS) policies that will enforce/expand on National Planning Policy Framework (NPPF) requirements regarding energy efficiency and climate change.	Working as part of the greater Nottingham strategic plan, produce a specific climate change policy by March 2024. This policy will seek to include higher levels of sustainability than previous policy documents.	Head of Planning and Economic Development	Influence		£
5.3	Develop further strategic actions as part of the Core Strategy/Planning project strand delivery.	Incorporate climate change as a core thread through work on the strategic plan. This will include measures to encourage active travel, 20 minute neighbourhoods and low carbon thinking.	Head of Planning and Economic Development	Influence		£
5.4	Ensure that all Neighbourhood Plans include reference to policies regarding climate change adaptation and mitigation.	Work with the relevant Neighbourhood Plan bodies and forums to encourage climate change policies where possible.	Head of Planning and Economic Development	Influence		£






Low £    Medium ££    High £££







Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
5.5	Engaging with and ensuring the adoption of a Toton Masterplan which contains innovative proposals for an advanced model of living and working which is highly sustainable.	Continue working with the Development Corporation and other stakeholders to advance documents relating to the wider masterplan of the site, pushing sustainability models where possible.	Head of Planning and Economic Development	Influence		£
5.6	Complete the review of the Aligned Core Strategy.	Complete the review by March 2024.	Head of Planning and Economic Development	Influence		£
5.7	Influence behavioural change so that sustainable building design is considered during the planning process.	Ongoing - linked to the production of the SPD and policies in the strategic plan.	Head of Planning and Economic Development	Influence		£
5.8	Determine the number of households using renewable generation technology.	Establish a monitoring system that will track retrofit installations from funding opportunities.	Head of Asset Management / Interim Head of Environment	Influence		£
5.9	Assess the impact of the Environment Act and the effect this will have on planning applications and Biodiversity Net Gain (BNG).	Undertake an initial assessment by September 2023.	Head of Planning and Economic Development	Influence		£



Programme Theme:




 **Recycling and Resources**

Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
6.1	Review of the missed bin policy and procedure.	Review the missed bin policy and take the findings to Cabinet for decision by March 2024.	Interim Head of Environment	Own Operation		£
6.2	Assess the impact of current housing growth on refuse collections and investigate possible efficiency solutions.	Ascertain housing growth levels in the Borough for the next 5 years and map the potential impact on current refuse rounds.	Interim Head of Environment	Own Operation		£££
6.3	Investigate reuse and recycling alternatives for Council IT equipment.	Report on possible solutions or systems (to include laptops / screens / mobile phones) by March 2024.	ICT & Business Transformation Manager	Own Operation		£
6.4	Develop further video and educational material for schools, businesses, households, and employees in order to encourage behavioural change in regards to recycling.	Produce 2 videos annually.	Interim Head of Environment	Influence		£
6.5	Work in partnership with charities, for example on Clean and Green Bulky Waste days, to promote the reuse of items as an alternative to disposal.	Work with five reuse partners annually.	Interim Head of Environment	Influence		££

Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
6.6	Assess the impact that the Environment Act will have on current refuse and recycling operational provision.	Undertake a desktop study of weekly kerbside food collection.	Interim Head of Environment	Influence		£££
6.7	Increase the quantity of recycling collected to 50+% by 2027.	Increase recycling rates levels by 2% annually from a 2022/23 baseline.	Interim Head of Environment	Influence		£
6.8	Reduce recycling contamination to 5% by 2027.	Reduce contamination levels by 2.5% by March 2024.	Interim Head of Environment	Influence		£
6.9	Promote a Circular Economy approach to waste management to Broxtowe residents and businesses in line with the Environment Act.	Develop a schools' educational programme and undertake in 10 schools across the Borough by March 2024.  Prepare a waste and recycling tool kit for local businesses and deliver to 10 Broxtowe Borough Council trade waste customers by March 2024.	Interim Head of Environment	Influence		£
6.10	Increase the number of face-to-face engagement events with residents.	Increase the number of engagements by 5%, against the previous year.	Interim Head of Environment	Influence		£
6.11	Increased engagement and promotion with 'mend and make do' type partners to reduce the disposal of items.	Work with 5 reuse partners in 2023/2024. Have a presence at each Green Festival of at least one 'make and mend' type stall holder.	Interim Head of Environment	Influence		£

Low  £    Medium  ££    High  £££



Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
6.12	Increase 'waste and recycling' carbon avoidance reporting on Green Rewards.	Broxtowe residents to have avoided emitting 100 tonnes of carbon since the launch of the platform in October 2021. Increase registrations to 3,000, by March 2024.	Interim Head of Environment	Influence		££
6.13	Investigate the use of carbon impact targets over weight based data for refuse and recycling.	Establish carbon impact targets for refuse and recycling. To report these alongside weight data.	Interim Head of Environment	Influence		£
6.14	Create a resident behaviour change programme for high carbon waste items from disposal (Food, Textiles [Fast fashion], batteries and plastics).	Gather data on high carbon waste items. Establish a communications plan by March 2023.	Communications, Cultural and Civic Services Manager / Interim Head of Environment	Influence		£





Low  £    Medium  ££    High  £££





Programme Theme:








**Natural Environment**

Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
7.1	Identify opportunities to extend the 'no mow' sites located across the Borough.	Change the mowing regime on two areas within the Council ownership.	Parks and Open Spaces Manager	Own Operation		£
7.2	Increase the number of tree planting schemes across the Borough.	Plant 3,000 trees in 2023/24, 10% of which will be drought tolerant. Provide 800 trees for the free tree scheme for 2023/24. Consider other sustainable plant options for residents who do not have enough room in their garden for a tree. Increase urban tree canopy to reduce urban heat islands.	Parks and Open Spaces Manager	Own Operation		£££
7.3	Calculate potential carbon sequestration value of the BBC owned land and establish an appropriate methodology for measurement. To identify improvements and action them.	Establish baseline and prepare a report (undertaken annually). Increase tree canopy cover by 1% per annum. Convert 1% of amenity grassland to species rich grassland per annum.	Parks and Open Spaces Manager	Own Operation		££
7.4	Develop the Borough's Blue Infrastructure with key stakeholders.	Stakeholder meetings to be arranged to deliver the actions within the Blue / Green Infrastructure Strategy.	Parks and Open Spaces Manager	Influence		£



Low  £    Medium  ££    High  £££

Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
7.5	Enhance wildlife corridors across the Borough as identified in the Blue / Green Infrastructure Strategy.	Improve existing meadow grassland at Brinsley Headstocks. Create 2 new ground flora habitats within Council owned woodland sites. Revised the Council's Tree Strategy. Identify one area and install a pocket orchard. Plant 100 linear meters of hedgerow. Identify and create 1 new pocket park. Identify and create one new woodland. Engage with community groups to identify three woodland enhancement planting project. Identify potential wildlife refuge locations in the Borough. Work with landowners, Council departments and external organisations to identify opportunities to purchase land for tree planting and other environmental schemes.	Parks and Open Spaces Manager	Own Operation		££
7.6	Investigate the potential installation of either living walls (vertical gardens) or green roofs to Council assets, to absorb CO <sub>2</sub> and improve biodiversity.	Undertake a feasibility study, including a cost benefit analysis and identification of potential green roof and vertical garden.	Head of Asset Management / Parks and Open Spaces Manager	Own Operation		£



Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
7.7	Create allotment ambassadors to encourage and engage to drive positive behavioural change.	Create four allotment ambassadors.	Parks and Open Spaces Manager	Influence		££
7.8	Erect appropriate signage and information boards across the Borough's parks, explaining how and why the Council manages the environment.	Erect signage at all relevant Council sites.	Parks and Open Spaces Manager	Influence		£
7.9	Provide an annual air quality status report for the Borough which is fit for purpose.	Create an annual report.	Chief Environmental Health Officer	Influence		£
7.10	Monitor NO <sub>2</sub> levels at two locations in the Borough and continue to work with relevant partners in order to bring about improvements in local air quality.	Ongoing – air quality is monitored monthly and forms part of the annual status report on air quality.	Chief Environmental Health Officer	Influence		£
7.11	Organise and promote an annual BioBlitz to encourage and inform local residents on the importance of biodiversity.	Identify one site for the annual BioBlitz.	Parks and Open Spaces Manager	Influence		£
7.12	Identify areas of flood risk in the Borough and look at possible natural solutions.	Undertake a baseline survey of flood risk areas. Plant black poplars and re-wild the Erewash flood plain at Toton by March 2024.	Parks and Open Spaces Manager	Influence / Own Operation		££




Low  £    Medium  ££    High  £££




Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
7.13	Establish and deliver the woodland burial site identified at Chilwell, to enable eco burials within a woodland setting.	Once established, publicise and promote the new eco burial site.	Interim Head of Environment	Influence / Own Operation		££
7.14	Identify soil management practices that optimise soil carbon sequestration.	Ensure that any planting (wherever possible) for 2023/24 uses mulch.  Investigate the possibility of using fungus as a soil conditioner and to improve soil moisture levels. Undertake one pilot study, which will help to adapt and mitigate extreme weather conditions.	Parks and Open Spaces Manager	Influence / Own Operation		££



Programme Theme:


**Communities**

Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
8.1	Reduce the carbon footprint and improve the sustainability of Broxtowe Borough Council events.	<p>Audit the Council's existing events programme to agree the baseline data and methodology for measuring carbon usage moving forward.</p> <p>Develop a zero/low waste policy for Council events.</p> <p>Work with suppliers to reduce supply chain emissions.</p>	Communications, Cultural and Civic Services Manager / Interim Head of Environment	Own Operation		£
8.2	Support Town and Parish Council's to take climate action.	<p>Ensure that the climate change agenda is part of the annual Town and Parish forum.</p> <p>Develop a climate change tool kit for Town and Parish Council's (to include signposting for funding opportunities).</p>	Interim Head of Environment	Influence		£
8.3	Support community and voluntary sector groups to enable them to take action on climate change and their carbon footprint.	Agenda items at Primary Care Network Community Engagement Group meetings and Broxtowe Partnership meetings.	Interim Head of Environment	Influence		£

Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
8.4	Food education to reduce food waste.	<p>Raise awareness of healthy eating and promoting healthy weight management options through Your Health Your Way (YHYW). Advise on Best Before and Use by dates. How to know if food is safe to eat. How to store food safely?</p> <p>Deliver a Food Waste Action Week and support key messages around avoiding food waste.</p> <p>Support Stapleford Community Group to allow them to redistribute surplus food.</p>	Chief Communities Officer	Influence		£
8.5	Develop a Green Social Prescribing model in relation to health and wellbeing for the Borough.	Produce a draft model by March 2024.	Chief Communities Officer	Influence		£
8.6	Include climate change actions in the refresh of the Mental Health Action Plan.	Ensure that climate change actions are incorporated in the Mental Health Action Plan by March 2024.	Chief Communities Officer	Influence		£

Low  £    Medium  ££    High  £££



Programme Theme:

**Business and Supply Chain**

Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
9.1	Produce the Council's Sustainable Procurement Strategy.	Confirm the Council's commitment for a sustainable approach to the delivery of goods, services and works.  Create and include a sustainability weighting for the Council's tender evaluation process.	Head of Finance Services / Interim Head of Environment	Own Operation		£
9.2	Identify and work with suppliers that have significant carbon emissions associated with the products that the Council purchase.	Reduce Scope 3 carbon emissions by 5% after the first year of establishing its baseline.	Head of Finance Services / Interim Head of Environment	Own Operation		£
9.3	Create a climate change forum which would allow key stakeholders including businesses/educational establishments to share best environmental practice.	Establish a key stakeholder forum by March 2024.	Head of Planning and Economic Development / Interim Head of Environment	Influence		£
9.4	Support green jobs and skills growth within the Borough.	Work with partners to create green jobs and skills growth across the Borough.	Head of Planning and Economic Development / Head of Planning and Economic Development	Influence		£

Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
9.5	Review the Council's Service Level Agreements (SLA's) to include sustainability criteria.	Establish a working list of all SLA's to start work from by March 2024.	Heads of Service	Influence		£
9.6	Provide local providence/ low carbon hospitality for meetings/ events.	Establish a supplier list and a baseline criteria/set of standards to work from by March 2024.	Head of Administrative Services	Influence		£
9.7	Investigate a climate accreditation system for businesses. (Similar to a food hygiene rating).	Report on possible solutions or systems.	Interim Head of Environment	Influence		£

Low £    Medium ££    High £££



Programme Theme:

**Communication**

Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
10.1	Continue to enhance and develop the resident engagement platform (Green Rewards).	<p>Develop a programme of monthly communications and engagement activity to increase the number of Green Rewards users.</p> <p>Increase the number of people undertaking the 'four-minute shower' action by 5% on Green Rewards.</p> <p>Increase the amount of carbon avoided to 150 tonnes (from platform launch in October 2021).</p> <p>Increase the number of people undertaking the 'active travel' action by 5% on Green Rewards.</p> <p>Develop and launch an incentivised challenge to create a sense of competition and shared goal for example, double your recycling.</p>	Communications, Cultural and Civic Services Manager / Interim Head of Environment	Influence		£
10.2	Develop and deliver carbon literacy and sustainability training for all employees and Members.	<p>Develop and deliver a sustainability segment for the corporate induction.</p> <p>Develop an e-learning training package on climate change for employees.</p> <p>Become a carbon literate organisation (bronze level).</p>	Interim Head of Environment	Influence / Own Operation		£

Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
10.3	Identify local influencers, for example, bloggers, community groups, Facebook groups, to engage with the Council on climate change.	To broaden the Council's reach - 500 engagements.	Communications, Cultural and Civic Services Manager	Influence		£
10.4	Support successful delivery of other project strands through effective communications and engagement activity.	Improve the awareness of climate change by 5% (data will be gathered via the annual budget survey).	Communications, Cultural and Civic Services Manager	Influence		££
10.5	Develop the Green Festival format so that the reach and engagement levels to local residents is increased.	Undertake Green Festivals in the Borough, reaching an audience of over 1,000 residents by March 2024.	Communications, Cultural and Civic Services Manager / Interim Head of Environment	Influence		££
10.6	Continue to build on the 'Climate Change and Green Futures' brand to raise awareness of climate change.	5% increase in awareness on previous year as part of consultation work (corporate e.g. budget, employee survey or climate change specific surveys).	Communications, Cultural and Civic Services Manager / Interim Head of Environment	Influence		££
10.7	Develop a new tagline and set of key messages to ensure that our communications activity around climate change is consistent and effective.	Increase in service take up.	Communications, Cultural and Civic Services Manager	Influence		£

Low £    Medium ££    High £££



Ref	Action	Target for 2023/24	Responsible Officer	Influence/ Own Operation	Est. CO <sub>2</sub> e Saving	Cost
10.8	Develop the Environment email bulletin and other methods of communication to ensure that we are reaching and engaging with as many people as possible.	1,000 new subscribers to the email me service.  3% increase in the engagement rate compared to the previous year.	Communications, Cultural and Civic Services Manager / Interim Head of Environment	Influence		£
10.9	Produce videos on: • The Council's own operation carbon footprint. • The Borough's carbon footprint.	500 views (organic).	Communications, Cultural and Civic Services Manager	Influence		£