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Foreword

There are few challenges more important than the climate and ecological emergency. It is already affecting communities across the world and in the future will have high impacts on our local economy, local families and local wildlife. We've seen in Watford the profound effects of extended droughts followed by extensive rainfall, and the challenges of invasive species on our local biodiversity.

Councils can play a critical role in creating low-carbon and climate resilient communities and also play a leadership role in creating lasting and effective partnership with residents, community organisations and businesses. Together we can tackle the big issues facing Watford.

The Environmental Strategy builds on the work being done across the Council following the declaration of a climate and ecological emergency. We want to see Watford Borough Council achieve net zero carbon emissions in all its direct emissions by 2030, and see a net zero town, with the benefits of lower congestion, radically improved biodiversity and tree cover.

Our mission will require all sectors of our community to play their part as we address the climate and ecological emergency and move towards net zero. Together we can create a more sustainable future.



Peter Taylor
Elected Mayor of Watford



**Councillor
Ian Stotesbury**

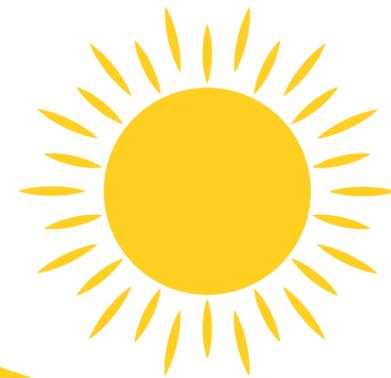


Introduction

We are facing a climate and ecological emergency. This is not something that may happen in the future, but something that is happening right now. We are reaching and crossing what are known as planetary boundaries: boundaries beyond which we may see non-linear, abrupt environmental change¹. The safe space that we humans are used to living in is in jeopardy. We can all see the changes happening globally: we've seen droughts, wildfires, heatwaves and hurricanes; locally - more torrential rain, floods, changes in the seasons and dangerous heatwaves.

Since pre-industrial times we have seen an average temperature rise of over 1°C globally and higher temperature changes within the UK. At COP21², governments committed to ensuring that the temperature rise remains below 2°C and ideally below 1.5°C compared to pre-industrial levels. This was again committed to at COP26³. This target is tough, but still achievable, although it is unlikely the peak temperature rise will remain below 1.5°C.

The longer we leave it, the tougher and more expensive it gets.



UK temperature change

¹ <https://www.ecologyandsociety.org/vol14/iss2/art32/>

² <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

³ <https://ukcop26.org/>; <https://unfccc.int/process-and-meetings/the-paris-agreement/the-glasgow-climate-pact-key-outcomes-from-cop26>

State of the UK Climate 2021

The UK's climate is continuing to change. Recent decades have been warmer, wetter and sunnier than the 20th century.

All the UK's top 10 warmest years, in the series from 1884, have occurred this century.

In 2021 specifically, UK temperatures and sunshine were near to the 1991-2020 average although rainfall was slightly below.

Here, we take a broader look at how key climate variables in the most recent decade (2012-2021) compare to averages over the last 60 years

2012-2021: A reflection of the UK shifting climate

Sunshine
2012-2021 was 2% sunnier than 1991-2020 and 8% sunnier than 1961-1990

Temperatures
The most recent decade (2012-2021) was 0.2°C warmer than 1991-2020, and 1.6 warmer than 1961-1990

Rainfall
The most recent decade was 2% wetter than 1991-2020 and 10% wetter than 1961-1990

Growing degree days*
The number of growing degree days increased by 2% since 1991-2020 and by 17% since 1961-1990

Near-coast sea surface temperature
Sea surface temperature near the UK coast increased by 0.1°C since 1991-2020 and by 0.7°C since 1961-1990

Heating degree days*
Heating degree days have decreased by 2% since 1991-2020 and by 11% since 1961-1990

Cooling degree days*
There were 16 cooling degree days for the most recent decade compared to an average of 14 for 1991-2020 and 9 for 1961-1990

Air and ground frosts
In the most recent decade there were 5% fewer air and ground frost days than 1991-2020 and a decline of 21% (air) and 18% (ground) frost days since 1961-1990

*Degree days are indicators of requirements for heating or cooling of buildings or conditions suitable for plant growth.

At a local level, according to the BBC's climate change site⁵, a global temperature rise of 2°C could mean we see more frequent hottest temperatures of 38°C, and rainfall on a single summer day go from 36mm to 53mm. For a rise of 4°C, hottest temperatures could exceed 42°C. Our current global emissions trend suggests we will gain an annual average global temperature rise of around 3°C. This is truly uncharted territory.

We are moving from climate change to climate chaos: unprecedented average temperature rises with potentially unforeseen consequences. Indeed, the negative impacts of climate change are mounting much faster than scientists predicted less than a decade ago, according to the latest report from a United Nations climate panel⁶, and demonstrated by the 2022 UK temperature record exceeding 40°C, which, in 2020, the Met Office suggested as a potential scenario for 2050⁷.

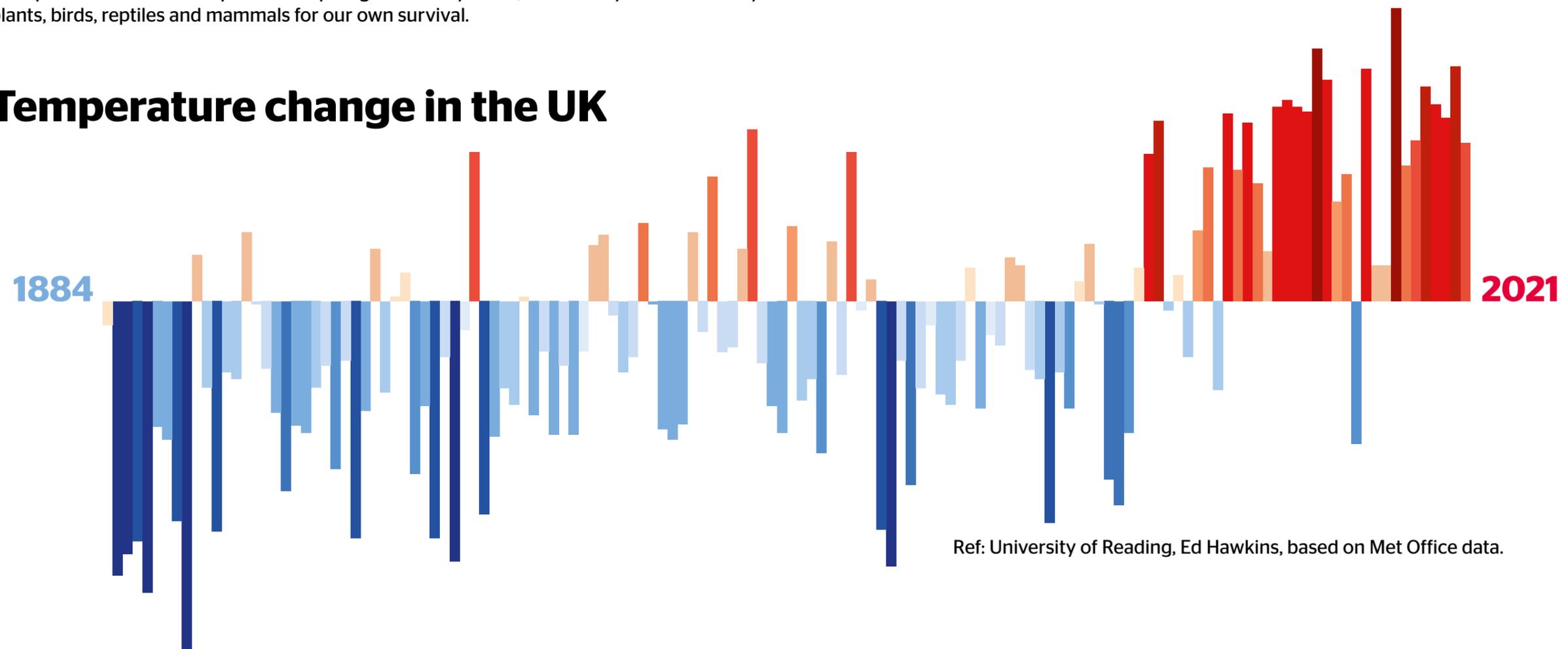
Scientists are saying we are moving into the 6th mass extinction: - primarily caused by humans, not just through climate change, but also habitat destruction and farming practices⁸. There is potential for ecosystem collapse on a global scale. In the UK, many animals once thought of as common are now on the endangered list, such as hedgehogs, bees, dormice and sparrows. Humans are part of complex global ecosystems, and we rely on the diversity of plants, birds, reptiles and mammals for our own survival.

There is still hope - with concerted effort, leadership and co-operation, we can limit our greenhouse gas emissions and provide space for nature, allowing it to recover and regenerate. We must start thinking about our place in the world in a different way, working with and within nature as part of a global system, acting with respect and reciprocity. The earth is not a commodity but our home, and it's the only one we've got.

The time to act is now - we still have a window of opportunity. Our clock for preventing climate catastrophe may no longer be at '5 minutes to midnight' but rather '5 minutes past', but there is still much we can do.

The longer we wait, the harder it will be, and the greater the financial, human and ecological cost.

Temperature change in the UK



⁴ <https://www.metoffice.gov.uk/research/climate/maps-and-data/about/state-of-climate>

⁵ <https://www.bbc.co.uk/news/resources/idt-d6338d9f-8789-4bc2-b6d7-3691c0e7d138> based on Met Office data

⁶ <https://www.nature.com/articles/d41586-022-00585-7>; <https://www.ipcc.ch/report/sixth-assessment-report-working-group-ii/>

⁷ <https://www.metoffice.gov.uk/services/insights/future-weather-forecast-for-2050>

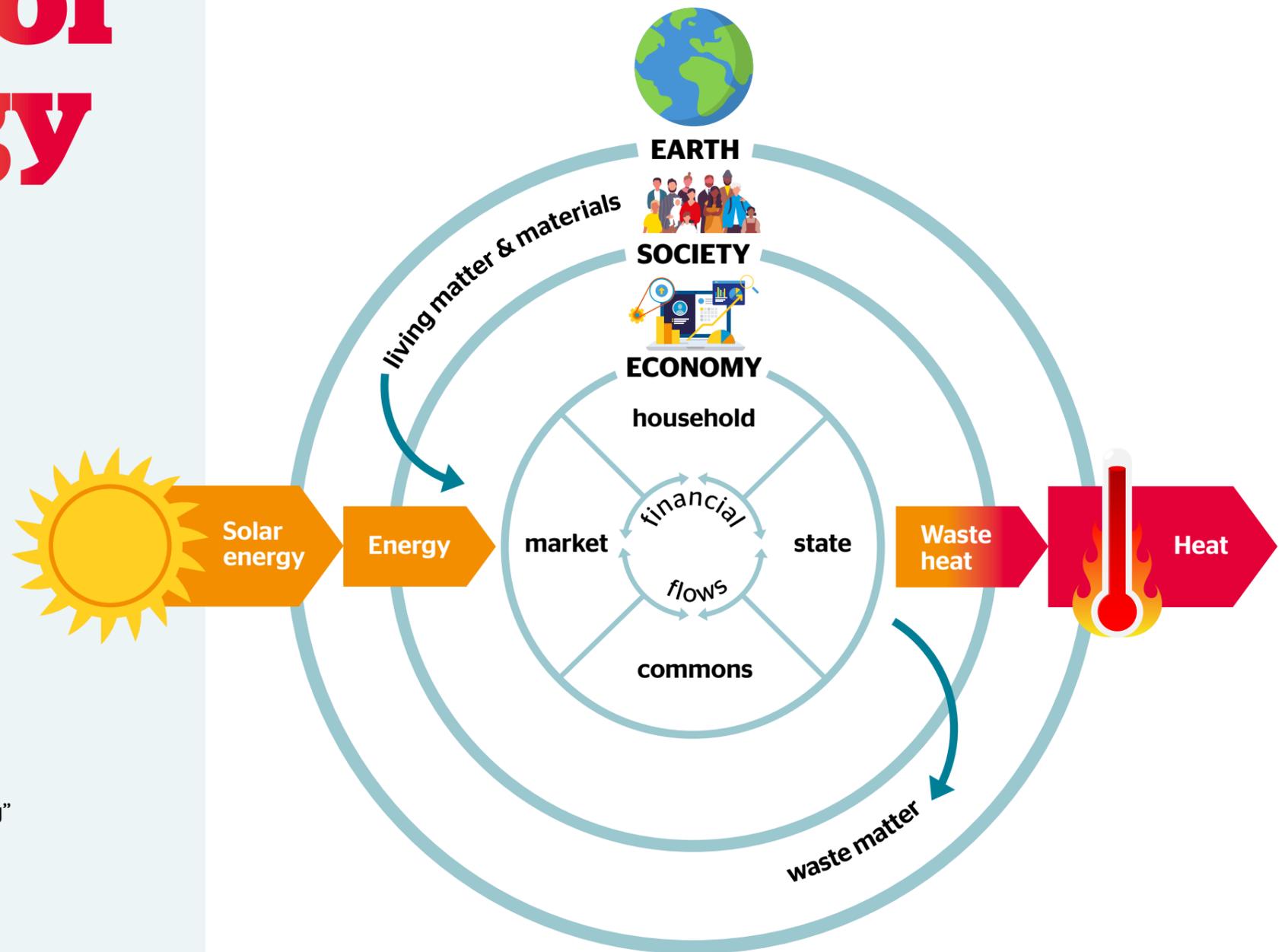
⁸ <https://www.worldwildlife.org/stories/what-is-the-sixth-mass-extinction-and-what-can-we-do-about-it#:~:text=What's%20causing%20the%20sixth%20mass,energy%20use%2C%20and%20climate%20change>

Overview of the strategy

This strategy sets Watford Borough Council's approach for addressing the climate and ecological emergency, achieving net carbon (equivalent) zero (CO_{2e}) by 2030 and how we are going to measure and report on progress. This strategy also addresses adaptive and regenerative issues, to help create a thriving and resilient place.

The climate and ecological emergency are cross cutting issues which affect all aspects of the Council's operations, as well as all aspects of people's lives within the borough. We will seek to embed these issues into all our operations. It is also important to remember that the borough is not an island, and we will not be working in isolation. This strategy and associated 2 year delivery plans will link with work within Hertfordshire (HCCSP⁹), regionally and nationally.

So what are we aiming for? In simple terms, a resilient and thriving society living within planetary boundaries, creating a safe space for humans to live. Our society needs to be resilient so that we can adapt to abrupt changes with minimum negative impact. "Thriving" means that no one lives below healthy living standards. To create a thriving and resilient society, our approach to the environment must be regenerative, as we have already passed beyond the planet's reasonable limits and need to redress the balance.



Towards sustainability

For a thriving, sustainable and resilient place, the economy needs to nest within society, which itself nests within the living world; whilst recognising the diverse ways the economy and society will meet people's needs and wants¹⁰.

⁹ Hertfordshire Climate Change and Sustainability Panel: <https://www.eastherts.gov.uk/hertfordshire-climate-change-and-sustainability-partnership-hccsp>

¹⁰ Doughnut economics, Kate Raworth, 2017

Approach

This strategy sets out 2 overarching themes - leading by example, and people power; and 4 sustainability topics:

Overarching themes:



Leading by example



People power

Sustainability topics:



Achieving net zero



Nature and ecological restoration



Responsible resource use



Adapting to change

For each of the four sustainability topics, the strategy will set out what the key issues are, what the Council can do through leading by example, and what needs to be achieved by people power within the borough.

The intention of the strategy is to build on the wider Council Plan and be the umbrella document in the context of the climate and ecological emergency. It does not seek to repeat detail, rather to reference them within the context of our approach and overarching targets.

Our key overarching targets are:

Leading by example



Council's own carbon emissions (CO_{2e}) to be net zero carbon by the end of 2030



Council's own waste reduced to near zero by 2030



30% by area of our green spaces managed to support nature by 2030

People power



Do everything in our power to achieve net zero carbon emissions (CO_{2e}) for the borough by the end of 2030



Do everything in our power to reduce waste by 50% by 2030, with recycling making up at least 60% of the waste¹¹

¹¹ <https://www.hertfordshire.gov.uk/media-library/documents/waste/spatial-strategy/collected-waste-spatial-strategy-2021.pdf>

Leading by example

To achieve the Council's objectives requires working across the Council and beyond. To enable, facilitate and inspire others, the Council will lead by example, both in its approach to addressing the climate and ecological emergency, and also in its approach to working with others.

The Council Plan for 2022 - 2026 has 4 themes, two of which are relevant to this strategy:

Theme 1: A high performing council which serves its residents with one relevant commitment.

- Become a greener, more sustainable council.

Theme 2: A greener, brighter future.

With four commitments:



- Encourage people to make greener travel choices, reducing congestion and improving the health and wellbeing of the town



- Promote improvements to the town's biodiversity to enhance the range of habitats, plants and wildlife in the town



- Work alongside our community and businesses to find the best ways to reach net zero carbon, seeking not just to learn from others but to explore innovative solutions that will work for Watford



- Encourage residents and businesses to recycle more, reusing materials and reducing waste and what they throw away

Across all the environmental strategy topics, the Council will work to ensure its own activities meet the targets set out, and that its own decision making approach effectively addresses the cross-discipline, environmental challenges. It will ensure that its officers and members understand the issues, imperatives and opportunities surrounding the climate and ecological emergency, and for officers to understand how to implement its practices effectively in their work, and encourage both officers and members to make changes in their home too.

The Council will also demonstrate its commitment and performance through its governance and reporting approach on net zero carbon, biodiversity and other key measures for a thriving Watford.

It will also ensure that its procurement process and investment portfolio approach meet our climate and ecological commitments. It will also embed environmental requirements into new and updated strategies, plans and grants.

In addition to the work it is doing internally, the Council will work with other organisations to support them and the borough in becoming net zero carbon and addressing the climate and ecological emergency; through lobbying government, collaborative working, promoting good practice and signposting people.

Targets

- To meet the Council Plan's Greener, Brighter Future commitments by 2026
- Ensure that the Council is a leader in co-ordinating with stakeholders across the borough to address the climate and ecological emergency
- Environmental strategy targets and associated actions embedded in all council strategies and plans as they are developed or reviewed, or by 2030 at the latest
- Councillors and all staff trained on the strategy and its impacts, climate change and the ecological emergency by 2024, and ongoing annual or biennial thereafter
- Ensure the Council lobbies regionally and nationally to improve the ability of Watford, and the UK to meet their environmental targets
- Annual reporting of key targets from 2024
- Regular review of the procurement strategy 2022 - 2026
- Ensure ESG remains a key consideration in where we invest
- Property investments (excluding FRI leases extending beyond 2030) to have EPC rating of B or higher by 2030
- ESG/Environmental impacts to be a key consideration in all new JV and own projects by 2025

People power

We all have our part to play, and we all have opportunities to do so. In meeting this imperative, we also seek to enable people to be happy and healthy, and to thrive. We want to provide the means for Watford residents, businesses and community groups to create resilient lifestyles, within the living world's boundaries. Throughout the document, there are some targets which are not within the Council's ability to deliver, but will instead be encouraged and facilitated by the Council wherever possible. These are the targets that fall under Borough or People Power. To achieve the necessary changes we will need engagement and action from everyone across the borough including residents, businesses, other organisations, community groups and visitors.

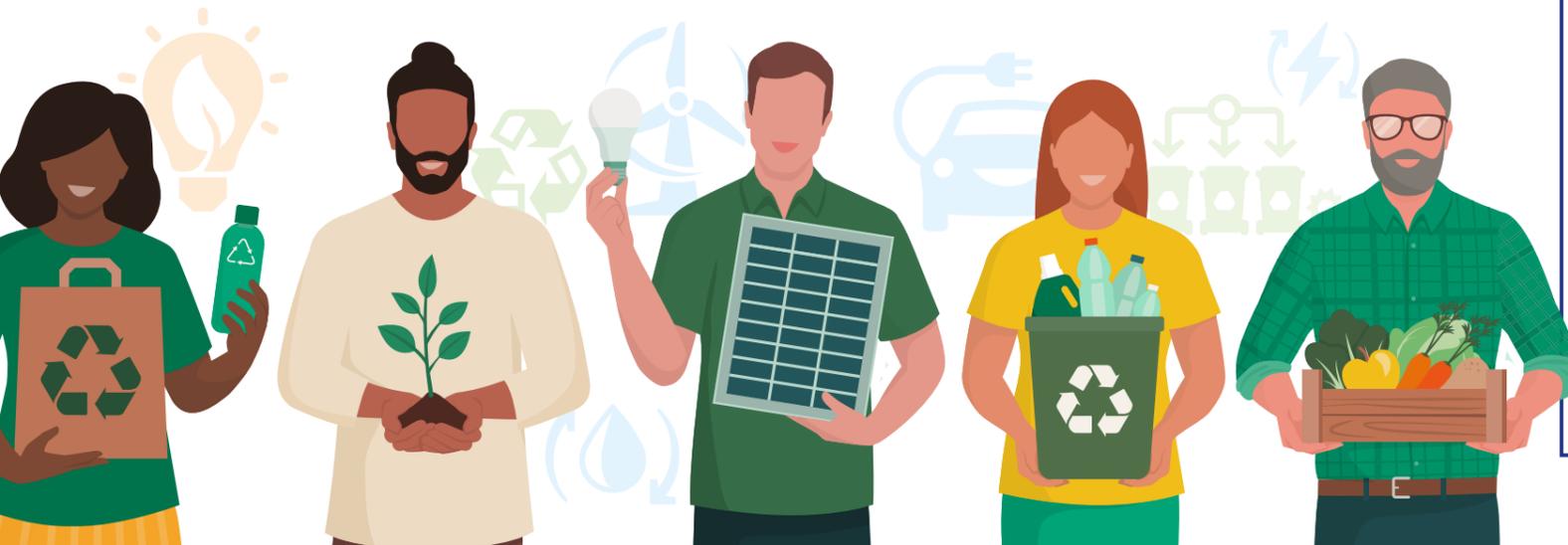
We will work with local residents, businesses and communities to support them in transitioning to a low carbon lifestyle. This includes engaging with people to understand what their barriers are, what is important to them, and what opportunities we have to facilitate change, as well as opportunities to provide education and information resources.

As part of this strategy we will develop an ongoing engagement plan, which will include regular, varied and effective communication, and will engage and assist our community in reducing our emissions and other environmental impacts, where we can, while remaining happy, healthy and thriving.

Part of people power is about seeking change from others, including central government, and also from business and finance. It requires others, as well as the council, to lobby and make their voices heard. To achieve net zero carbon, and a holistic approach to how we live, we will need significant change, not least to ensure that those most vulnerable do not fall through the cracks.

Skills and green jobs

To deliver the change we require, we need to build people's skills and knowledge, ensuring that there is appropriate training for the new skills required. We must create a space and a skilled workforce that allows green businesses to thrive in Watford. We are working with partners to develop a skills and employment plan, where green jobs and skills are a key strand.



Climate justice

As climate change will affect different people and places unevenly, it is likely to create inequalities, and may disproportionately affect those who did the least damage to the climate in the first place.

Climate justice means sharing the benefits and burdens associated with climate stabilisation equitably, and stems from a "polluter pays" approach. It is also about ensuring those who suffer most from the impacts of climate change are protected by those who most created the problem.

The Council will work with those in the borough, as well as regionally and nationally, to ensure those most disadvantaged can access help and support in mitigating for and adapting to climate change.

People Power across the strategy:

Throughout the rest of the strategy, to achieve the borough targets, action by others such as businesses, public sector organisations, individuals and community groups will be needed. Each of the four sustainability topics following includes targets for the borough: people power and for the council: leading by example.

Targets

- **10% of Watford Households signed up to Count Us In or equivalent by 2025; 25% by 2027; 50% by 2030**
- **Engage with 50% of fuel poor households on how they can reduce their energy costs by 2025; 75% by 2027 and 90% by 2030**
- **50% SME and large businesses signed up to sustainable business charter by March 2025; 75% by March 2027**
- **25% micro businesses signed up to sustainable business pledge - March 2025; 50% by March 2027**
- **Increase uptake of local climate initiatives by 10% year on year from 2024 to 2030**
- **Increase by at least 10% year on year opportunities for people to be engaged with educational or voluntary activities in this area**
- **Develop a skills and employment plan, with green skills and jobs as a key strand by 2024, implementing the targets and actions thereafter**

Watford Borough Council has committed to achieving net zero carbon by 2030 for its own operations, and will do everything in its power to enable the Borough to achieve net zero carbon by 2030.

Net zero carbon means that we will measure and reduce the greenhouse gases (GHGs) emitted through our operations and activities (both direct and indirect), and then, for those emissions which can't be eliminated, offset to achieve net zero.

Key greenhouse gases are carbon dioxide, methane, and nitrous oxide. There are a number of other greenhouse gases, such as refrigerants (Hydro chloro fluoro carbons HCHCs), some of which can be very potent. [see graphic] These will not be included in our calculations but we will seek to ensure that these GHGs are identified if we use or emit them, and eliminated or reduced and offset. Care will also be taken to ensure that any refrigerants are safely disposed of.

Current UK Government targets are:

- 68% reduction by 2030 based on 1990 levels
- 78% reduction by 2035 based on 1990 levels
- Net zero by 2050

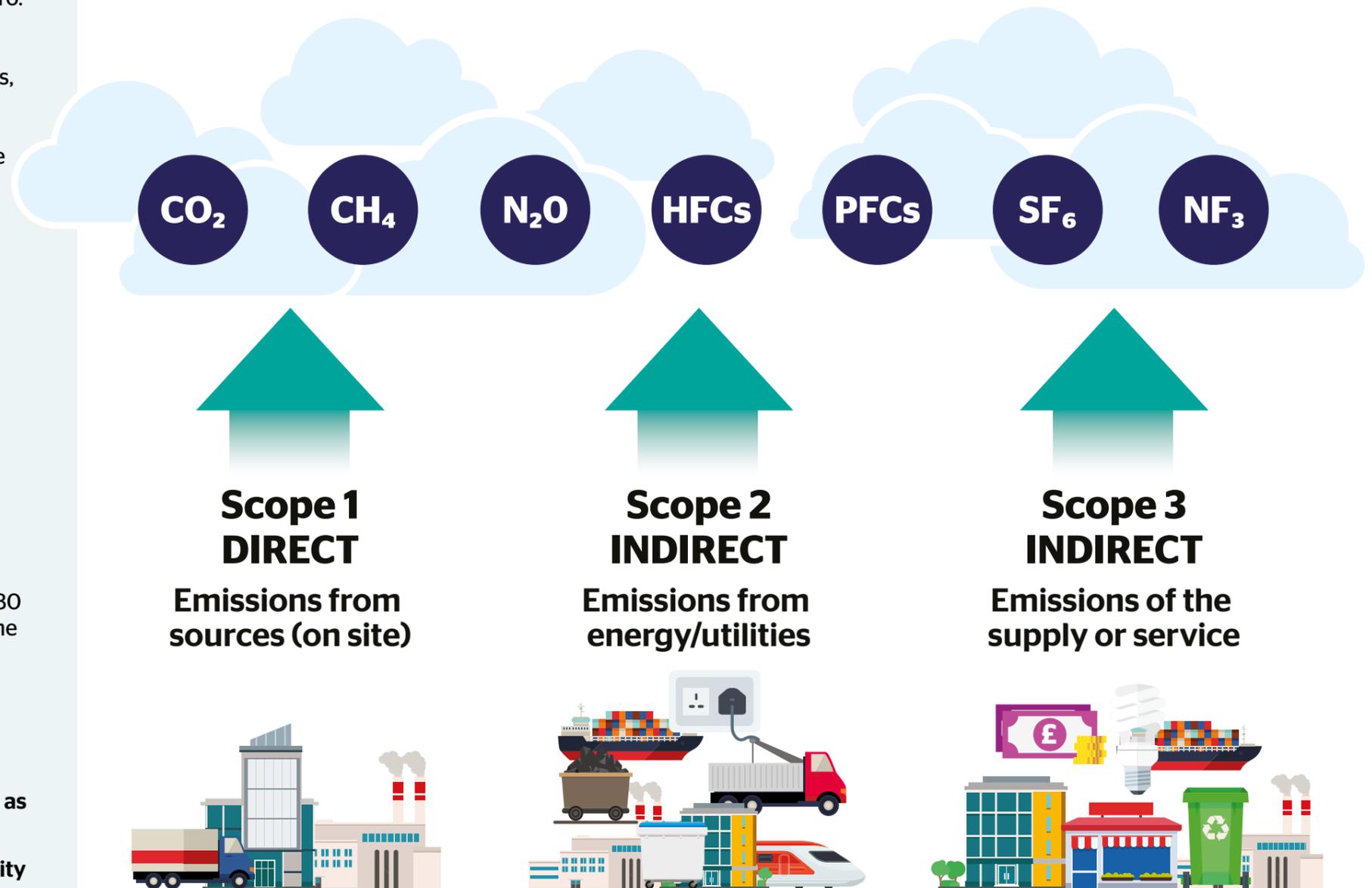
The Council - Leading by example

The Council's baseline energy emissions for 2019 - 20 are 1980 tonnes CO_{2e}. This does not include staff commuting and home working energy emissions, or broader scope 3 emissions, which we will also be seeking to reduce.

The Council's operations emit greenhouse gases in the following ways:

- Direct energy consumption, e.g. through heating (known as scope 1)
- Indirect energy consumption, e.g. through use of electricity (known as scope 2)
- Other indirect energy use - known as scope 3 - e.g. business travel and contracted out services
- Indirect to be included as soon as possible, and to be accounted for separately - staff travel to and from work, staff energy use for working from home
- Indirect from supply chain - this will be reviewed within the first year of the strategy and implemented from year 2

Achieving net zero



Carbon reduction within the Council will be achieved as follows:

- Each year a carbon budget will be set for the Council and each service will be clear on the implications for that service
- Carbon emissions will be measured and reported annually
- Support and resources will be made available to enable the Council to reduce its emissions and therefore meet the carbon budget. The carbon budget will be for direct energy use, indirect energy use, outsourced provision of services, purchases (to be agreed and defined) and business travel. It will not include staff commuting and home working energy, although those will be recorded and addressed separately
- More efficient use of resources
- Renewable energy and low energy technologies will be installed, making use of private wire systems where appropriate
- Electricity will be purchased on 100% renewable tariff. The Council will look to switch to low carbon, non-fossil fuel primary energy solutions
- The Council will seek to offset GHG emissions within the UK, using recognised and accredited providers. It will also ensure that its own tree planting can be recognised as carbon offsetting

As part of the Council’s commitment to net zero carbon emissions, all future property and other investments will need to consider the net zero carbon emission target, and existing property investments (where Watford Borough Council have a direct relationship with an occupying tenant) will be reviewed to see how our investment portfolio could contribute to the net zero carbon 2030 target. Investments need to be regenerative and generous (to the environment and to our society), while also being sufficient in terms of performance, returns, etc.

Targets

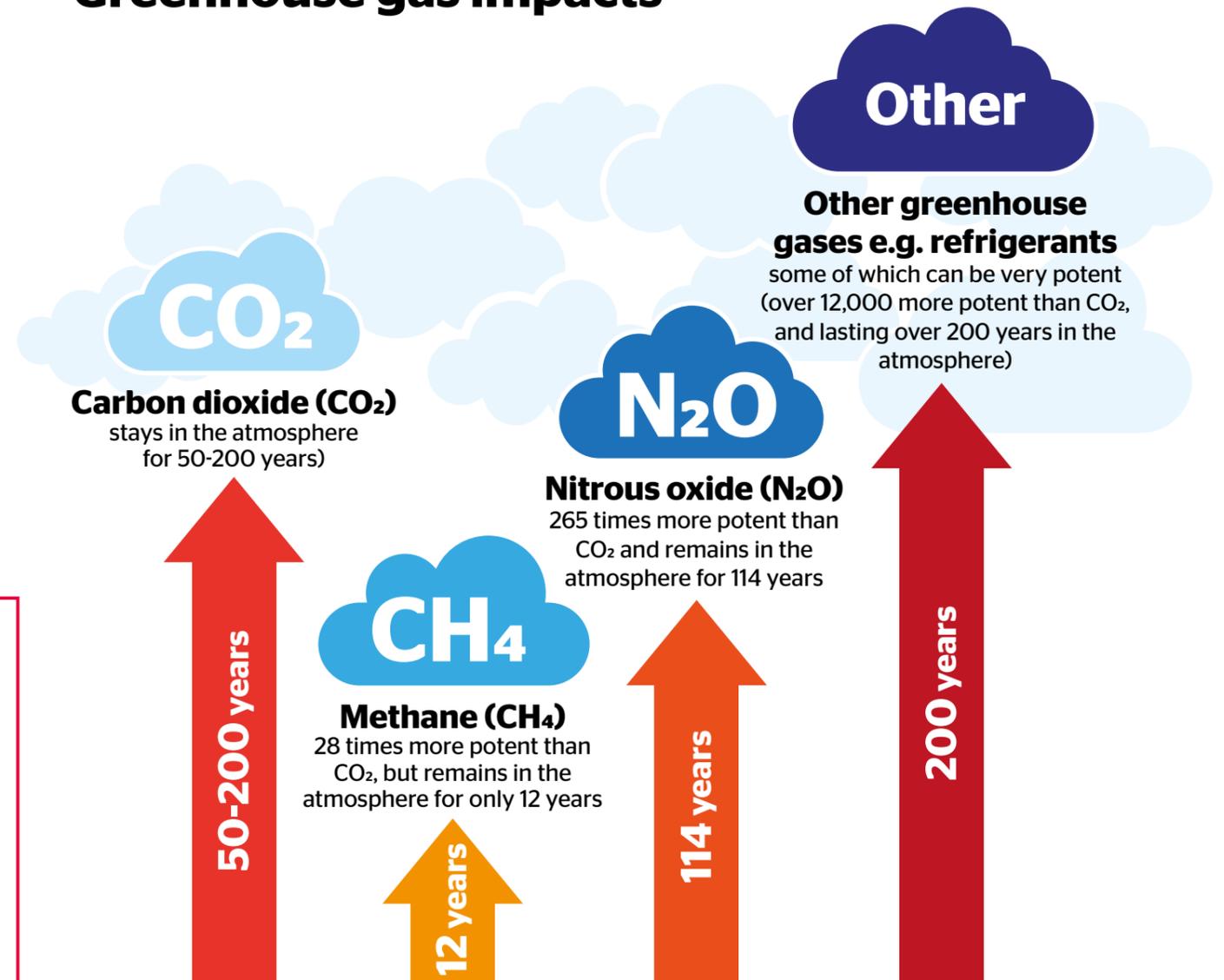
To achieve net zero by 2030 for the Council emissions it is proposed to have a stepped increase in emissions reduction

Year	Percentage reduction %	Percentage offsetting %	Total %
2025	22	6	28
2027	40	11	51
2029	60	19	79
2030	75	25	100

The offset will be achieved through tree planting and solar photovoltaic energy generation. Offsetting planning and implementation will begin from the start of the strategy, to both ensure we have sufficient in place by 2030 and to begin to mitigate carbon emissions, even while we are still reducing them.

The trajectory and practical savings have been developed through a third party study.

Greenhouse gas impacts



Borough - people power

Baseline data for the borough has been taken from the ScatterCities tool, which is based on the BEIS (Department for Business, Energy and Industrial Strategy) data. This baseline data is from 2019; the most up-to-date information available. Note: data is usually only available for Borough emissions from 2 years earlier, which has implications in how we measure the impacts of initiatives within the borough. The current use in Watford is 486.739 kilo (k) tonnes CO_{2e}; broken down as shown in the borough CO_{2e} emissions by sector chart.

Using similar data, The Tyndall Centre has established the carbon budget that can be fairly allocated to Watford to globally achieve less than a 2°C of warming by 2100, and the amount that therefore can be consumed in the borough between 2020 and 2100¹². They calculate this to be 2.4 Mega tonnes (Mt) CO₂, and recommend a 12.5% year on year reduction of emissions, to achieve zero or near zero emissions by 2043. At 2043 5% of the budget remains. This does not include shipping or aviation emissions.

To achieve net zero by 2030 for the Borough emissions, significant actions will be required by everyone, including residents, businesses and visitors to Watford, as well as significant offsetting.

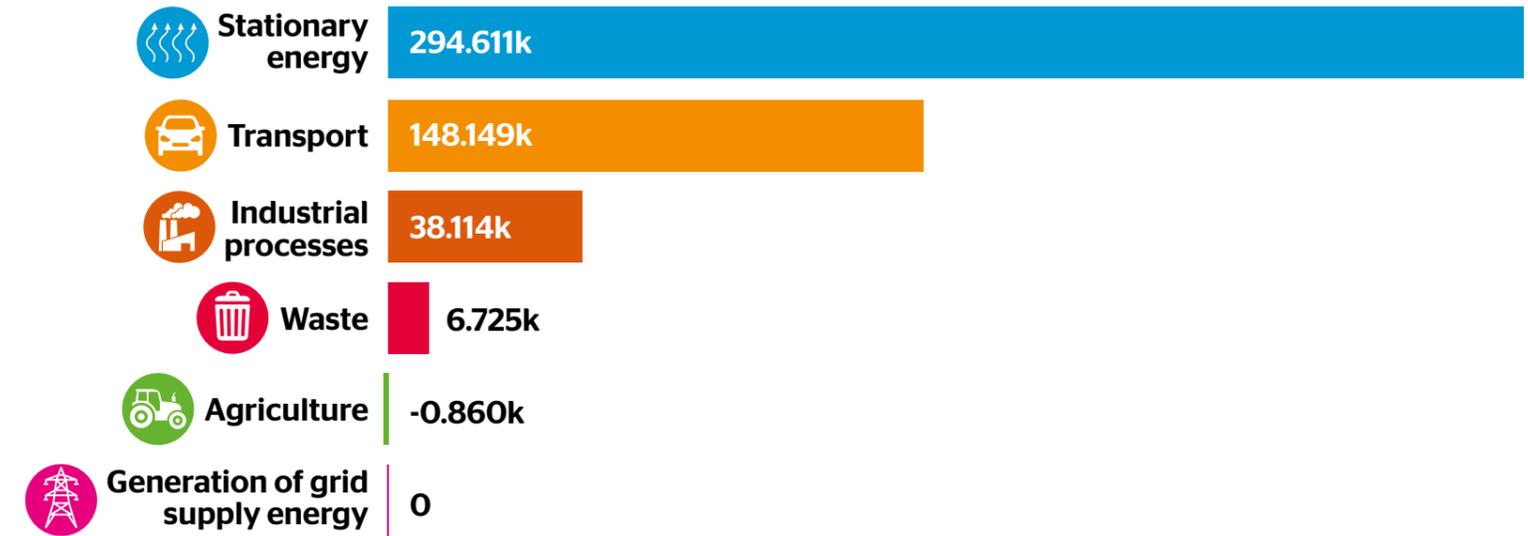
As part of development of this strategy, Watford Borough Council commissioned a study of the borough emissions to help inform and set context for residents and business. This study suggests an approach to reduce borough emissions, which is set out below. This requires the delivering of carbon reduction projects with a high level of ambition. In the study, the estimated emissions in 2030 are projected to be 215.462kt CO_{2e}, which is a 32% reduction from the 2019 baseline, hence significant off setting would be required to achieve the ambition of a net zero borough.

Targets

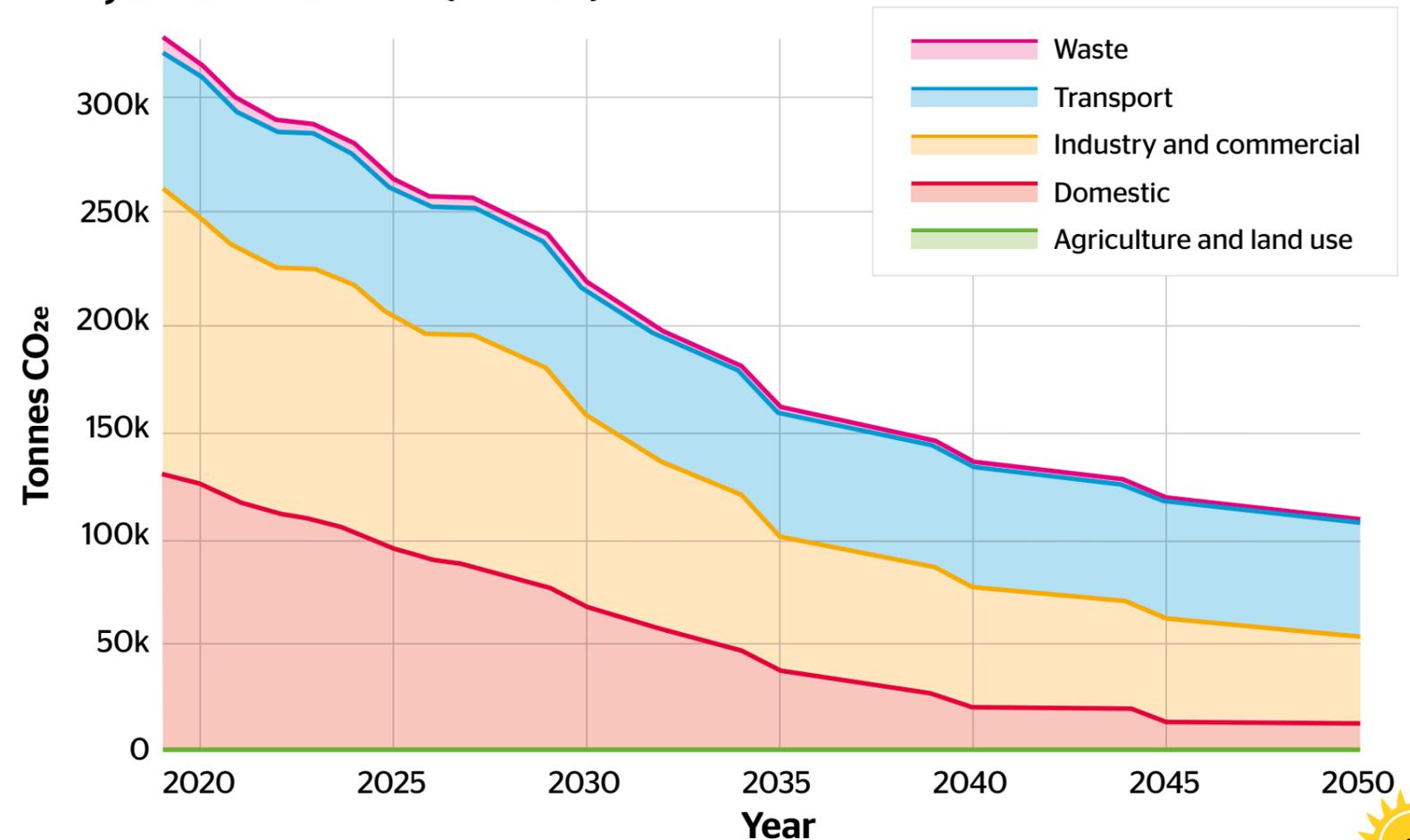
- Do everything in our power to achieve net zero carbon emissions (CO_{2e}) for the borough by the end of 2030

¹² <https://carbonbudget.manchester.ac.uk/reports/E07000103/>

Borough CO_{2e} emissions by sector



Current projected borough emissions summary by end use, 2020 - 2050 (tCO_{2e})



Following 2030, continued savings are required as well as continued off setting.

Transport and travel

How people travel around the borough and beyond is a major element of our carbon emissions, contributing around 30%. Watford has set out its approach over the next 20 years in Transforming Travel in Watford (TTIW). The Council will be looking at how it can reduce the transport impacts from its own operations, both relating to staff commuting, and business and fleet usage. This strategy does not seek to replace the work set out in TTIW, rather to ensure they are complementary, and to set overarching targets.

TTIW sets out modal shifts, rather than carbon emission reductions, and is focused on reducing short journeys by private motorised vehicles, which will have local benefits through reduced congestion, improved local air quality and better health; as well as being something the Council can influence.

Targets - Council: Leading by Example

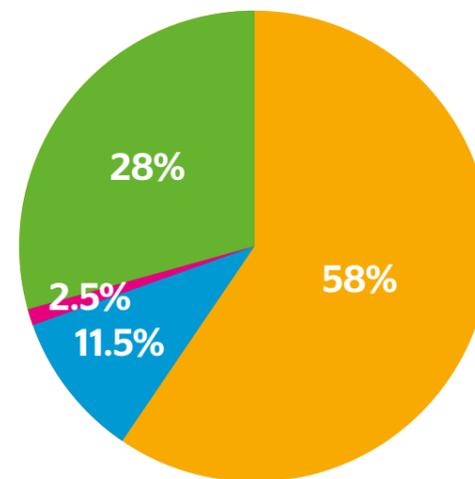
- Council business travel to transition to net zero by 2030, with the following interim reductions: 2025 - 50% reduction; 2027 - 75% reduction
- Staff travel and home working to transition to net zero by 2030, with the following interim reductions: 2025 - 25% reduction; 2027 - 50% reduction; 2029 - 75% reduction
- Council services transport fleet to transition to net zero by 2030, with the following interim reductions: 2025- 25% reduction; 2027 - 50% reduction; 2029 - 75% reduction

Targets - Borough: People Power

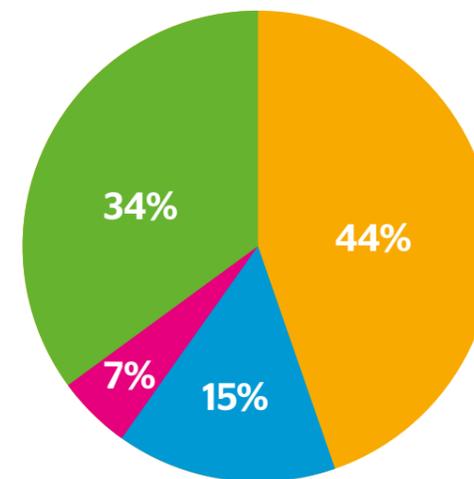
- Modal shift away from private cars - Public transport shift from 11.5% to 15%; cycle modal shift from 2.5% to 7% and walking modal shift from 28% to 34% by 2030

How people travel in Watford

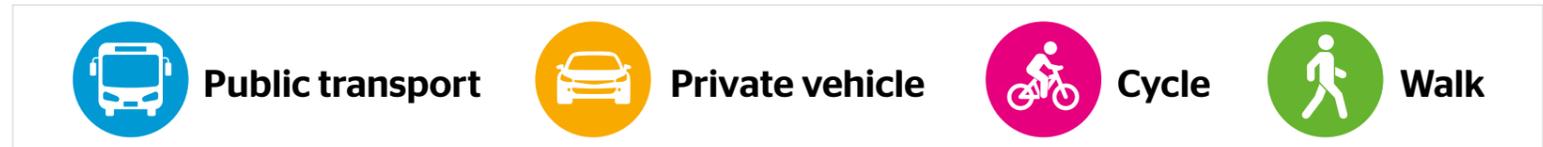
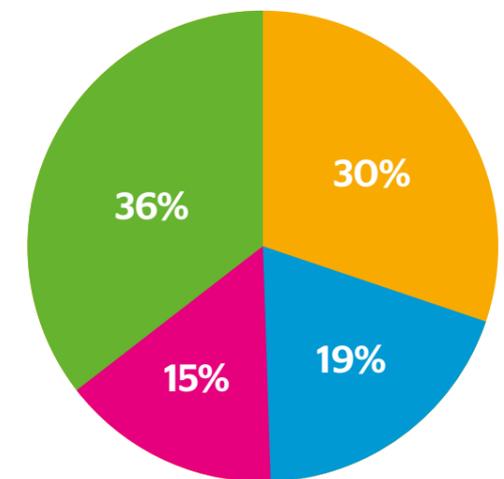
Where we are now



2030 target



2041 target



Built environment

We spend around 90% of our time in buildings, and they have a significant impact on our CO₂ emissions. The energy efficiency of new buildings has been improving through building regulation and planning requirements. Our Local Plan will continue to champion these improvements within the legal parameters allowed.

The energy efficiency of existing buildings is a significant historical issue, and the Council has been working with partners to retrofit some residential buildings to reduce their energy consumption. It will seek to continue this work, within the resources available, while lobbying the government to ensure all buildings are adequately insulated, taking a fabric first approach (improve the thermal properties of the building as much as possible before improving the building services).

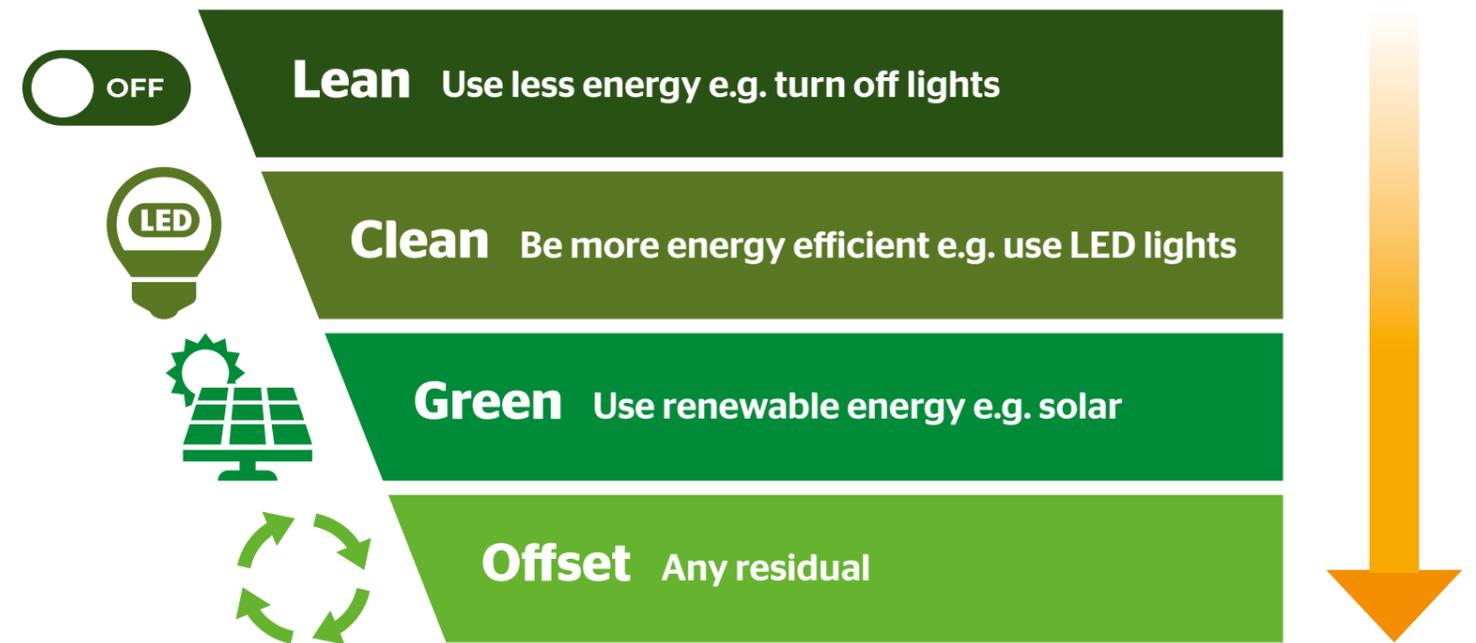
Targets - Council: Leading by Example

- Council buildings net zero by 2030 - i.e. scope 1 and 2 for our buildings

Targets - Borough: People Power

- Encourage and facilitate developers to build all new buildings to net zero standards by 2030
- Encourage and facilitate existing building owners to review their buildings for energy efficiency improvements, and implemented where practical by 2030
- Facilitate the means for all fuel poor dwellings to have an EPC rating of C or higher by 2030 where practical
- Facilitate rented properties to have an EPC rating of C or higher by 2030 where practical
- Encourage all dwellings to have an EPC rating of C or higher by 2030

Energy hierarchy



Nature and ecological restoration

The UK is one of the most biodiversity-depleted nations in the world with on average about half of its biodiversity remaining. We consistently rank in the bottom 10% of the world for 'biodiversity intactness,' and most profoundly in the South-East of England. Biodiversity provides us with clean air, water, food, fuel, fibre and optimal living conditions, and its loss poses a significant threat to life in this country. Maintaining biodiversity is a complex matter, affected by factors such as agriculture, development, pollution, climate change, fragmentation of habitat, and large declines in insect biomass (the volume/abundance of insects).

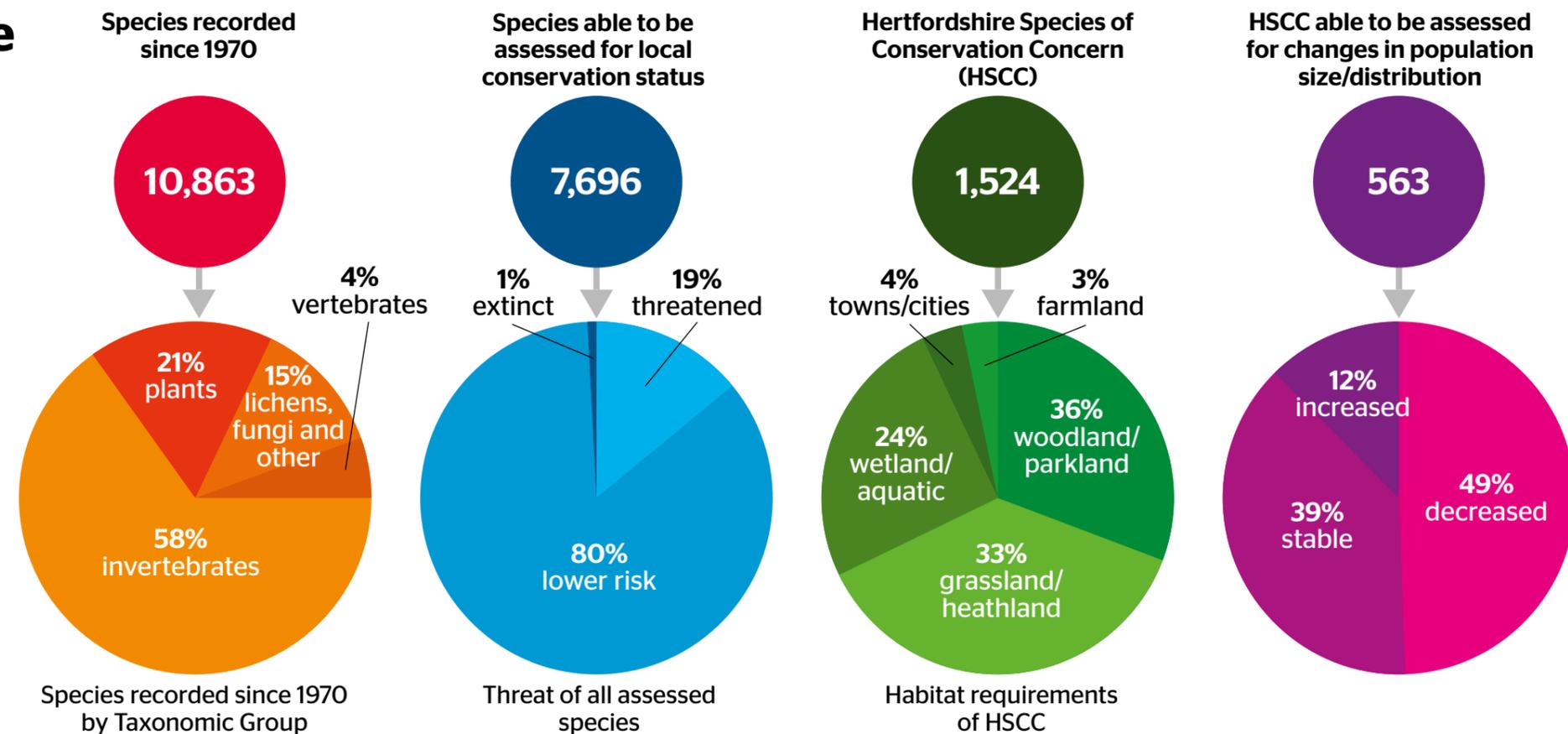
The latest (2019) UK State of Nature report¹³ found that the abundance and distribution of the UK's species has, on average, declined since 1970 and that this decline has continued in the

last decade, despite conservation efforts. Similarly, Hertfordshire State of Nature shows the local position¹⁴.

The UK is home to 85% of the world's chalk rivers, unique habitats of which two run through Watford: the River Colne and River Gade, both of which are in 'moderate' condition as assessed under the water framework directive.

To halt biodiversity loss will require effective policy and strategy to deliver spatial planning, protection, land management and education.

Hertfordshire state of nature 2020



¹³ <https://nbn.org.uk/stateofnature2019/reports/>

¹⁴ <https://www.hertswildlifetrust.org.uk/stateofnature>

Nature

Watford also has a significant number of parks, green spaces and other areas of biodiversity, including 17 green flagged parks. The Council continue to demonstrate best practice in how it manages these, encourages wilder areas and works with residents to create wildlife refuges and corridors in their gardens and local areas.

The 2021 Environment Act set out the requirement for 10% biodiversity net gain for all new planning applications. This could have a beneficial effect in Watford. Hertfordshire County Council (HCC) are leading the development and management of the Local Nature Recovery Strategy, and Watford Borough Council will work closely with surrounding districts to ensure it contributes to nature recovery locally, along with the wildlife trusts, who have published their own strategy¹⁵.

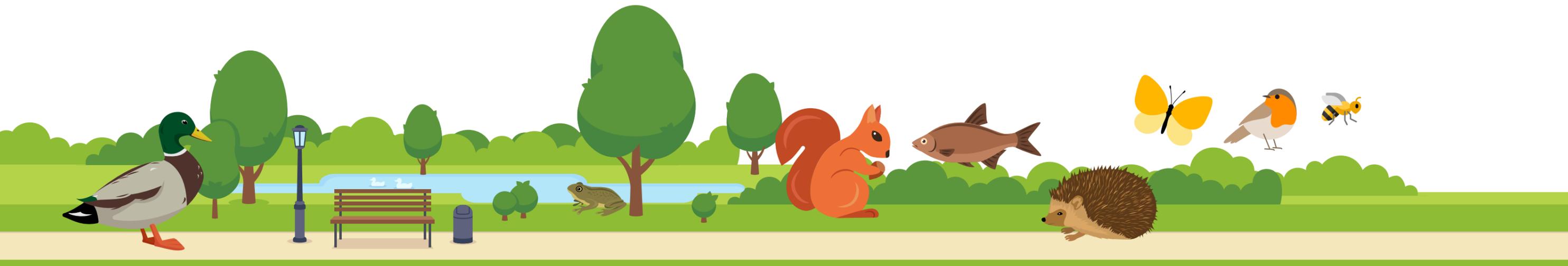
While Watford has good quality green spaces, it is a very urban borough, with 21% of households without a private garden. We have 23.9m² of green space per capita, and the average walking distance to a park is 380m. For comparison, only 13% of households in Stevenage and Luton are without a private garden. Stevenage has 22.1m²/capita of green space on average 589 meters away, while Luton has 17.4m² of green space/capita, 605m away. During the Covid pandemic (2020 - 21), it became clear to all how important access to green space or private outdoor space is, for our mental health¹⁶.

Targets - Council: Leading by example

- 30% by area of our green spaces managed to support nature by 2030; 20% by 2025
- 30% by area of our corporate estate green spaces managed to support nature by 2030; 10% by 2025

Targets - Borough: People Power

- Biodiversity net gain of 10% or greater for all new development, with any offsetting occurring within the borough or adjoining boroughs/districts by 2030
- Minimum canopy target 25% by 2030; interim target of 20% by 2027¹⁷
- Work with partners to facilitate Rivers Colne and Gade in the borough meeting the Water Framework Directive (WFD) good standard for biodiversity and at least moderate for chemical water quality by 2030
- Maintain or improve access to private outdoor amenity space (e.g. gardens, balconies you can go out on, private communal spaces)
- Maintain or improve the green space per capita and distance from green space and improve where practical



¹⁵ <https://www.hertswildlifetrust.org.uk/Wilder2030>

¹⁶ <https://citymonitor.ai/community/green-space/urban-green-space-pandemic-diverse-communities> ; <https://friendsoftheearth.uk/nature/access-green-space-england-are-you-missing-out>

¹⁷ According to Urbantreecover.org we are currently 18.2%

Water

Water will increasingly become an issue, as weather patterns change, both through drought and heavier rainfall. This will have knock-on effects for our chalk or chalk-fed rivers, which are fed by ground water. Watford is in a low rainfall area, and so is already under water stress.

In addition, water is abstracted from the groundwater to supply homes and businesses in Watford, which also reduces the flow of the river and impacts on ecosystems and biodiversity. Watford has one of the poorest records of water conservation in the country. In Hertfordshire, we use, on average, 150 litres/person/day (l/p/d) compared with a national average of 142 l/p/d¹⁸. The UK is one of the higher users in Europe. New homes can be designed to achieve in the order of 80 l/p/d, with the local plan requiring 110 l/p/d or less. Reducing our water usage not only reduces the impact on our local watercourses and biodiversity, it also reduces our GHG emissions, due to the energy required to treat the water pre- and post-use, and potentially reduces the cost.

The heavier rainfall will have the potential to create flash floods especially after a prolonged period of dry weather, and not always where they have historically been. If road drainage systems can't cope, then more flooding is likely to occur. To address these risks, more natural rainwater management systems need to be considered, such as ponds or swales. These allow water to collect and then seep through the ground. Where this is not possible, other systems which allow water to slowly seep into the ground rather than discharge into the sewerage system need to be considered. Rainwater collection for use in gardens, homes and businesses will also be looked at.

Targets - Council: Leading by example

- Council to ensure separate water monitoring for council activities by 2025
- Council to achieve water usage of 12 l/employee/day by 2030 for office based activities. An interim target for 2027 will be set in 2025¹⁹
- Ensure sports facilities, trees and amenity planting are primarily irrigated by rainwater where practicable by 2030

Targets - Borough: People Power

- Support residents to achieve an annual average residential use of 110 l/p/d by 2030; interim targets of 145 l/p/d by 2025 and 130 l/p/d by 2027

Pollution

In managing and restoring nature and ecology, we need to be mindful of pollution, including air, ground, water and light pollution. The Council is already proactive in this area and, for instance, will continue its good work on monitoring air pollution and identifying where interventions are required. The council is also addressing excess artificial light both in its own services and within the borough.

Targets - Council: Leading by example

- For the council to meet the International Dark-Sky Associations 'Five Principles for Responsible Outdoor Lighting' across all council-operated properties by 2025 (darksky.org)

Targets - Borough: People Power

- All Watford to meet national Air Quality Objectives and Air Quality Standards Regulations



¹⁸ <https://www.watfordobserver.co.uk/news/19322364.giant-bathtub-watford-residents-asked-lower-water-usage/>

¹⁹ CIRIA C657 Water Key Performance Indicators. 2006

Food supply, security and waste

Food Waste is a major cause of environmental degradation. 10% of UK GHG emissions in 2019 are attributed to agriculture²⁰. Globally, in the period between 2010 and 2019 agriculture, forestry and other managed land use accounted for between 13% and 21% of anthropogenic GHGs. Around 45% of that was the result of deforestation.

In Watford we introduced a separate food waste collection in September 2020. Previously it was collected with garden waste. While we don't yet have figures for food waste collection specifically for 2021/22, due to the changes in recycling (including food waste) Watford's recycling rate went up to 50% for the first time in 2020/21.

Different foods produce different GHG emissions, and impact can depend on the way food is farmed or produced, particularly the resources needed to feed livestock. Probably the simplest approach to eating sustainably is to eat seasonal, cook from fresh and source local; more vegetables and less meat. The graphic below illustrates the difference in embodied emissions in common protein sources.

With agriculture and food growing having a significant impact, it is imperative to reduce our avoidable food waste. Reducing our food waste has a number of benefits, not least reducing the cost to us, but also reducing the amount of food required to be produced and disposed of, and the land and energy these processes require.

Food security is increasingly going to become an issue as climate patterns change. Reductions in fossil fuel use, food miles and land availability will lead to changes in global supply. We need to look at how to increase the resilience of our food supply chain and increase its diversity, while ensuring that land is managed equitably. In this way we can ensure

the potentially competing demands of food growing, wild spaces and energy provision (e.g. biofuels, solar farms, wind farms) are effectively addressed.

While Watford has good allotment provision, it does not currently have much other food growing space, whether agricultural or horticultural. As an urban borough, it also does not have the hinterland to support the town within its own boundaries.

It is important to reconnect people to where their food comes from, and provide a way for all sectors of society to engage. This is being successfully achieved through the allotments, and can be extended through community growing initiatives such as Incredible Edible, community gardens, community allotments and market gardens, as well as edible landscaping.

Targets - Council: Leading by example

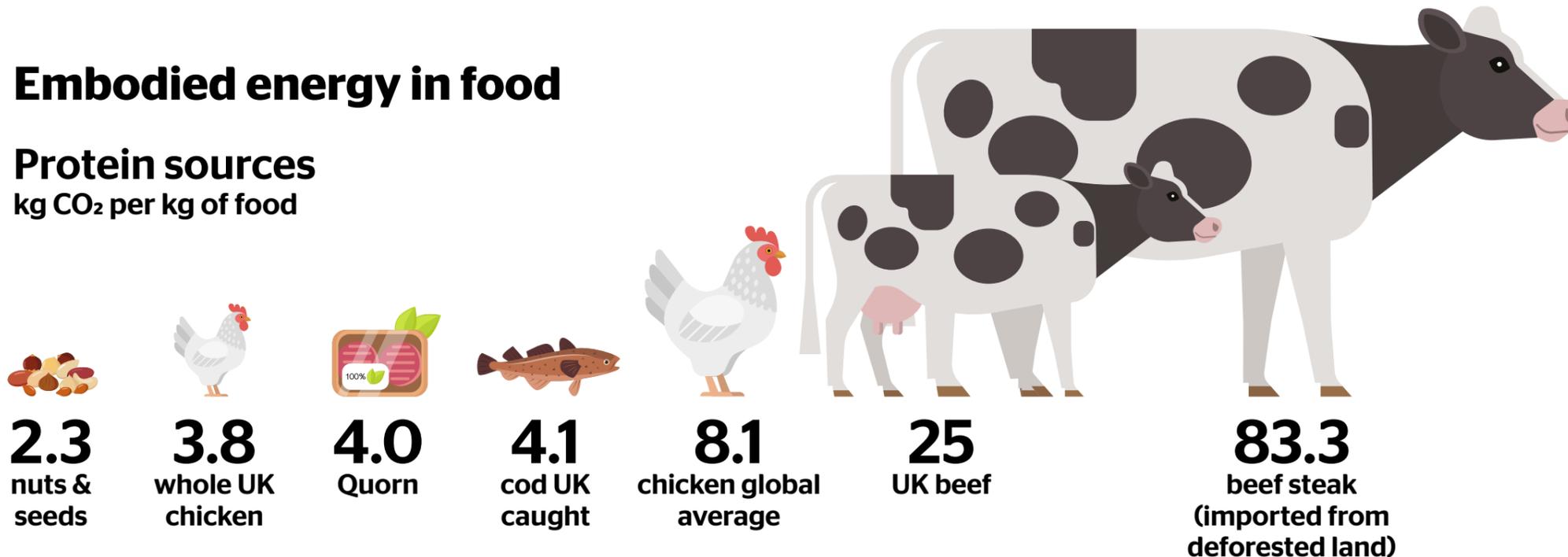
- WBC café/ concession operators to have in place an approach to increase plant based options and provide information on the carbon implications of food choices on the menu by 2030; this to be a requirement for all new operators by 2025

Targets - Borough: People Power

- 60% of waste food collected to be recycled 2030; with interim targets of 50% by 2027
- Improve the ability of those in the borough to grow food, year on year

Embodied energy in food

Protein sources
kg CO₂ per kg of food



²⁰ [https://www.gov.uk/government/statistics/agri-climate-report-2021/agri-climate-report-2021#:~:text=1.7%25%20of%20carbon%20dioxide%20\(CO2,relate%20mainly%20to%20fuel%20use](https://www.gov.uk/government/statistics/agri-climate-report-2021/agri-climate-report-2021#:~:text=1.7%25%20of%20carbon%20dioxide%20(CO2,relate%20mainly%20to%20fuel%20use)



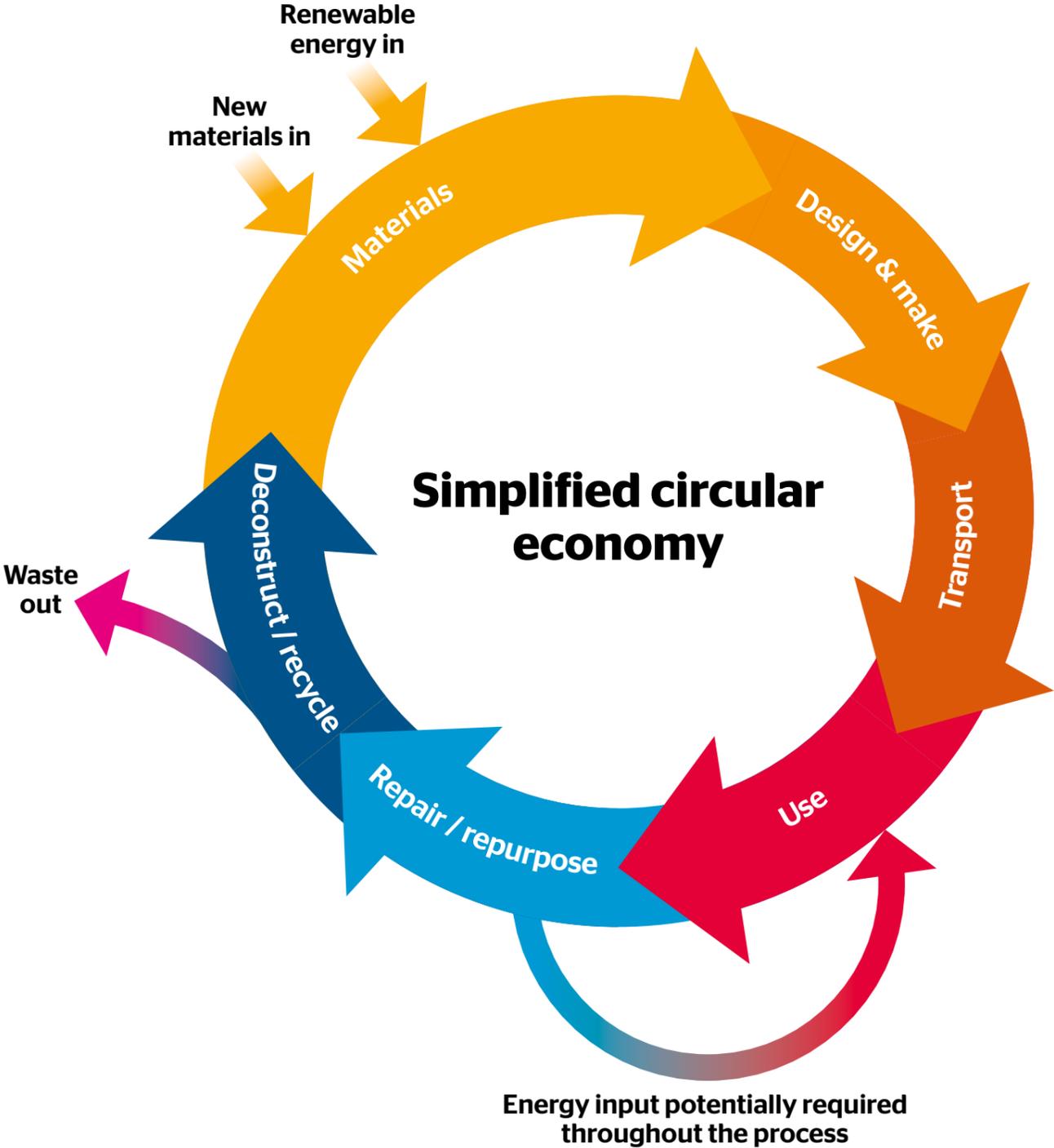
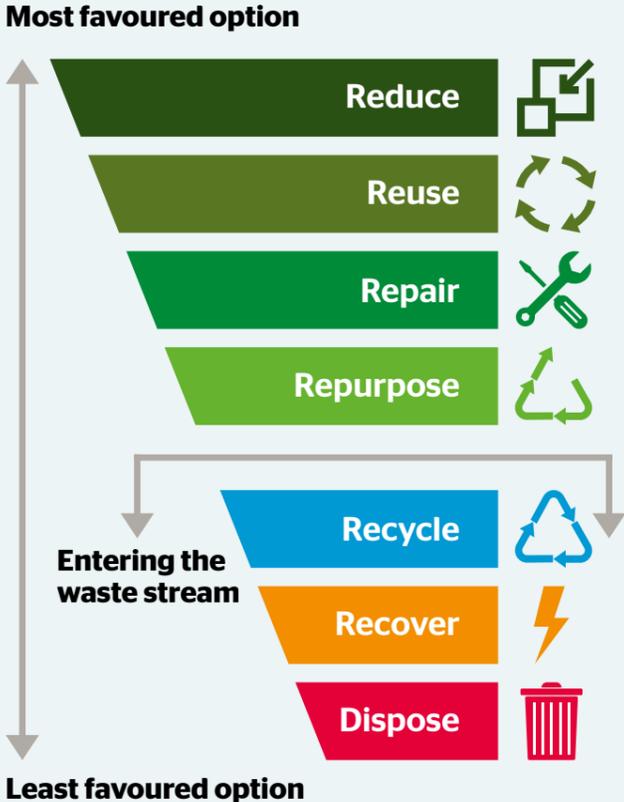
Responsible resource use

A key part of our environmental impact comes from the things we consume, whether that is fast fashion, technology, food or our leisure activities. Food is considered in the Nature and Ecological Restoration section, and here we will consider all other areas of consumption.

As a society, we need to be making better use of resources, consuming and buying only what we need. The things we produce and buy should be reusable, repairable and recyclable.

We need to consider responsible resource use in two ways: the waste hierarchy and the circular economy.

Waste hierarchy



Council - leading by example

Responsible resource use for the Council is about making sure that the appropriate materials and products are procured, which are designed to operate for the appropriate lifetime, can be repaired, and then recycled effectively after use.

Within its own operations, the Council will seek to reduce the amount of waste generated, with materials being reused or recycled where ever practical. It will consider end of life/ disposal of goods in its purchasing decisions. It will also work with staff to inform them of the importance of reducing material use and waste, and the actions they can take.

The Council introduced a new purchasing strategy in 2022, with significant environmental requirements. This will be reviewed and updated as required over the life of this strategy.

Targets

- Council-generated waste reduced to as near zero as practicable by 2030
- Ensure the Council itself is recycling 60% of waste generated by 2025 and 70% by 2028

Borough - people power

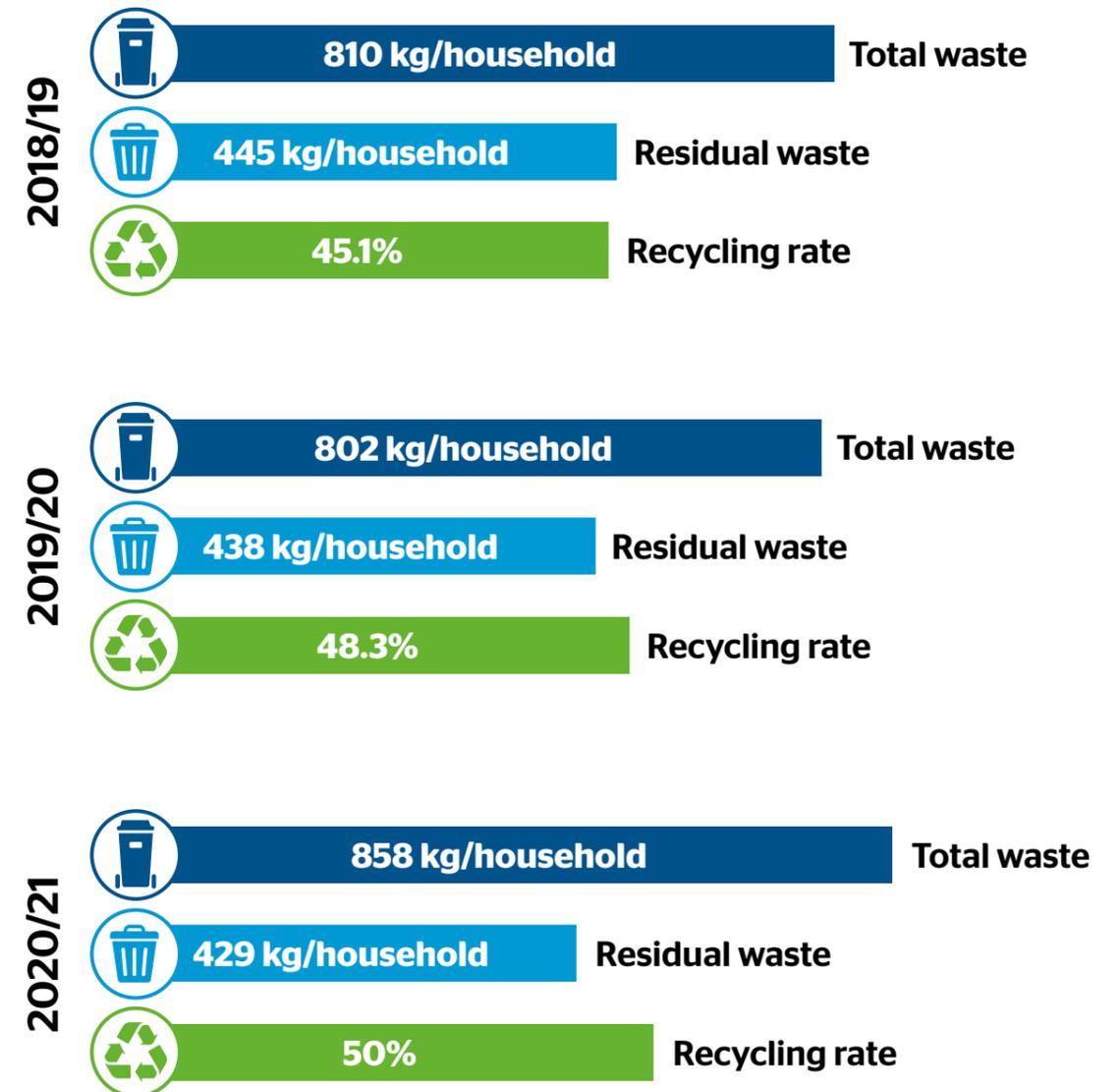
In Watford, in 2020/21 the average household generated 858kg of waste, which was up from 802 the previous year. We recycled 50% of the waste generated, up 4.7% (the greatest increase in Hertfordshire) and the first time Watford has reached the 50% mark. The national target is to achieve at least 65% recycling rate by 2035, and it is estimated if all recyclable material was collected we would achieve just under 70%. To achieve this in Watford will require borough-wide action, and facilitation by the Council and its contractor.

While we are improving in household recycling, we also need to reduce the total amount of waste generated. In general it requires less resources to recycle something than to make it from virgin material, however, that is still more than is required if we didn't need to make it at all. Some materials are also not infinitely recyclable, and degrade through the recycling process.

Targets

- Borough is recycling 60% of its residential waste by 2030; with an interim target of 54% by 2027
- Residential borough waste reduced by 50% by 2030, based on 2019/20
- Businesses to reduce their waste by 50% by 2030, based on 2019/20

Residents waste and recycling rate



Average household waste generated/recycled

Adapting to change

Even if we meet our 2030 commitment within the Borough, the UK meets its 2050 commitment, and globally we ensure an average temperature change of 1.5°C or lower by 2100, we will still be facing changes: more extreme weather and impacts on global networks which will filter to the local level - especially related to food, water and energy.

We can see this happening already. Previously rare “100 year storms” are happening more regularly, and the Thames flood barrier is being used with increasing frequency in response to rising sea levels²¹. Sea level has risen by approximately 15cm between 1911 and 2018, with the rate of rise accelerating. It is predicted it could increase by 1.15m in 2100 compared to 1990²². Recent reports have suggested that we have locked in 27cm of sea level rise from the Greenland Ice shelf regardless of future warming²³. In 2021 the global average temperature was 1.1°C²⁴ above pre-industrial levels and we have already seen temperatures at unprecedented levels, such as the 2022 maximum UK temperature of 40°C.

Put simply, in Watford we will have heavier rainfalls, probably on drier ground, so more flash floods are likely. We will have more extremely hot days, where it is difficult to keep cool, with the potential for heat-related deaths, fires, and failures of infrastructure. Very urban parts of Watford will suffer more than more suburban parts, or rural Hertfordshire, due to the urban heat island effect, caused in part due to reduced vegetation and increased paved and built-over areas. We will also have more water restrictions, as rain does not seep into the aquifers and recharge them.

According to the UK climate change committee, the top 6 risks from climate change in the UK are flooding, overheating, food security, water supplies/drought, threat to nature, and, new and emerging pests and disease²⁵. In recent years we have already seen the impact a new disease can have on our society.

This demonstrates, that even if we limit warming to below 1.5°C, we will have to adapt to the changes in climate. This will include the need to:

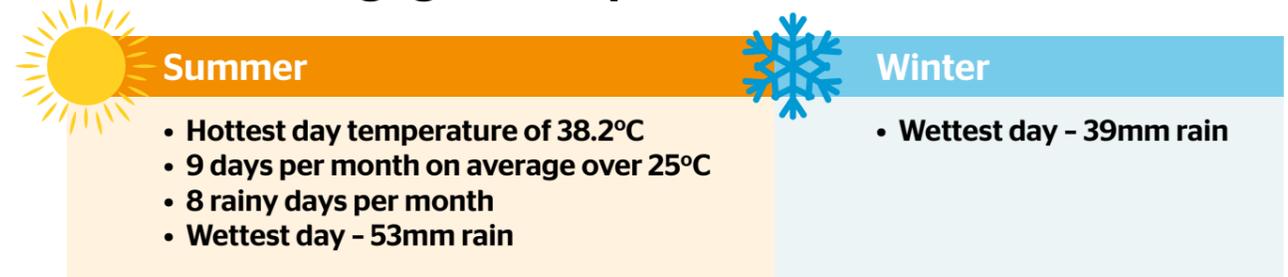
- Ensure we can maintain a cool place to go during the hottest weather
- Be able to deal with the flash floods from the heavier rain fall
- Adapt to the consequences of fewer rainy days, and the effect that has on our rivers, water supplies and food supplies

BBC’s climate change site, based on Met Office data, shows for Watford

Average over last 30 years



2°C rise of average global temperature



4°C rise of average global temperature



²¹ <https://www.gov.uk/government/publications/thames-estuary-2100-te2100/thames-estuary-2100-key-findings-from-the-monitoring-review>

²² What 1m sea level rise might look like: https://coastal.climatecentral.org/map/7/-0.3621/52.7978/?theme=water_level&map_type=water_level_above_mhhw&basemap=roadmap&contiguous=true&elevation_model=best_available&water_level=1.0&water_unit=m

²³ <https://www.nature.com/articles/s41558-022-01441-2>; <https://www.theguardian.com/environment/2022/aug/29/major-sea-level-rise-caused-by-melting-of-greenland-ice-cap-is-now-inevitable-27cm-climate>

²⁴ <https://news.un.org/en/story/2022/05/1117842>

²⁵ <https://www.theccc.org.uk/publication/independent-assessment-of-uk-climate-risk/>



Council - leading by example

Adaptation will be required across all sectors of the Council and the community. As part of its commitment to lead by example, the Council will ensure that climate change and ecological degradation are included in its risk register, and adaptation measures are identified and adopted as necessary.

As part of this adaptation, we need to ensure that we support the development of resilient communities, both in terms of physical infrastructure and social infrastructure.

Targets

- Corporate and service risk registers explicitly address climate change, and report on climate incidents by 2024
- All our operations and services ready for future climates (based on most up to date climate projections for the UK) by 2030
- Ensure that the Council has addressed the Government's 8 priority risk areas by 2025²⁶
- Ensure that information and education is available about climate change, risk and adaptations for local people and groups by 2024, and regular (at least annual) updates are sent thereafter

Borough - people power

Across the borough, businesses, community groups and individuals need to consider the risks from a changing climate, what they can do to mitigate those risks, how they need to adapt their practices to minimise the risks and what they can do to help others adapt and survive as the climate changes.

Targets

- Facilitate the Borough to be ready for future climates by 2030
- Encourage and facilitate all housing providers and developers to provide a climate change risk register, guidance by 2025, with actions to mitigate and actions for adaptation by 2030



²⁶ <https://www.gov.uk/government/publications/uk-climate-change-risk-assessment-2022>

Governance

To ensure that the strategy and delivery is effective, it needs to have the correct governance. This needs to include:



Internal governance



Accountability to councillors and the community



Transparency



Scrutiny

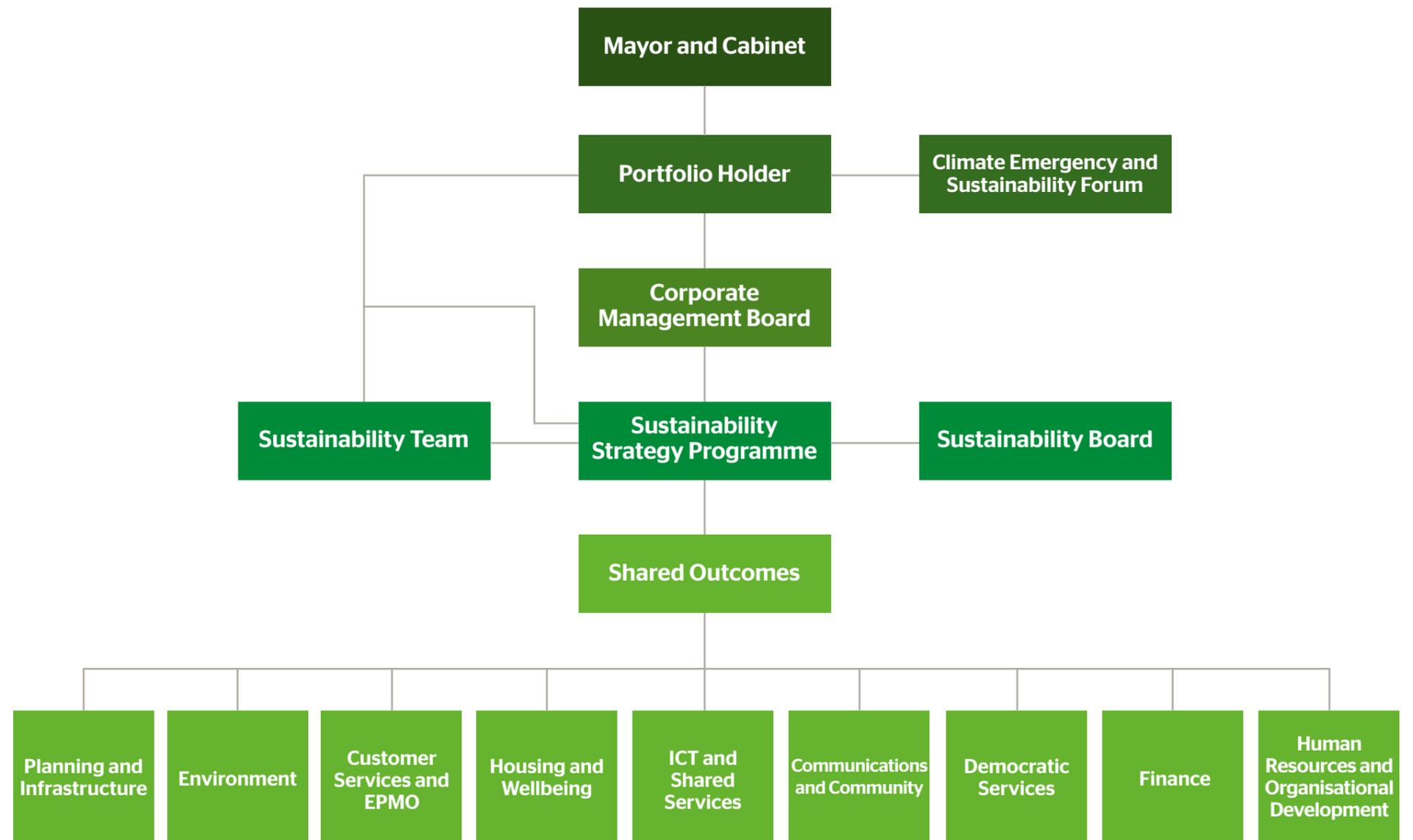


Reporting



Reviewing and updating

Internal governance



The Environmental Strategy will be owned by the Portfolio Holder for Sustainability and internally by the Sustainability Board. The latter will meet monthly. However, sustainability is a cross cutting issue with actions required by all within the Council.

The Environmental Strategy progress will be reported quarterly as part of the existing Performance and Progress reporting to Cabinet and Overview and Scrutiny Committee. There will be a quarterly agenda item at Corporate Management Board on sustainability to ensure key projects and progress are discussed.

In addition, there will be a specific annual agenda item at cabinet level on sustainability to discuss the review and revision of the delivery plan. There will also be a regular away day of key people - officers and councillors, to ensure that the strategy and direction remains robust and integrated.

Where shortfalls to targets are identified, these will be addressed at the appropriate level, and the delivery plan will be adapted accordingly.

The role of Portfolio Holder for Sustainability will be extremely important in ensuring that changes are integrated and delivered across everything the Council does.

Relationship of this strategy to others:

- Carbon, water and ecological targets within this strategy to override all strategies
- Through carbon budgets etc. this will embed in to other strategies
- Transport will be primarily governed through the Transforming Travel in Watford Strategy
- As new economic development and well-being strategies are developed, they will incorporate the climate change and ecological emergency requirements into their approach

Accountability to Councillors and the community

The role of Portfolio Holder for Sustainability is critical in to ensure accountability. Meetings between the sustainability team and the Portfolio Holder will take place at least monthly.

Three times a year, the Climate Emergency and Sustainability Forum (CESF) will meet, chaired by the Portfolio Holder for Sustainability and comprised of councillors and officers. This will be a forum for presenting progress and projects, as well as gathering feedback and ideas.

Three times a year, and following on from the CESF, there will also be a public Sustainability Forum. This will be chaired by the Portfolio Holder for Sustainability, with dates agreed on a yearly basis (in line with the dates agreed for the CESF). It will be open to all members of the public to discuss the Council's progress and approach to sustainability, providing feedback and ideas. It will not be a decision making forum.

Finally there will be an annual item in the Cabinet/Council meeting to update and discuss progress. It will be agreed at the start of the strategy which meeting this will be and reviewed as required.

The council will set up a climate critical friend panel, made up of 8-15 members, representing the borough. This will provide input into the biennial delivery plan and help to facilitate change in the borough.



Reporting

There are two types of reporting:

- **Internal reporting takes place at different levels and detail, ensuring that it is possible to determine our performance in relation to our target. This reporting will fit within the existing Council reporting structure, and make use of the existing Business Intelligence system. This has been described above.**
- **External reporting - producing easily accessible, publically available reports**

External reporting will take place annually. The reports will include:

- **Carbon emissions - for both the Council (and its investments) and the borough, and showing how this is performing against target**
- **Water usage for the borough and the Council**
- **Biodiversity - initially this will relate to the amount of green space managed for nature and the canopy cover. Once the new biodiversity strategy is developed with an appropriate metric related to the ecological emergency and how it can be addressed in Watford, we will incorporate that into this strategy**
- **Waste**
- **Progress on delivery plan**

Review and updating

The strategy document is an 8 year strategy, and it is anticipated that the key targets and approaches are robust enough to be appropriate for this timescale. However, there will be a review and consultation at the end of the second delivery plan to ensure it is still current and meets aspirations.

Delivery plan

The delivery plan is the working document, and will be a rolling two year plan, which will be reviewed, updated, and reported on annually. Update on progress will be given to the sustainability board at least quarterly, the Corporate Management Board and Strategic Portfolio Holders at least every six months, and annually to the Cabinet or Council.

An annual update will show actions delivered against short and medium term projects. It will also set out priorities for actions identified, and ways of determining the priorities.

While it may be a two year plan, the delivery plan may contain projects which last longer than this timeframe. These projects will be included in subsequent delivery plans as necessary.

The delivery plan will include prioritisation of actions, along with costings, resource requirements, timeframes and completion dates.

Within the delivery plan there will also be included some 'experimental' or pilot projects, requirements, timeframes and completion dates.





Watford's Environmental Strategy:

Addressing the Climate and Ecological Emergency

2023 - 2030

www.watford.gov.uk/sustainablewatford