

 **OUTLINE**
CL  **MATE**
CHANGE
STRA  **ATEGY**

NET ZERO CARBON - VISION 2038

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“PROTECTING OUR FUTURE TOGETHER”

This report was prepared by the Environment Directorate of Wigan Council with support from wider internal services as well as external stakeholders.



FOREWORD

COUNCILLOR DAVID MOLYNEUX LEADER, WIGAN COUNCIL

Climate change is a very real and existing threat and is no longer an issue that we can afford to ignore. On 17th July 2019, Wigan Council acknowledged the climate and environmental crisis by declaring a climate emergency and since that time, has committed to achieving carbon neutrality by 2038 or sooner. Our Outline Climate Change Strategy sets out how we will work collaboratively, to protect our future together in the uncertain times ahead.

To achieve our target date of carbon neutrality, we need to radically rethink how we live, work and invest in the borough. The council cannot achieve the necessary measures needed to lower our greenhouse gas emissions alone. To do this, we have to work together effectively with our residents, communities, local businesses and partner organisations to ensure that we commit to a transition to a zero carbon Wigan Borough.

The climate is changing, and the science is clear. There is an urgent need to reduce our greenhouse gas emissions to limit global temperature rise to below 1.5°C to prevent irreversible impacts around the world and within our local area. We also need to prepare for a changing climate, ensuring we adapt to warmer wetter winters and hotter drier summers.

At the heart of our strategy is the people of our borough. Climate change is a long-lasting and universal problem that will impact all, regardless of age, gender, race or background. However, as with many other issues, climate change disproportionately impacts our most vulnerable residents and communities who already struggle with numerous other problems. It is the duty of local authorities to protect the security, welfare and wellbeing of those citizens who depend on us.

The young people of Wigan Borough will be significantly impacted by the changing climate we see now, and what is predicted for the future. They are inheriting a world that has been unfairly tarnished by heavy industry, an over-reliance on fossil fuels, and the greed of generations before them. We are the current stewards for the world they will inherit, and it is our duty to inspire, engage and encourage them, together with ourselves, towards sustainable and environmentally conscious lifestyles.

Addressing climate change creates towns and communities that can thrive, ensuring the prosperity and growth of Wigan

Borough and it's economy. Our corporate strategy The Deal 2030, outlined the desire of our residents to live in a cleaner, greener borough with environments and greenspaces they could be proud of. The vision for a climate resilient Wigan Borough. A borough that is green and well wooded, with a large stock of high quality zero carbon homes, sustainable buildings and public places that are resilient to the risks of flooding, extreme heat and cold. A borough that actively encourages walking and cycling as the main mode of transport, local food growing, minimising food waste and promoting clean renewable sources of energy. A borough that is focussed on the education and sustainable growth of our young people, the development of prosperous green jobs and vital support for businesses to transition to cost effective zero carbon technologies.

We recognise that achieving our vision will not be easy. For many, the climate and environmental issues are not a pressing priority, specifically within these current times surrounding the coronavirus. We all live our lives fuelled by entrenched, fossil-fuel dependent, consumption-based systems and these are elements that are out of the direct control of the Council. We also need action nationally from central government to support funding mechanisms to deliver large scale climate mitigation projects, strong regulations over large corporations and polluting industry as well as a large-scale modal shift to renewable energy. Regionally, Wigan Council has aligned with Greater Manchester's 5 Year Environment Plan and will continue to work closely with the Greater Manchester Combined Authorities as well as other neighbouring councils.

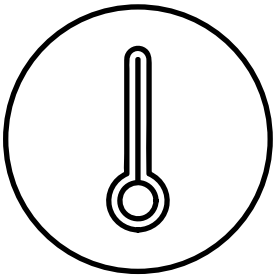
We must also look at this climate challenge as an opportunity, to address a multi-generational issue whilst also protecting citizens, reducing inequalities, improving health, creating more green spaces, ensuring access to clean air, as well as jobs and opportunities for every resident, business and community.

Our strategy outlines the commitment Wigan Council will make to prevent the worst impacts of climate change affecting the borough. But this does not mean that any one organisation or individual is solely responsible for the fight against climate change. We therefore call on you, as people who live, work, visit and invest in our borough, to join us in creating a Wigan Borough that is resilient to the impacts of climate change and work towards a zero carbon, sustainable future for all.

SECTION 1 : INTRODUCTION

SECTION 1

INTR DUCTION



1.1 OUR CLIMATE EMERGENCY



“Although climate change may appear a global issue dealt with by governments on a national scale, we all have a duty as individuals and communities, to inhabit this planet responsibly and sustainably, ensuring that future generations have access to the resources we have overconsumed. ”

The world's climate is changing drastically, with the Intergovernmental Panel on Climate Change stating that man-made influence is the driving force behind the most recent and dramatic changes in climate. If all emissions were stopped today, we would still see some level of warming across the globe. But that level of warming is dependent on what we do today.

Although climate change may appear a global issue dealt with by governments on a national scale, we all have a duty as individuals and communities, to inhabit this planet responsibly and sustainably, ensuring that future generations have access to the resources we have overconsumed. We face urgent and significant environmental challenges across our borough, and our environment is of particular importance to us, ensuring we have access to greenspaces, fresh air and plentiful supplies of clean water.

Climate change has been identified as the most substantial threat to our economy, public health, resources and infrastructure that humanity has ever seen. Acting now will ensure we are safeguarding the future, enabling us to secure the health and economic benefits from a cleaner environment, a green circular economy, healthier and more active lifestyles and decreased pressure on health and care systems.

It is essential that the future generation, the young people of our borough, have a

strong voice in this process, ensuring that they help influence and shape their own futures. It is imperative that we proactively engage with our local schools and colleges to encourage environmental awareness and responsibility promoting sustainable lifestyles for all.

As a council we have already undertaken a number of innovative and bold initiatives that are aimed at reducing our impact on the climate and reducing our borough's carbon emissions. We also recognise that limiting the harmful effects of climate change cannot be achieved by a single organisation and the effort requires changes to how we all live and work. Every resident has a role to play in securing a climate resilient future.

Wigan Council declared a Climate Emergency on 17th July 2019 in a bid to acknowledge the urgency surrounding this complex and vital issue. Wigan Council will display strong leadership and work collaboratively with communities, partners and organisations to ensure our Council reaches the target of net zero carbon by 2038, with a strong influence across Borough emissions. This plan sets out Wigan Council's ambition and a road map as to how we will tackle these challenges together, ensuring we take advantage of the opportunities that will emerge from early action on the climate emergency.



1.2 ROLE OF THE CLIMATE CHANGE STRATEGY



“This is a momentous task but waiting to act in ten years’ time is no longer an option. We need to meet our combined environmental responsibility, alongside securing our economic future and wellbeing.”

Wigan Council is taking the lead at local level and by creating this ambitious strategy, we can ensure that our residents, communities and businesses have the confidence to transform our borough into a climate resilient towns and communities. This strategy sets out high-level objectives in order to achieve a resilient and net zero carbon Wigan Council by 2038 or sooner.

Net zero carbon refers to achieving an overall balance between emissions produced and emissions taken out of the atmosphere. Net zero allows for some residual emissions produced by ‘hard-to-treat’ sectors such as aviation, therefore these emissions are offset using natural or engineered processes.

This is a momentous task but waiting to act in ten years’ time is no longer an option. We need to meet our combined environmental responsibility, alongside securing our economic future and wellbeing. Our borough has a rich history of social and industrial transformation,

with our early roots heavily embedded in carbon intensive polluting industry. Over the last 50 years, we have evolved as a borough, to become a beautiful, diverse place to live and work.

We now have a challenge to transform and evolve once again, encouraging innovation and opportunities for all where everyone can grow and live in a clean, green place they can be proud of, with efficient housing, secure jobs, fresh air and a beautiful environment for all.

The strategy is not intended to act as a fixed and defined course to Wigan Council’s route to carbon neutrality, there will be further developments in scientific projections and climatic impacts that cannot be accurately predicted. To move forward, there needs to be continuous involvement in the development and implementation of actions surrounding the strategy from the Council, residents, communities, businesses and other key partners.

SECTION 2

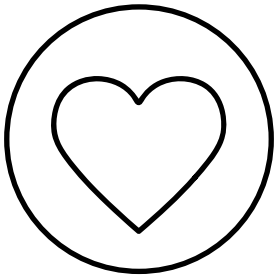
CLIMATE

CHANGE

STRATEGY

FRAMEWORK





2.1 OUR LOCAL FRAMEWORK

The Climate Change Strategy is one of several ambitious plans for our borough, planning the urgent action required to meet our important priorities. At the heart of our strategic vision sits our corporate strategy. The Deal 2030 provides a unifying strategy for the whole of the borough to make it the best possible place to live and work over the coming decade.

The Deal 2030 was created after Wigan Council undertook its biggest ever consultation called 'The Big Listening Project', which visited 83 locations across the borough, spoke to over 6,000 people directly and collated 10,000 ideas. At its heart, The Deal 2030 is about empowering communities and enabling them to do what they do best. It has meant finding out what is important to our residents, communities and businesses, what truly makes them happy, and focusing on their strengths and talents.

We listened to fantastic ideas ranging from the future of town centres to opportunities for young people, from being part of a caring community to living in a clean and green place. One of the biggest themes that was highlighted by many residents was just how proud people are of our borough, and how passionate they are about our environment and effecting change for the better.

From the results of The Big Listening Project we identified 10 strategic goals for our borough which we grouped

together as priorities for Our People, Our Place and Our Future.

It was identified by our residents, community groups and young people that the state of the environment was a key issue and presented a major concern. Common issues raised included:

- Air quality
- Recycling and single use plastics
- The effects of climate change
- Our natural environment and its biodiversity

The Climate Change Strategy will not only provide the route map to a net zero carbon Council, but it will also help address the key issues raised by our residents and support us in delivering our new environmental vision and targets. We also want to maximise the positive impacts our work will have on the health, wellbeing and prosperity of our residents.

The table on the following page summarises how the Climate Change Strategy contributes to The Deal 2030 strategic goals.

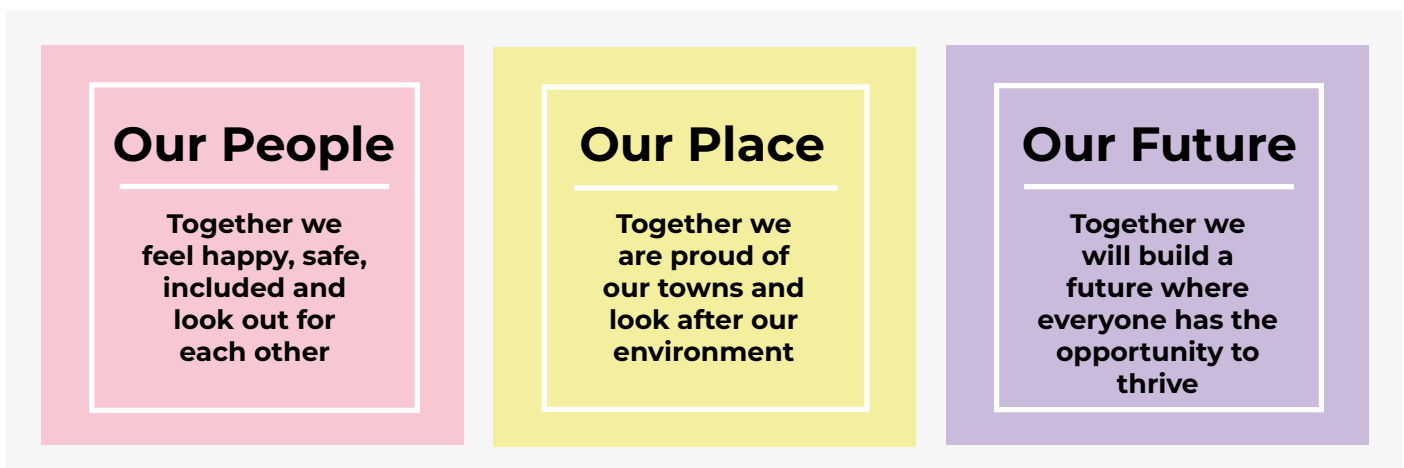


Figure 1: The Deal 2030 Strategic Priorities



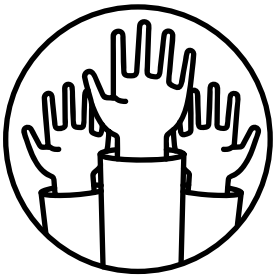
Table 1: Climate Change Strategy contributions to The Deal 2030

The Deal 2030 Strategic Goals	How our Climate Change Strategy will contribute:
<p>Our People</p> <p>Best start in life for children and young people</p> <p>Happy healthy people</p> <p>Communities that care for each other</p>	<ul style="list-style-type: none"> ▪ By taking action to mitigate and adapt to climate change we will reduce the risk of harm to people e.g. from extreme weather such as flooding and heatwaves ▪ By taking action to improve air quality we can improve health and reduce the number of deaths associated with poor air quality ▪ By acting we can reduce biodiversity loss and help mitigate the consequences of food shortages and the impacts this will have on our health and food security ▪ By taking action to reduce pollution and contamination we will reduce the potential risk of harm to human health and the wider environment
<p>Our Place</p> <p>Vibrant town centre for all</p> <p>An environment to be proud of</p> <p>Embracing culture, sporting and heritage</p>	<ul style="list-style-type: none"> ▪ By creating a cleaner, greener place it will make the borough a more attractive place to live, work and invest ▪ By reducing the impacts of climate change, we can help stabilise and mitigate significant impacts on our local economy ▪ By supporting the creation, protection, enhancement and accessibility of sustainable green infrastructure we will provide a natural environment for people to enjoy and contribute towards their health and wellbeing ▪ By supporting efforts that recognise the valuable contribution that the natural environment makes we will help our local economy particularly the rural, leisure and tourism sectors
<p>Our Future</p> <p>Economic growth that benefits everyone</p> <p>A well-connected place</p> <p>Confidently digital</p> <p>A home for all</p>	<ul style="list-style-type: none"> ▪ We will help increase the amount of people using greener travel, and improve connectivity across the borough ▪ We will create community wealth by identifying local business opportunities that will arise from the move towards a low carbon future e.g. renewable energy, sustainable transport, smart technologies, research and development ▪ By promoting digital solutions, we will reduce carbon emissions by reducing our reliance on paper and reducing business mileage ▪ We can reduce fuel poverty by introducing programmes of building retro fit, insulation and utilising green energy solutions

Alongside the Deal 2030, the following strategies provided a strategic framework of background evidence and information, which has helped inform the direction for the Climate Change Strategy.

Table 2: Links between the Climate Change Strategy and other

Strategy	Aim and link to Climate Change Strategy
<p>Wigan Local Plan Core Strategy</p>	<p>The Core Strategy looks forward to 2026 and leads the regeneration of our communities and addresses the social, environmental and economic challenges the borough faces. It sets out the planning strategy including how much housing and employment development is needed, where it should be located and how development in the borough will fit in with development in adjacent areas.</p> <p>The strategy includes an objective to help mitigate the borough’s greenhouse gas emissions and adapt to the impacts of climate change. There is also the provision of 5 policy frameworks in the areas of strategic landscape and green infrastructure, built environment, wildlife habitats and species, low carbon development and flooding that focus our environmental efforts.</p>
<p>Wigan’s Economic Vision</p>	<p>The strategy sets out how our borough is made up of strong, proud towns, historic villages and a wealth of green and blue spaces. Our economic ambitions for 2030 include reinvention of the Wigan Wallgate area with the arrival of HS2 creating an economic centrepiece, prioritising walking, cycling and public transport as a means to travel across the borough and ensuring an innovative enterprise to create successful businesses.</p> <p>The economic vision includes ambition to adapt to the needs of the future, providing cleaner air, safer and greener transportation and quality housing. Reinventing our greenspace and waterways, creating business and cultural hubs within our empty heritage buildings and ensuring high quality of life for all.</p>
<p>Wigan Borough on the Move: Transport Strategy and Action Plan</p>	<p>The strategy covers a range of transportation issues facing the borough including better integration of bus and rail services, road projects, congestion measures, car parking, cycling, walking and the need for public transport improvements. Action planning ensures we balance transport growth while minimising the detrimental impacts on our environment, landscapes, communities and individual’s quality of life.</p> <p>Long term environmental outcomes include placing strategic importance on rail and bus networks, generating a new culture of cycle commuting, walking built into everyday routines and working with all sectors to ensure journeys are sustainable where possible.</p>
<p>Wigan Housing Strategy and Action Plan</p>	<p>This is a strategy for the Council and partners to deliver better housing choices in all parts of the borough and make existing homes ‘right’ for people and families: healthy, suitable and stable homes.</p> <p>The strategy outlines a revolution in quality zero-carbon homes and aligns with the ambition to enable Wigan Council to achieve net zero carbon by 2038. Ambitions include targets for our public estate and housing stock to be fully energy efficient and only utilising certified renewable energy by 2025, working with housing providers to support sustainable solutions, and striving for higher standards for all new builds to be zero carbon by 2028 or sooner.</p>

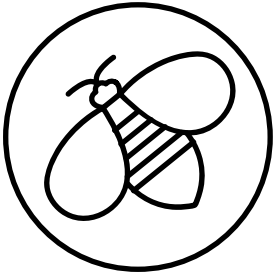


2.2 CLIMATE CHANGE STRATEGY DEVELOPMENT



[Our Climate Change Strategy has been developed in partnership with our key stakeholders and in conjunction with the following: -](#)

- Analysis and assessment of current environmental position and challenges both across our borough and within the Greater Manchester region
- Review of the wider policy and legal context
- Workshops and input from expert stakeholders including the Tyndall Centre for Climate Change and from the Association of Public Service Excellence (APSE)
- Review of existing activities and the future opportunities across our own services including those of our supply chain
- Consultation with local environment groups such as Wigan Environment & Heritage Network and Friends of the Earth
- Input from our elected members including our cabinet and member workshops
- Assessing good practice from other sectors
- Assessment of the likely resources the council will have in the future to support and deliver environmental work
- Specific workshops with our Eco Schools



2.3 GREATER MANCHESTER FRAMEWORK DEVELOPMENT

1

1. Mitigating climate change: For our city region to be carbon neutral by 2038 and meet carbon budgets that comply with international commitments.

2

2. Air quality: To improve our air quality, meeting World Health Organisation guidelines on air quality by 2030 and supporting the UK Government in meeting and maintaining all thresholds for key air pollutants at the earliest date.

3

3. Sustainable consumption and production: To put us on a path to being a circular economy, recycling 65% of our municipal waste by 2035 and reducing the amount of waste we produce.

4

4. Natural environment: To protect, maintain and enhance our natural environment for all our benefit, taking steps to implement and achieve environmental net gain.

5

5. Resilience and adaptation to climate change: To be prepared for the impacts of climate change and already be adapting to the future changes from any increase in climate shocks and stresses.

Figure 2: Aims of the 5 Year Environment Plan for Greater Manchester (also the source)

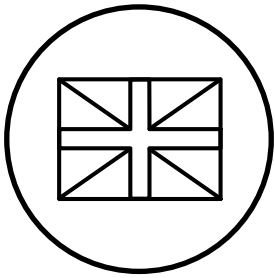
As a member of Greater Manchester Combined Authority, we need to ensure our climate change actions are aligned as close as reasonably practicable with Greater Manchester.

The 5 Year Environment Plan was launched in March 2019 and outlines in detail, the long-term environmental vision to be carbon neutral by 2038, and the urgent actions Greater Manchester needs to take in the next five years to help achieve this.

The plan aims to cover the major challenges of mitigating our contribution

to climate change, air quality, production and consumption of resources, natural environment and resilience and adaptation to the impacts of climate change.

Wigan Council is therefore fully committed to supporting the Greater Manchester agenda on climate change, but our actions will recognise our own opportunities, constraints, and issues. Where possible, we will work with Greater Manchester partners to achieve a coordinated, efficient approach, but we will also actively work with partners outside of Greater Manchester where it is appropriate and beneficial for us to do so.



2.4 UK NATIONAL FRAMEWORK

The UK's legislative adaptation and mitigation framework is primarily set out in the Climate Change Act 2008. This originally set in legislation that the net UK carbon account for the year 2050 would be at least 80% lower than the 1990 baseline. In June 2019, the UK Government increased the UK's legislated target for greenhouse gas (GHG) emissions reductions from at least 80% to at least 100% by 2050. The Scottish Government have set their own target of net zero carbon by 2045.

The Act places several legal requirements on the UK Government and their independent scientific advisory body the Committee on Climate Change (CCC).

The CCC advise Government via yearly progress reports and provide scientific information to support the development of the Government's 5 yearly Climate Change Risk Assessment.

The Act also requires Government:

- To regularly assess the risks to the UK of the current and predicted impact of climate change
- To set out its climate change adaptation objectives
- To set out its proposals and policies for meeting these objectives



2.5 GLOBAL FRAMEWORK

The Paris Agreement was a landmark environment accord adopted by almost every nation across the world to address climate change and its negative impacts. In 2015, countries around the world submitted their pledges to the United Nations, setting out how far they intended to reduce their GHG emissions. The deal aims to substantially reduce global GHG emissions in an effort to limit the global temperature increase in this century to 2°C above pre-industrial levels, attempting to limit the increase to 1.5°C. The pact provides a pathway for developed nations to assist developing nations in their climate mitigation and adaptation efforts.

As of 2019, 196 states and the European Union have signed the agreement including the UK who played a major role in the decision to reach the ambitious deal to reduce global emissions.

The agreement allowed each country to set its own emission reduction targets and adopt its own strategies for reaching them. The world's largest emitters including China and the USA also signed the pledge, but in 2017, the USA made the decision to pull out of the agreement.

**“IN JUNE 2019, THE UK
GOVERNMENT INCREASED
THE UK’S LEGISLATED
TARGET FOR GREENHOUSE
GAS EMISSIONS
REDUCTIONS FROM AT
LEAST 80% TO AT LEAST
100% BY 2050.”**

SECTION 3

THE CLIMATE



EMERGENCY,

COVID-19 AND



OUR HEALTH

COVID-19 and the Climate Emergency

2020 was predicted to be the year of change for environmental issues, but not at the cost that we have witnessed. On 23rd March 2020, UK Prime Minister Boris Johnson declared a nationwide lockdown in order to protect and prevent the spread of the global pandemic coronavirus (COVID-19).

COVID-19 is a public health crisis that has completely changed the way we work, live and behave as a society. Many people across the UK have struggled with not only the direct impacts of the virus on themselves or family members, but the loss of income through the furlough scheme, business or employment, health & wellbeing support as public services have had to redeploy and focussing on essential service provision. People have also lost valuable personal and social time with wider communities and the reduction in taking part in many things people take for granted such as going for a meal, or to the local pub with friends, or going walking in the Lake District.

However, we cannot ignore the environmental benefits that we have all experienced since lockdown has been in place. Across the UK, car usage has reduced by at least 60% resulting in significant reductions in harmful Nitrogen Dioxide (NO₂) emissions, which has allowed us to breathe fresher, cleaner air during lockdown. Many people have been encouraged to work from home, which has now become the new norm, leading to many businesses and organisations now reviewing their working practices. To ensure exercise and wellbeing are maintained, there has been significant increases in the volumes of people walking and cycling as they commute to essential workplaces, visit the local supermarket, or simply enjoy outdoor activity with their families adhering to social distancing measures.

We have witnessed fewer planes in the sky as many international and domestic flights have been grounded, and with fewer vehicular movements in general, many people have reported the joy in hearing the environment bursting with life again. Instead of hearing the nearby main road, or motorway full of congestion in a morning, we have heard birdsong, the sound of leaves rustling and the trickle of water flowing through nearby brooks and rivers.

Globally, emissions reductions are expected to fall by a record 5-10% as a result of the COVID-19 pandemic, with a potentially larger fall for the UK. But as reported by the Committee on Climate Change, this effect is only temporary and CO₂ emissions must be cut consistently on a yearly basis until they reach net zero globally, to slow global warming. These environmental benefits we have witnessed during COVID-19 have come at a huge cost to society and the economy, and is the most aggressive manner to road-test how emissions can be reduced – but this is not the method we can sustainably choose.

The lockdown measures put in place as a response to the COVID-19 pandemic will have different impacts over the short, medium and long term. The Committee on Climate Change released their Annual Progress Report on Emissions in June 2020 which laid out a framework of recovery that could reshape how we tackle the climate crisis. The UK has also agreed through the UN to lead a global work stream to ensure an inclusive and sustainable recovery. The Committee on Climate Change set out the below areas that hold strong economic, social and environmental benefits for immediate work to address the COVID-19 recovery and ensure it is sustainable:

- Investments in low-carbon and climate-resilient infrastructure
- Support for reskilling, retraining and research for a net-zero, climate-resilient economy
- Upgrades to our homes and other buildings, ensuring they are fit for the future
- Action to make it easy for people to walk, cycle and work remotely
- Tree planting, peatland restoration, green spaces and other green infrastructure

In July 2020, the Chancellor of the Exchequer announced his 'A Plan for Jobs' in which delivering a Green Recovery to the pandemic was a major focus. Funding was announced in areas such as public sector decarbonisation, investments in green jobs to improve the natural environment, as well as the introduction of a Green Homes Grant to improve the energy efficiency of over 600,000 homes across England.

The picture in Wigan Borough



Locally, Wigan Council has had to adapt quickly and efficiently to ensure essential service provision is maintained, as well as further support in new areas such as food and Personal Protective Equipment (PPE) provision. Wigan Council has also produced the Wigan Borough COVID 19 Outbreak Plan that has been designed to manage outbreaks, reduce infection rates locally and mitigate any negative impacts relating to the phased relaxation of the current national lockdown arrangements.

Within Wigan Council, service provision altered drastically from the start of lockdown, as essential service provision was prioritised, and the workforce and resources were redeployed to ensure Wigan Borough and communities were supported as much as possible. Our workforce organised logistics and distribution for the borough's foodbanks, as well as providing over 1000 food parcels for those shielding and the most vulnerable within communities. Sustainable food parcels were provided to ensure residents had access to fully nutritious and adequate meals during difficult times.

Our ways of working internally have also dramatically altered. The majority of Wigan Council staff are now predominantly home-based digital workers, to prevent further spread of the virus. This change in working practice is having a positive impact on the Council's emissions with regards to business mileage and commuters to Council owned buildings. Our car parks are now currently utilised for alternative uses such as providing temporary Track and Trace facilities.

Climate Change and Health Inequalities

Our resilience as individuals, communities, businesses and organisations has been put to the ultimate test during the pandemic and has alerted many to the knowledge that external pressures and shocks can heavily impact our society and economy. The pandemic has also highlighted that those who are the most vulnerable within our communities, are most at risk from the virus.

It is likely, that future large-scale shocks or external pressures will be a result of climatic change in the form of extreme weather events. Current climatic modelling predicts an increase in direct deaths, disability and injury from extreme weather conditions due to climate change. Indirectly, climate change will also have long-term, indirect impacts on people and communities such as the aftermath of flooding and the effect on mental health such as increases in anxiety and potentially depression if an individual or community has lost homes, belongings or ultimately life.

There is a close relationship between the challenges of climate change and health inequalities, mainly as both impacts disproportionately on the most disadvantaged communities and individuals within society. The pandemic has highlighted the need for a sustainable economy, food system, transport network and use of green spaces. Measures to address both climate change and health benefits are also linked such as active travel, which not only reduces emissions, but improves individual physical and mental health, reduces strain on health services, and also improves local air quality as well as reducing traffic accidents and congestion.

By creating our Climate Change Strategy, Wigan Council have developed themed areas of working that will support the health of Wigan Borough and it's residents. We will commit to preventing a return to 'Business as Usual' from the pandemic and ensuring that our recovery to COVID-19 is sustainable and in line with our Climate Change Strategy aims, so that we may work towards our ambitious target of a carbon neutral Wigan Council by 2038 or sooner.

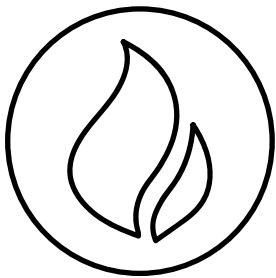


SECTION 4

THE CLIMATE

CHALLENGE

WE FACE



4.1

WHAT IS CLIMATE CHANGE?

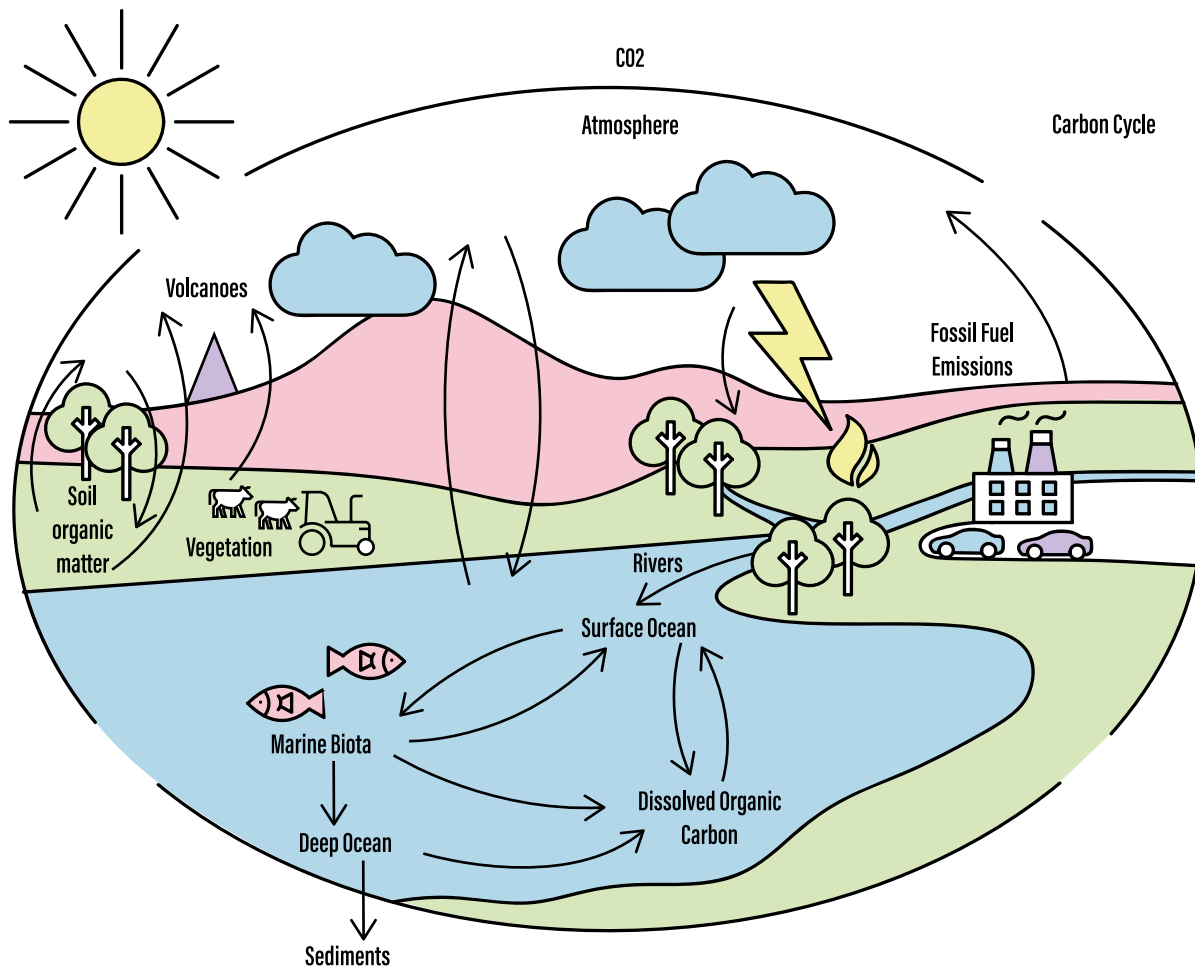


Figure 3: Overview of the Greenhouse Effect (source NOAA)

Climate change is identified as the single greatest threat humanity has ever faced. Many decades of scientific research have identified an undeniable link between increased volumes of greenhouse gases (GHGs) in the atmosphere, caused by the burning of fossil fuels to power the human world, and a significant increase in global temperature.

In the natural cycle, sunlight enters the Earth's atmosphere with some of this energy being absorbed at the surface by the land, and the rest re-radiated as heat back into the atmosphere. GHGs such as Carbon Dioxide (CO₂) exist naturally within the atmosphere, and these gases

trap the heat and distribute it across the planet. This natural process prevents our planet being a ball of ice and allows adequate temperatures for humans, animals and plants to exist – this is called the 'Greenhouse Effect'. Plants and the ocean play a significant part in the natural balance of GHGs as plants and trees intake CO₂ during their life cycle and oceans also absorb a lot of the excess CO₂ in the air.

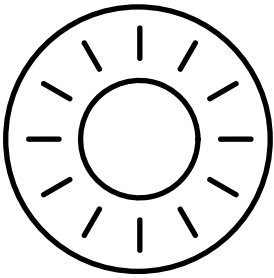
Other GHGs exist in the atmosphere and are also contributing to a warming planet:

Greenhouse Gas	Source	Lifetime in the atmosphere (per molecule)
Carbon Dioxide (CO₂)	Primary GHG that mainly comes from burning organic materials such as fossil fuels: coal, oil, gas, wood and solid waste	Dependent on many systems therefore between 5 – 200 years
Methane (CH₄)	Mainly released from landfills, natural gas and petroleum industries and agriculture – most specifically digestive systems of grazing animals	Approximately 12 years
Nitrous Oxide (N₂O)	Mainly agriculture and livestock as well as burning fossil fuels	Approximately 114 years
Industrial Gases	Fluorinated gases that are used in refrigerants, solvents and in manufacturing. Unlike other GHGs, these gases have no natural sources and only come from human-related activities.	Dependent on the type of gas between 270-50,000 years

Table 3: Source and lifetime in the atmosphere of other greenhouse gases (source NASA)

Naturally, due to many Earth processes such as volcanic eruptions, the planet has been both hotter and colder over geological time, than it is today. Therefore, climate sceptics are correct in acknowledging that natural processes change climate. However, humans have never witnessed such a large scale change in temperature throughout their history and as the current climate provides life across the planet, there is a delicate balance that can quickly trigger a lot of the planet to become uninhabitable due to sea level rise, or land degradation.

Since the mid-1800s, and the onset of industrialisation and large-scale burning of fossil fuels, human activities have been changing the Earth's natural Greenhouse Effect. Burning fossil fuels like coal, oil and gas releases a lot more CO₂ into the atmosphere than typical natural cycles. Too many GHGs now exist in the atmosphere, which in turn trap more heat from the Sun, causing the Earth to gradually warm.



4.2 THE IMPACT OF 1.5° C GLOBAL TEMPERATURE RISE

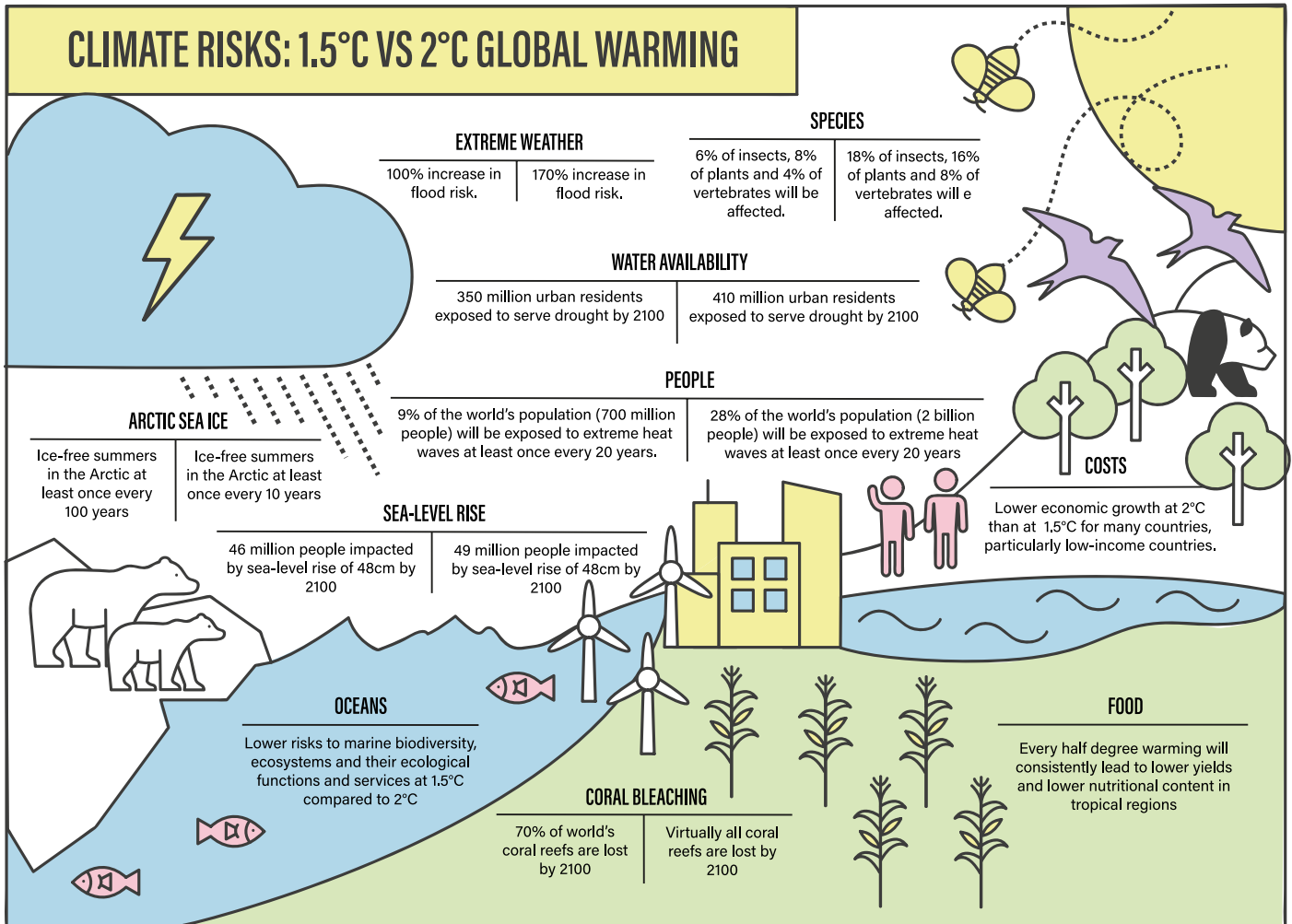


Figure 4: The risks between global temperature rise of 1.5°C and 2.0°C (source WWF)

The Intergovernmental Panel on Climate Change has stated that human activities are estimated to have caused approximately 1.0°C of global warming above pre-industrial levels and we are likely to reach 1.5°C by as early as 2030.

Locally, a degree in temperature difference does not cause any significant impacts on the planet and its processes, but globally the impact can be huge. These impacts of climate change have not been spread evenly around the planet as temperature increases at different speeds everywhere

with the strongest warming happening in the Arctic and along the equator.

The 2015 Paris Agreement marked a step change in political ambition, with a globally binding commitment to reduce emissions and keep the world's temperature rises well below 2°C, with strong efforts to stay below 1.5 °C. Temperature rises caused by emissions released to date have already profoundly altered human and natural ecosystems, with these impacts projected to increase unless drastic action is taken.



4.3

IMPACT OF CLIMATE CHANGE ON OUR BOROUGH

Currently the UK, along with the rest of the world, is not on track to meet targets set during the 2015 Paris Agreement. Therefore, alongside a surge in carbon emissions reductions, there needs to be a shift to urgent local action, ensuring communities adapt and become resilient to the effects of climate change.

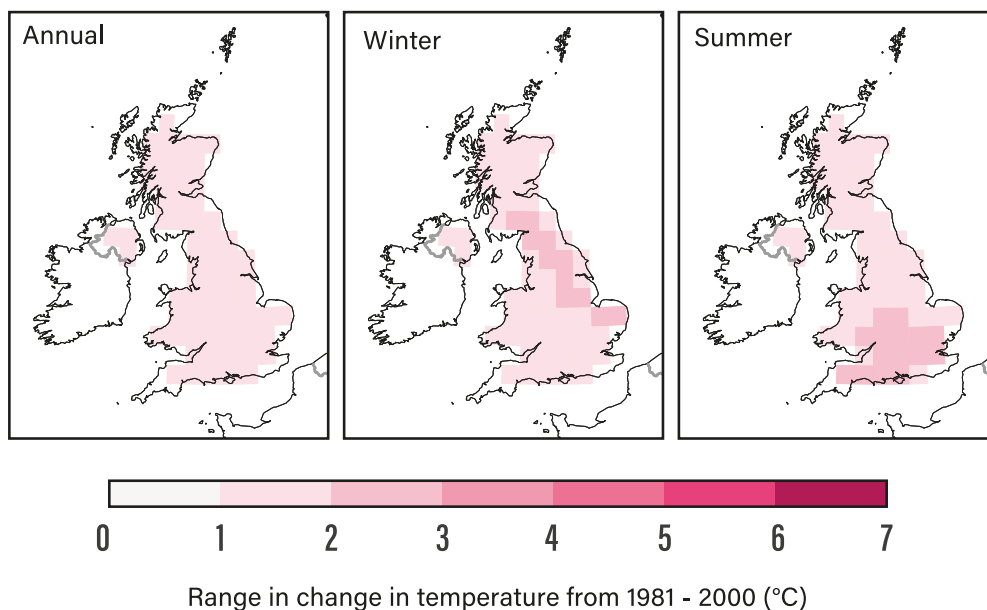
Data from the Met Office UK Climate Projections 18 (UKCP18) outlines how in the UK, the most recent decade (2008-2017) has been on average 0.8°C warmer than the 1961-1990 average. All the top 10 warmest years have occurred since 1990 and annual average rainfall has increased, meaning on average northern England and Scotland are around 11% wetter today than 1961-1990. Projected trends will see a move towards warmer, wetter winters and hotter, drier summers, however natural variations will still occur.

We can relate these projections to our recent Storm Ciara and Storm Dennis in February 2020 and the significant flooding of December 2015. Hot summers are expected to become more common and with future warming, the summer of 2018 which saw record breaking temperatures, could occur every other year by 2050. Conversely, there is also projected future increases in the intensity of heavy summer rainfall which will impact heavily on the frequency and severity of surface water flooding.

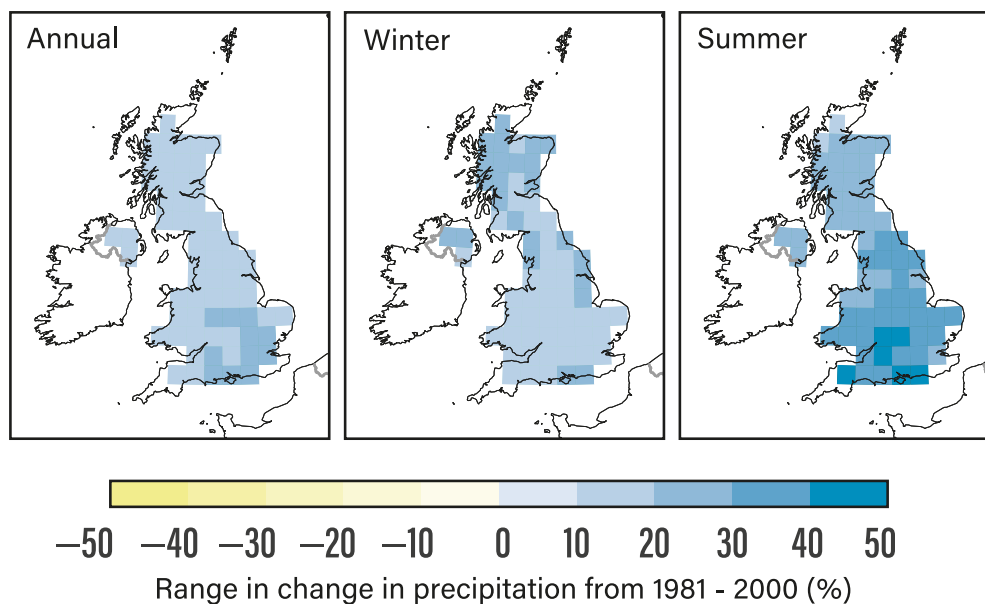
The future changes in climate have significant impacts across a range of sectors in the borough including:

- Wetter winters and more intense rainfall events throughout the year may result in higher risks of flooding from watercourses. In many locations flooding will result in a high amount of surface water, exceeding the capacity of drainage systems, consequently leading to more frequent and severe localised flash flooding
- Warmer and drier summers are likely to affect quantity and quality of food and water supply, as well as damage to buildings and infrastructure and an increase in heat related illnesses
- Changing climate will hugely impact the natural ecosystems across the borough
- Residents, communities and businesses will need to adapt and plan around a changing climate
- Energy demand is set to increase with population rise, therefore as fossil fuels are a finite resource, they will slowly become diminished, unless we see a drastic shift to renewable energies, fuel prices will rise for the individual
- Water demand is set to overtake supply due to population rise and warmer temperatures

Projected change in temperature for a 2°C global warming level



Projected change in precipitation for a 2°C global warming level



These figures represent projected changes in precipitation and temperatures across the UK for projections in a temperature rise of 2°C. The projected changes include hotter, drier summers and warmer, wetter winters in comparison to the ranges from 1981-2000. Source: The Met Office.

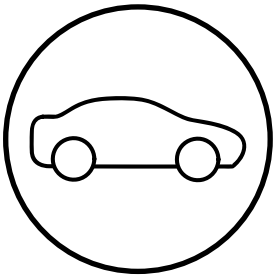
**“RESIDENTS,
COMMUNITIES AND
BUSINESSES WILL NEED
TO ADAPT AND PLAN
AROUND A CHANGING
CLIMATE”**

SECTION 5

IMPACT OF  UR

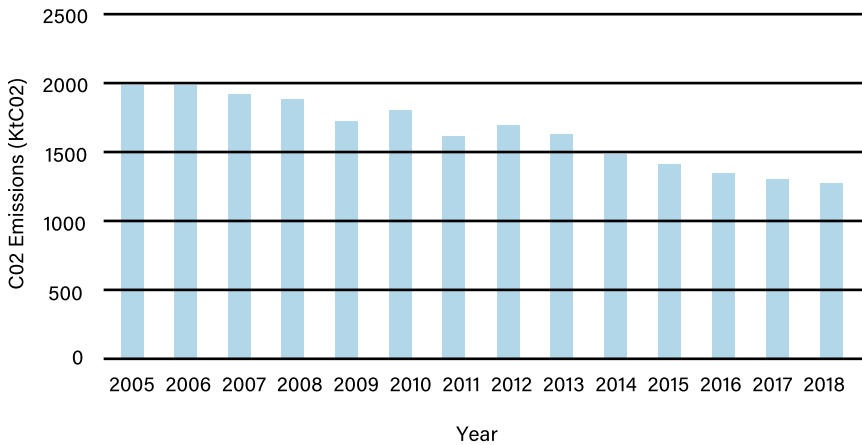
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CL  MATE



5.1 EMISSIONS FROM WIGAN BOROUGH

Wigan 2005 - 2018 Total CO2 Emissions (KtCO2)



Graph 1: CO2 Emissions for Wigan Borough over the period 2005-2018. Source: BEIS



Wigan borough's carbon emissions are currently identified through annual CO2 emissions estimates published by the Government's Department for Business, Energy & Industrial Strategy (BEIS). The estimates provide an overview of UK local authority and regional estimates of CO2 emissions on a yearly basis.

The data provides a breakdown of CO2 emissions in the key sectors of:

- Industry and Commercial
- Domestic
- Railways
- Road Transport
- Land Use, Land Use Change and Forestry (LULUCF)

There are certain shortcomings within the BEIS emissions that should be noted. Firstly, there is no differentiation between emissions sources within the borough, therefore we cannot identify the Council's emissions from this. The BEIS emissions data represents CO2 only and does not provide accurate information on emissions sources inside and outside the borough's boundary.

Other data excluded from the BEIS emissions are data which includes emissions from shipping, aviation and military transport. Currently, the UK's progress towards net zero carbon by 2050 does not include emissions from the UK's share of international aviation and shipping.

As work on the Climate Change Strategy progresses, Wigan Council will identify more accurate and specific emissions data, comprising all GHGs and identifying Council emissions as a baseline for the 2038 target of carbon neutrality.

The delay in reporting final emissions values is based on collecting data from industrial firms, energy producers and consumers. It may take several years to collect and process the data after the end of an accounting year therefore emissions estimates are generally published one to two years after the emissions annually occur. Therefore in 2020 we received the emissions estimates data captured from 2018.

District	2017 CO2 Emissions (ktCO2)	2018 CO2 Emissions (ktCO2)	Percentage Difference +/-
Bolton	1,241.50	1,215.50	-2.09%
Bury	854.60	844.50	-1.18%
Manchester	2,073.00	2,032.10	-1.97%
Oldham	786.30	811.70	+3.23%
Rochdale	979.10	970.70	-0.85%
Salford	1,240.10	1,249.50	+0.75%
Stockport	1,198.10	1,172.20	-2.16%
Tameside	849.20	833.00	-1.90%
Trafford	1,510.60	1,470.90	-2.62%
Wigan	1,312.60	1,282.60	-2.28%

Table 4: GM district emission data for 2017 and 2018



In 2018, total CO2 emissions across the borough stood at 1,283 kilo tonnes of CO2 (ktCO2) which is a reduction of 2.28% from the previous year 2017 and a reduction of 35% from 2005.

The largest driver across the UK for emissions reductions since the early 2000s has been a modal shift in the power sector, with the introduction of a cleaner electricity mix based on gas and renewables instead of coal. Reduced fuel consumption by business and industry and the evolution of more efficient vehicles has also support emissions reductions.

From further analysis of the most recent emissions estimates for 2018, it can be identified that within Greater Manchester, Wigan Borough is the 3rd largest contributor of CO2 emissions behind the city of Manchester (2,032ktCO2) and Tameside (1,470ktCO2). However, Wigan's emissions reductions between 2017 and 2018 are 2nd in Greater Manchester

behind Trafford with a reduction on 2.62% in CO2 emissions.

Wigan Borough remains one of the larger contributors of CO2 emissions in Greater Manchester, largely due to area and population size.

Wigan is the largest borough in Greater Manchester and has the second largest population size at approximately 326,000 residents behind the 547,000 residents of the city of Manchester. However per capita emissions remain one of the lowest in the combined authority at approximately 3.9 tonnes of carbon.

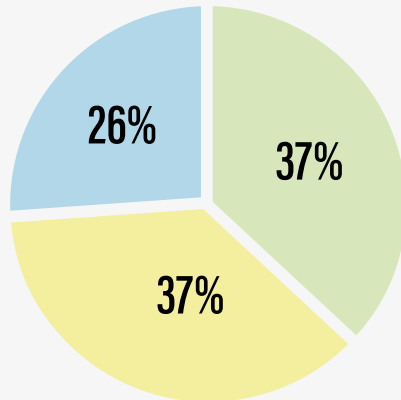
Another factor that adds to the large contribution of CO2 from Wigan to Greater Manchester is that the borough is bisected in the west by a large, busy stretch of the M6 motorway, as well as congested A roads including the A580 that runs west to east and crosses the southern extent of the borough.

Wigan 2018 Total CO2 Emissions per Sector

Figure 6 provides a further breakdown of emission estimates across domestic, transport, industrial and commercial sectors.

The emissions breakdown for Wigan borough per sector throughout 2018 is:

- 37% or 474ktCO2 attributed to domestic emissions
- 37% or 470ktCO2 attributed to emissions from transport
- 26% or 341ktCO2 attributed to emissions from the industrial and commercial sectors



- Domestic Total
- Transport Total
- Industry and Commercial Total

Figure 6: CO2 emissions by sector within Wigan during 2018

Domestic

Domestic Gas is the largest contributor of CO2 emissions across all sectors and in 2018 accounted for 67% of domestic emissions

Domestic electricity accounted for 24%

Other fuels contributed 9% emissions

Transport

Transport has seen the lowest emissions reduction since 2005

Motorway transport accounted for 34% of emissions

'A' Roads were responsible for 31% of emissions

Minor roads contributed 31% to emissions

Other transport and railways each accounted for 2% of emissions

Industry & Commercial

This sector has seen the largest reduction in emissions since 2005

Electricity accounted for 44% of emissions

Gas contributed 41% of emissions

Other fuels accounted for 12% of emissions

Large installations contributed 2% emissions

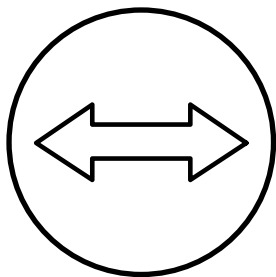
Agriculture contributed >1%

Figure 7: Summary of the emissions from domestic, transport, industry & commercial sectors within Wigan Borough

Between the periods of 2005-2018, within Wigan Borough, sectoral emissions reduced by:

- 49% in industrial and commercial
- 38% in domestic
- 16% in transport.

“WIGAN BOROUGH’S CO2 EMISSIONS HAVE REDUCED BY 35% OVER THE PERIOD 2005-2018, MAINLY DUE TO A SHIFT IN THE POWER SECTOR TOWARDS A CLEANER ELECTRICITY MIX BASED ON GAS AND RENEWABLE ENERGY, INSTEAD OF COAL.”



5.2

THE SCALE OF EMISSIONS IN OUR BOROUGH



Wigan Council and the wider borough have a challenging task ahead to mitigate against the impacts of climate change and drive to become net zero carbon by 2038.

Changes in summer and winter norms and increases in the frequency and severity of extreme weather events are outside of the control of humans and specifically Wigan Council. In order to prepare for the changing climate projected over the coming decades, there is a need to embed climate adaptation and resilience measures into all aspects of daily life whether that is for the individual, a family, communities, businesses or other organisations.

Alongside a modal shift towards climate resilient communities and a low carbon local economy, action needs to occur to decarbonise transport, buildings and systems to mitigate the worst of these impacts and to ensure we are safeguarding a sustainable future. Action on climate change will improve health, prevent environmental degradation and continue to allow sustainable economic growth.

Using the latest data, Friends of the Earth have analysed how different local authority areas across England and Wales have taken action to cut GHG emissions. There

are different estimates of how fast the UK should reduce GHG emissions to ensure we reach our national target of zero carbon by 2050. Researchers at the Tyndall Centre for Climate Research have published a reporting detailing Wigan Borough's climate commitment aligned with the 2015 Paris Agreement.

The research identifies that Wigan Borough needs to stay within a maximum cumulative CO₂ emissions budget of 8.4MtCO₂ for the period of 2020 to 2100. This requires initiating an immediate programme of CO₂ mitigation to deliver cuts in emissions by approximately 13% per year. At 2017 emissions levels, our borough would use its entire carbon budget within 7 years from 2020.

Friends of the Earth have identified that in comparison to other authorities, our borough has made less progress in addressing climate change. However, they have highlighted how local authorities cannot deliver the change needed alone and action is required by businesses, householders and other organisations as well as the Government needing to play a critical role in delivering ambitious policies and budgets.

Table 5: Summary of the current performance of environmental variables in Wigan Borough, alongside recommended targets from a case study of our borough by Friends of the Earth

Sector	Our current situation	Friends of the Earth Recommendations
Housing	<ul style="list-style-type: none"> ▪ 34% of homes are well insulated ▪ 12% of households suffer from fuel poverty ▪ 332 government funded eco heating systems such as heat pumps installed 	<ul style="list-style-type: none"> ▪ Upgrading insulation of 9,066 homes per year will ensure all properties are fully insulated by 2030 ▪ Fitting 5,055 eco-heating systems a year would contribute our borough's fair share to the UK target ▪ All homes should be at least EPC 'C' rated by 2030 ▪ Local authorities should sign up to a Housing Retrofit Compact
Transport	<ul style="list-style-type: none"> ▪ 9% of people commute by public transport ▪ 10% of people commute by walking ▪ 2% of people commute by bike ▪ 10% of commuter's car share ▪ 28 electric vehicle (EV) chargers exist around the borough 	<ul style="list-style-type: none"> ▪ Car use needs to reduce by 20-60% by 2030 ▪ Our borough should aim to have 50% of people commuting by public transport, cycling and walking by 2030 ▪ In our borough, there should be at least 151 EV charging points
Energy	<ul style="list-style-type: none"> ▪ Our borough currently produces 33,920MWh of renewable energy per year. 	<ul style="list-style-type: none"> ▪ The best similar local authority areas produce 428,949MWh of renewable energy per year. This is described as the minimum target to be achieved by 2030
Greenspaces and Trees	<ul style="list-style-type: none"> ▪ 70% of land is greenspaces, parks and countryside ▪ Total tree cover in the area is approximately 18% 	<ul style="list-style-type: none"> ▪ The target of tree cover for the borough is set at 23% by 2030
Waste	<ul style="list-style-type: none"> ▪ 52.8% recycled waste between 2019/20 ▪ 0.5% of waste sent to landfill 	<ul style="list-style-type: none"> ▪ The target of zero waste is set for 2030

SECTION 6

WORKING



TOGETHER IN



OUR BOROUGH



Wigan Council cannot reduce carbon emissions and prepare the borough for the impacts of climate change alone. As a collective, we are able to decarbonise our buildings, transport, systems and structures to reach the ambitious aim of net zero carbon by 2038. However, due to the length of time GHGs can exist in the atmosphere, even when we reach that target, we will still need to deal with the impacts of a warming planet for many years. It is vital that all residents, businesses and organisations understand the significant threat from climate change and work collaboratively with the Council and within their local community as the greatest impact will come from working together.

Residents & Communities



Our residents are the lifeblood to our great borough, our residents have created close-knit, mutually supportive communities that are proud of their heritage and always willing to help each other. We need to encourage communities to extend this pride and ownership onto their extended homes and families, the greenspaces, waterways, plants and animals that inhabit the rest of our borough. We have the responsibility as individuals to ensure we become as resilient as possible to changing climate and weather, however Wigan Council needs to provide strong support and guidance to communities.

Our borough has concentrations of high levels of deprivation, research suggests these communities are likely to suffer disproportionately from the impacts of climate change. Vulnerable communities are the priority in action planning with regards to climate change and we intend to ensure all those who suffer from climate vulnerability have the correct access to contingency plans in emergencies, care and support for issues such as fuel poverty, food insecurity and climate-related health conditions. Communities will be engaged in the process of creating a cleaner, greener borough, in order to create genuinely sustainable solutions. For example, improving or creating green spaces in a community can only be sustainable if local residents feel a sense of ownership, empowerment and understand all benefits associated with this.

Businesses & Local Economy

Our local economy needs to be given the opportunity to continue to grow whilst becoming resilient to the adverse impacts of climate change. The borough is constantly embracing the future across automation, social value, entrepreneurship and now zero carbon, and the economy in our borough needs to encourage widespread innovation and creativity in order to create a more sustainable and green future for businesses. Initiatives such as increasing energy efficiency, is an important way of reducing fuel costs for businesses, making them more competitive and releasing funding for reinvestment which could be used to support training or employment opportunities, creating green jobs.

Businesses are also increasingly likely to face new forms of carbon taxation such as 'cap and trade' regulations. It is within the future interest of all local businesses, large or small, to be energy efficient and increase their access to clean, renewable technologies. The demand for housing retrofits, and energy improvements across the borough will also create new market opportunities for renewable technologies.

With increased community engagement and a shift to more and more people leading green, sustainable lifestyles, businesses will also be under pressure to buy 'green' in response to the demands of their consumers. The supply chain for manufacturing, construction and service industries will need to meet raised expectations for high environmental standards. The rise of new products, services and energy markets will lead to a range of new business and job opportunities, whether it be in research and development, manufacturing of goods or installation, maintenance and servicing. The money saved across the borough with improved energy efficiencies can be released for reinvestment back into the local economy, ensuring we evolve into a green circular economy supporting the principals of community wealth building.

Partner Organisations

The way that Wigan Council and its partners deal with the challenges of climate change, will affect future generations, the local economy, job prospects and energy supplies as well as people's health, income and the confidence in their communities and the future. Therefore, climate change and its impacts must be prioritised within all key strategies of the Council and its partners including planning, land and building management, transport, housing, economic development, community planning, waste management, education and health and social care.

A strong culture of partnership working and experience of sustainability work amongst public sector agencies will assist in the implementation of the Climate Change Strategy and subsequent work. The borough has a strong political stand on climate change that will support the drive forward, but this must be matched by action at all levels. Collaborative working and robust climate commitments from the following partners will assist in the development of this strategy for the borough:

- National Health Service and its partners
- Emergency authorities including police, fire and ambulance services
- Greater Manchester Combined Authority and GM authorities
- Central Government
- Voluntary and the charity sector
- Local climate and environmental groups
- Private businesses including SMEs, multi-nationals and utility and service providers
- Research partnerships with local universities and wider research organisations and consultancies
- Education and training providers including local nurseries, primary and secondary schools, colleges and special schools

Community Wealth Building

It is clear that traditional economic practice and regeneration are failing to address the economic challenges of our time. Couple this with the climate emergency and environmental challenges, and there is a real need to redesign the approach to economic development to ensure our borough works quickly to become a sustainable place to live, whilst ensuring our economy thrives. Community wealth building is a new people-centred approach to local economic development, which redirects wealth back into the local economy, and places control and benefits in the hands of local people. It is a direct response to the hard-hitting challenges that Wigan Council have faced with regards to austerity across the borough. Community wealth building within our borough aims to provide resilience where there is currently risk, which is inherently linked to the climate emergency. Wigan Council is currently working alongside external stakeholders to build a more inclusive, local, green and circular economy by embedding community wealth building into all of our corporate strategies.

At the heart of our corporate strategy, The Deal 2030, is inherent community wealth building logic that has helped to transform the role of Wigan Council into an enabler of social economy. Community wealth building will also support the transformation of the Council and the borough as it strengthens the challenge to tackle climate change. Creating climate resilient communities means more than investing in infrastructure and mitigation, it means tackling economic, racial and societal inequality that leaves disadvantaged communities on the frontlines of climate damage. Doing so means applying a framework of community wealth building to climate resilience and mitigation planning, where democratic ownership and control creates more equitable and inclusive outcomes for all.

With community wealth building in mind, Wigan Borough can transition towards a thriving green economy that provides a better quality of life for all residents and communities, within the ecological limits of the planet.

SECTION 7

THE FUTURE

GENERATION OF

WIGAN

B  ROUGH



Climate Change is here. As its impact intensifies over time, it is our children and young people of today and the near future who will face the worst effects. This strategy has outlined the need for action on climate change, but the reason for this is simple – to safeguard our future, and our future largely incorporates the young people of our borough. They have been born into a world where multiple decisions led by previous generations have now created an environment much different to the one in which their parents and grandparents grew up in. Our young people have inherited a planet that has been heavily exploited for its resources and polluted beyond measure.

Across the world, we have seen thousands of school strikes, where millions of children have taken part in global climate change protests, highlighting how children are holding adults to account for the lack of action on climate change, which is drastically threatening their future. Young people have been talking about climate change for decades, but the latest generation of protestors is louder and more coordinated than before. Young people are using their moral authority as children, and social media influence to create more visibility for action on climate change. Many of our youth see tackling climate change as a matter of global justice recognising more and more that the human – environment connection has been lost, and this is impacting the most vulnerable people.

The importance of education in the fight against climate change cannot be ignored, and there is a need for education to equip and empower our young people to deal with uncertain environmental, economic and political futures. This means equipping our children with the skills to live sustainable and environmentally conscious lifestyles. Children have a right to thrive, develop to their full potential, and live in a sustainable world free from the fears of climatic instability that they have wrongly inherited from previous generations. Our young people should be at the centre of our climate emergency commitments, and we must educate the next generation to ensure sustainable development for the future.

Sustainable living in early childhood education, at home and in school, needs to become an important part of a child's upbringing ensuring that environmental education is embedded within day-to-day learning, rather than a topic or theme to consider for a short time. Behaviours such as encouraging children to recycle correctly, waste less materials, wear sustainable clothing, walking and cycling to local places, consuming less red meat and dairy, and saving energy and water should be promoted from the earliest age possible.

We want to ensure the young people in our borough no longer worry that their voices are not heard on this significant issue. In early 2020, BBC Newsround conducted a survey with 2,000 8 to 16 year olds and found that most children are worried about the impact that climate change will have on them when they're older and are frustrated and anxious at the lack of progress. When asked about the action being taken by adults to tackle the problem, 40% of children don't trust adults to tackle the challenges that climate change presents and nearly two-thirds say leaders aren't listening enough to young people's views.

In Wigan Borough, we want to reverse this view and inspire our young people to show that we will work hard to protect our future together, We will make sure that our young people are heard at every level so that they can witness powerful leadership on important topics and inspire them to join us and work together.

It is not fair to assume our younger generations will not only suffer the consequences of a changing climate, but also make all the hard decisions after further inaction from the adult generation that exists today. And by declaring a Climate Emergency in July 2019, Wigan Council acknowledged this unfairness, and commit to ensuring all young people within our borough, have the opportunity to reach their full potential and live in a clean, green borough where a sustainable future is safeguarded.

SECTION 8

OUR J  URNEY

TO NET ZERO

S  FAR

It would be wrong to assume that mitigating our emissions and adapting to climate change is a new working practice, Wigan Council, its partners, businesses and communities across the borough are acting. We have already made significant progress in reducing our CO2 emissions and have developed more initiatives to reduce our carbon emissions even further across the Council estate and our borough. Several examples are listed below.

Our Council Journey



- As a corporate landlord with over 22,000 homes, Wigan Council has invested in improving the fabric and insulation of our housing stock, installed over 18,000 energy efficient gas condensing boilers, and as a result, our homes have increased their SAP 11 (Standard Assessment Procedure) energy rating to 71 out of 100
- 1,425 homes receive the benefit of solar PV's. Tenants benefit from free electricity during daylight hours and the Council receives an annual feed in tariff
- Our residents are now recycling more than ever. The borough's recycling performance has increased from 42% to 52.8% ensuring less and less waste is going into land fill – our 2019/20 landfill rate was 0.5%
- Wigan Council is the top plastic recycler in the country with over 9,000 tonnes of plastics captured through our brown waste stream and then recycled back into milk bottles, food cartons etc
- We are also currently recycling record tonnages of food and green waste which is now being processed as compost and being reused by the agriculture industry
- We are currently exploring a move to "green" our Council transport fleet, including a move, where practical, to electric powered vehicles and reconfiguring our work journeys to the most sustainable option
- We have already replaced our 36,900 streetlights across the borough with new LED derivatives, reducing CO2 emissions by over 3,400 tonnes per year and saving the Council over £1m on its annual energy bill
- We are working closely with our Greater Manchester neighbours to develop a number of regional strategies, including the Greater Manchester Clean Air Plan and the Greater Manchester Spatial Framework



- Our borough is well placed geographically to manage the risks of climate change, and to take advantage of the opportunities it presents. Skills in the borough already exist that are readily transferable to a low-carbon economy, and local businesses are already starting to profit from the growing demand for renewable energy
- Our borough's NHS Clinical Commissioning Group are committed to building healthy, resilient communities and have a local target of reducing carbon emissions by 51% from a 2011/12 baseline by 2025
- The Carbon Landscape Project encompasses the wetlands of Wigan, the Mersey and the moss lands in Salford and Warrington. The Project is a £3.2million initiative funded by the National Lottery Heritage Fund and aims to help us to connect all wildlife sites together to create a resilient landscape. Several projects are focused in our borough including habitat and moss land restoration and hydrological improvements at Amberswood, habitat and water quality improvements as well as two wetland Sustainable Urban Drainage facilities along the Hey Brook and improving accessibility at Three Sisters Recreation Area including new bridges and boardwalks, wildlife trails and the creation of Citizen Scientists
- Wigan Warriors RLFC Community Foundation has launched an innovative new project with partners. The 'I'm a Green Warrior' campaign will engage hundreds of schools, colleges and businesses along with thousands of individuals to take part in the renewable energy agenda. The aim is to promote the development of a greener community and a sustainable future
- Community interest in climate change and energy issues is continuing to grow. As part of our Big Listening Project, key priorities that were established by our residents included a desire to have a cleaner greener borough and create an environment to be proud of
- 70% of the borough is greenspace and / or countryside. These areas can help us adapt to climate change and protect us from extreme weather by providing natural buffers from flooding, as well as flood storage and also providing shade during high temperatures. Our greenspaces are also vitally important to our clean air, with trees and plants helping to mitigate against air pollution

SECTION 9

CLIMATE

CHANGE ACTION  N

THEMES

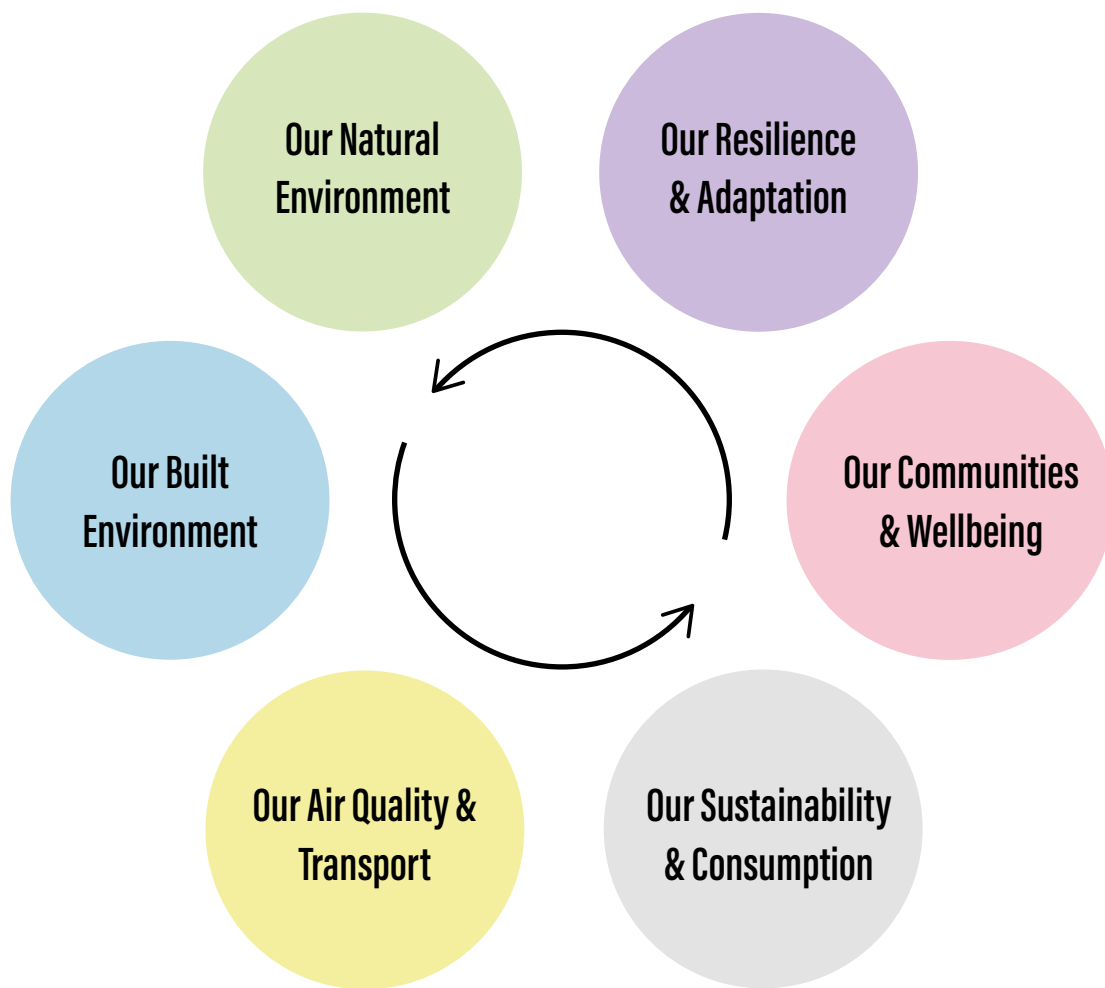


Figure 8:
Climate Change Action Themes
for our borough

These six Climate Change Action Themes represent areas of development and action that will focus our Climate Change Strategy. Much research and work will emerge from the development of these themes and we believe we have captured all the significant components that will ensure we achieve our target of net

zero carbon by 2038. The themes also crosscut our other Council priorities and strategies, therefore assisting in providing a better environment, local economy and opportunities for our residents, whilst ensuring communities adapt to the worst impacts of climate change.

**Our
Resilience &
Adaptation**

- We will prepare the borough for the unavoidable impacts of a changing climate
- We will develop infrastructure schemes to reduce the impact of flooding
- We will develop business continuity plans to account for climate change
- We will work with our communities to increase self-resilience and adaptation
- We will help lower financial loss and improve health & wellbeing

Our Communities & Wellbeing

- We will lead by example, working with communities to address the climate emergency
- We will maximise green employment and skills opportunities, promoting community wealth building
- We will build on community pride, working together to create a cleaner, greener borough
- We will embed climate issues into Council policy, planning and budgets

Our Sustainability & Consumption

- We will promote reduce & reuse policies and recycle 65% of our waste by 2030
- We will develop a Recycling Strategy, accounting for new legislation
- We will increase recycling via programmes of education & incentivization
- We will explore schemes to produce Bio-gas energy from our food waste
- We will help keep Council tax low and reduce fly tipping and litter

Our Air Quality & Transport

- We will be air quality compliant by 2025 or sooner
- We will promote transport modal shift by developing walking & cycling infrastructure
- We will significantly increase the number of electric vehicle charging points
- Will significantly reduce the Council's business mileage
- We will improve air quality and health for residents, providing alternative green travel and reducing congestion

Our Built Environment

- We will be a carbon neutral Council by 2038 or sooner, influencing the Borough for the same target date
- We will decarbonise our public estate and Council housing stock
- We will improve the energy efficiency of our public estate and Council housing stock
- We will develop renewable energy initiatives such as local energy networks
- We will help lower energy bills, improve health and wellbeing and create a climate resilient public estate

Our Natural Environment

- We will protect, enhance and maintain the Borough's natural environment
- We will deliver an ambitious tree planting programme
- We will reduce grounds maintenance and programmes such as verge cutting to help naturalise the Borough and promote increased biodiversity
- We will maximise biodiversity value through planning and land management
- We will improve habitats, provide access to abundant greenspaces and create a cleaner, greener Borough for us all

With the above commitments in mind, where possible, we have established the high-level environmental targets of the Council for the next 10 years. The themes of Our Resilience & Adaptation and Our Communities & Wellbeing include areas of work with currently no specific measurable targets. The development of these themes will be explored further in Section 8.

Theme	Objective	Target
Our Built Environment	<ul style="list-style-type: none"> ▪ We will reduce our annual carbon emissions ensuring the Council has net zero carbon emissions by 2038 ▪ Ensure our current public estate is fully energy efficient ▪ Ensure our public estate is utilising certified renewable energy 	13% emissions reductions per annum By 2025 By 2025
Our Air Quality & Transport	<ul style="list-style-type: none"> ▪ Our borough will be fully air quality compliant ▪ We will help increase the proportion of commuters walking, cycling, or using public transport ▪ Reduce the levels of businesses mileage associated with the delivery of council services ▪ Increase the number of electric vehicles charging points 	By 2025 or sooner 50% increase by 2030 20% by 2025 50% by 2035 250 points by 2030
Our Natural Environment	<ul style="list-style-type: none"> ▪ Double the tree cover within the borough ▪ Increase the naturalisation of the borough 	1 million trees planted by 2030 100 hectares by 2030
Our Sustainability & Consumption	<ul style="list-style-type: none"> ▪ Increase our overall household recycling rate 	60% by 2025 65% by 2030

Table 6: High level targets for Climate Change Action Themes



SECTION 10

CLIMATE

CHANGE ACTION 

PLANNING



This Climate Change Strategy is designed to demonstrate Wigan Council's lead and focus with regards to the Climate Emergency, providing confidence in our communities that we are prioritising this significant issue. The strategy has established high level commitments that need to be explored, researched and developed further in order to create strong action to move forward.

Our next steps include the development of a working group for each of the six Climate Change Action Themes. For each of our key themes our working groups will establish: –

- Key priorities for their allocated strategy objective
- Measurable outcomes and timelines
- Resources and budget requirements
- Identify potential risks and issues that could impact on our intended outcomes
- Explore opportunities that can be created through transformational change to a cleaner, greener borough
- Communications plans
- Stakeholder engagement events
- Commercial and funding opportunities
- Technology and innovation options

Once working groups have identified answers to the above areas of work, Action Plans will be created for each of the Climate Change Action Themes. These plans will set out the ways in which the Council can lower emissions from its operations and make its services more resilient to the effects of climate change. The plans will also identify how the Council, through its leadership position in the borough, can influence, inspire and support local communities and businesses to prepare for the future.

The plans will develop through a high level of collaborative working and engagement exercises with key officers within different services as well as external partners and stakeholders. We also want to ensure the Climate Conversation becomes a part of everyday life within the Council. Elected members and senior managers have taken part in Carbon Literacy training to enable employees across service areas to understand the need to move to zero carbon working, so that they may apply this to their own services. Wigan Council will roll out Carbon Literacy training to all staff members, promoting modal shifts in workplace behaviour to a sustainable and low to zero carbon organisation.

In addition, we will work with climate change experts to develop further baseline data including accurate Council carbon footprints and a carbon budget which will better inform future plans and progress reports.

SECTION 11

G VERNANCE,

MON TORING

AND

RESP NSIBILITY

Responsibility

The UK's challenging and legally binding target to reduce carbon emissions to net zero by 2050 will require major changes in our energy supply, demand and usage. In line with Greater Manchester, Wigan Council aim to be net zero carbon by 2038, an ambitious target but one that is critical to ensure we mitigate our emissions and adapt to a changing climate.

People connect to climate issues in many ways, but it is their homes and communities where they experience the direct impact and consequence of the changing climate. The local level is important for the impacts of climate and the steps being taken to change and adapt out infrastructure.

At the local level Councils are significant players in supporting the recycling and waste we throw away, developing and maintaining local infrastructure as transport authorities, housing provision, flood management and in deciding planning applications.

These decisions have a direct impact on sustainability and carbon footprint of areas like housing and transport, and also on the resilience of this infrastructure to issues such as extreme weather.

Councils are also community leaders and play an important role in supporting the growth of the green economy through Local Enterprise Partnerships, providing vital health and social care to local communities as well as being the voice of the people when it comes to national concerns and how they may affect the borough.

Wigan Council, therefore, has a responsibility to the people and communities of the borough to ensure we enact a transformation of the borough, into one that is climate and future resilient, sustainable and prosperous for all. Guided by local and central Government legislation, Wigan Council will ensure we deliver on our climate commitments.

Governance

Achieving our target of net zero carbon by 2038 will not happen through taking a 'Business as Usual' approach. We need to make difficult and challenging decisions, particularly in areas of funding and finance, to ensure we understand the correct actions to be taken to tackle the climate issues we face. We will all need to focus on how to stimulate more creative ideas and opportunities across the Council, it's partners and the borough.

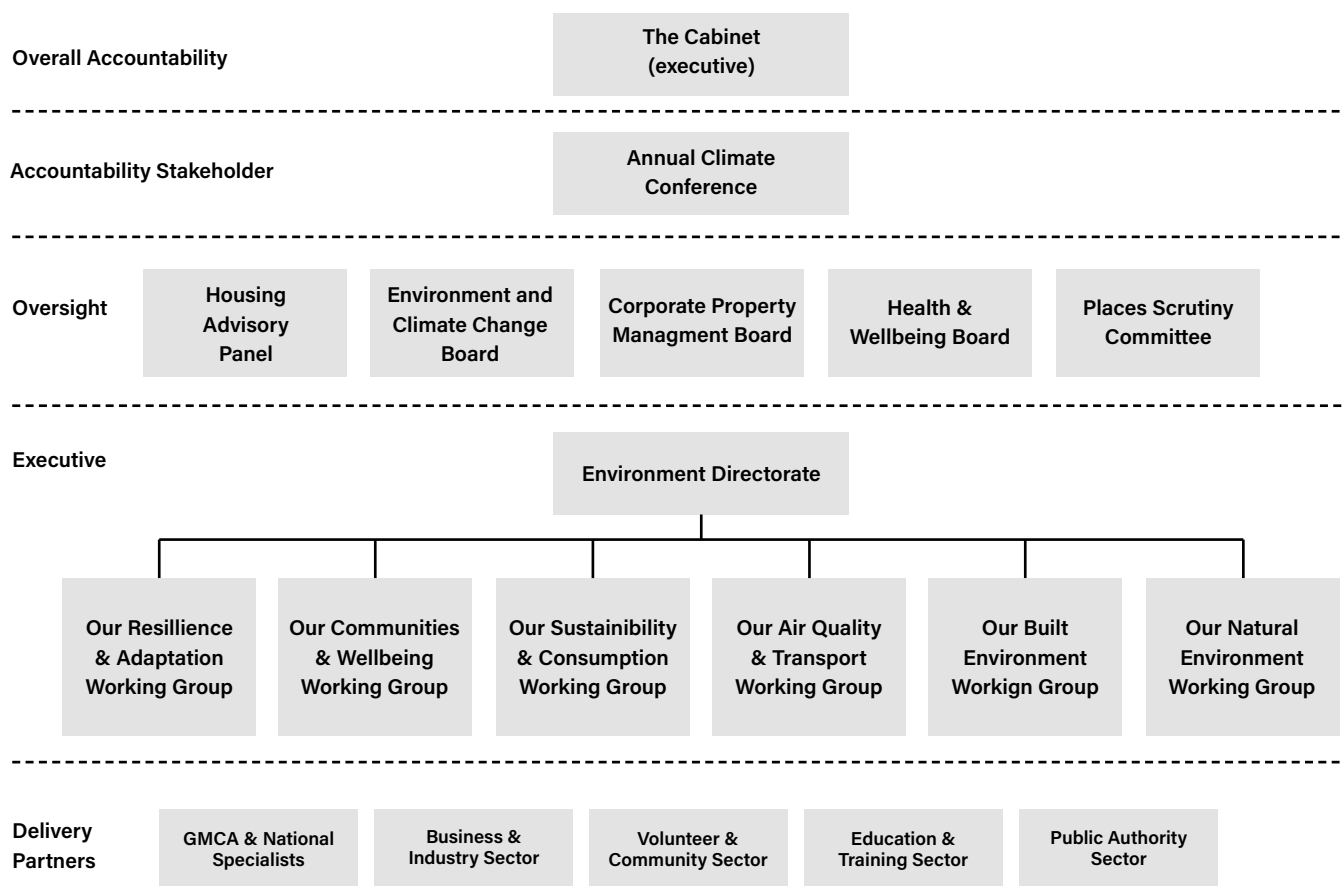
Ongoing delivery of the Climate Change Strategy will be implemented by the Environment & Climate Change Board, overseen by the Director of Environment at Wigan Council.

Board members will be drawn from relevant Assistant Directors, Service Managers or officers involved directly in specific projects / initiatives set out in our action plans.

The board will engage with external partners to support the delivery of the strategy and action plans and will promote partnership working where appropriate. Membership of the board will be flexible to support the various the priorities outlined in the action plan which will be reviewed on an annual basis.

The Environment & Climate Change Board will establish project-specific task and finish groups to help deliver the desired outcomes of the strategy. Progress will be shared periodically with the council's Portfolio Holder and Lead Member responsible for Environment. Also, regular progress reports will be presented to the Places Scrutiny Panel and the council's Senior Management Team.

Figure 9: Governance of the Climate Change Strategy at Wigan Council



Monitoring

After the development of each of the six Climate Change Action Themes, their corresponding action plans will provide overviews of each individual action, their responsible service team within the Council, a timescale of completion, key environment performance indicators (KEPIs), analysis of resources that may be required and partner organisations and support that is required from them to deliver.

Actions will be monitored and reviewed within the given timescales and this process will be the responsibility of the named service department and associated officers, together with the relevant members of senior management team and the Climate Change Manager.

It is likely that many of the actions that develop from the Action Plans will have strong links across each

of the other plans, and with other strategies across the Council. Therefore, in order to avoid duplication, reviews will take place to ascertain how actions can crosscut and work together.

The Climate Change Strategy will be reviewed on an annual basis, and a yearly progress report will be undertaken so that updated emissions can be compared to baseline figures of 2005, and progress can be monitored and reported. Performance monitoring of the strategy will be managed through the Environment & Climate Change Board. Progress towards our climate targets using KEPIs data will be regularly reported to a range of internal and external stakeholders. In addition, a climate emergency performance summary report will be published on the Council's website on an annual basis.



SECTION 12

MEASURING UP

T THE CL MATE

CHALLENGE GE

In order for Wigan Council to reach its target of net zero carbon, achieving climate resilience and contributing to helping lower global emissions, our experience should provide a roadmap for other similar places to follow, reflecting our principle of being transformative. We will also need to gather relevant data and evidence to base our decision making on, evolve and learn.

We will develop this knowledge and monitor progress against this evidence. We will create a robust monitoring regime to record the interventions that are the most effective, whilst offering the best value for money and providing the widest co-benefits for residents, communities, businesses and the environment. An essential part of this strategy will be the monitoring, measuring and public reporting to communicate the progress the Council has made.

Action in 2020

In 2020, and in parallel with the delivery planning, we need to develop a clear framework for monitoring and review in subsequent years. We will: -

- Work with external partners to establish accurate baseline emissions data for all of the Council's key activities
- Establish detailed action plans for our key climate change action themes
- Develop key environmental performance indicators for mitigation and resilience action covering both outputs (what is delivered through actions) and outcomes (the difference made by the outputs). This monitoring will aim to identify and mitigate any unintended negative consequences
- Establish a transparent process to monitor delivery, communicate progress and update planning
- Establish and maintain the Wigan Council website as an up-to-date, informative source of climate change information, linking partners and their plans together
- Develop engagement activities to bring the Climate Conversation to the residents, communities and business across the borough. This needs to be carefully planned alongside the COVID-19 recovery work
- Continued focus work on what a 'Green Recovery' from COVID-19 will look like for our borough and ensure the climate emergency is at the heart of recovery operations and strategic planning

A final note on offsetting



Achieving net carbon zero for our borough will mean managing residual emissions remaining after all planned interventions have been made. This will typically involve carbon offsetting, which is a complex issue, with challenges around additionality, fairness, financing interventions and carbon accounting.

Wigan Council is considering offsetting practices within the boundaries of the local authority, including

tree planting, woodland, parks and land management. These natural sources increase the capture of CO₂ in a process termed 'sequestration'. Carbon sequestration describes long-term storage of CO₂ or other forms of carbon to mitigate the impacts of global warming. For example, sequestration of carbon emissions through land use change may be more acceptable than sequestration through land use change outside the borough.

Given the need to prioritise direct interventions to reduce emissions, offsetting will be considered as we get closer to 2030. While these practices will begin to be identified, offsetting will not be actively promoted above actions to reduce carbon emissions directly. However, given the potential lead in times to assemble finance from across partners, the potential need for land assembly and other complexities to resolve, we are proposing a review of offsetting requirements within the next 5 years.

PROTECTING OUR FUTURE TOGETHER