

Waterford City and County Council

Climate Action Plan 2024-2029

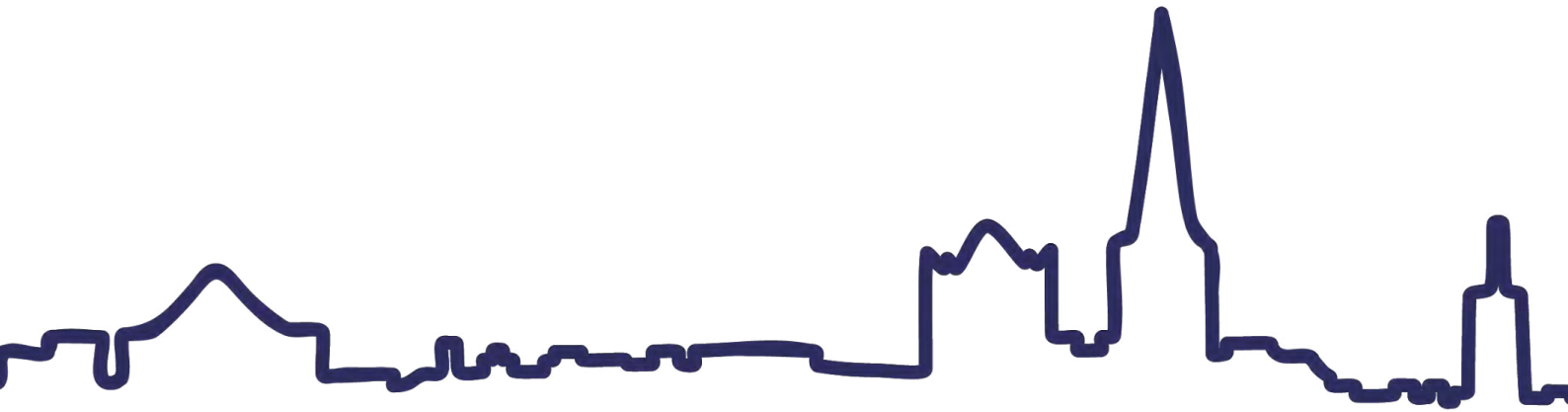


Comhairle Cathrach
& Contae Phort Láirge
Waterford City
& County Council

Climate Action



A Smarter, Greener
Waterford



Climate Action

A Smarter, Greener Waterford

March 2024

Chief Executive Statement

Taking action to reduce greenhouse gas emissions along with preparing for a changing climate are the defining challenges of our time. Waterford City and County Council plans to play its role in this challenge through the delivery of the Climate Action Plan 2024 -2029. We, the Council see this challenge as an opportunity to become more energy efficient, to develop skills and services and to improve the health and well-being of the people of Waterford.

As a public sector body, we must play a leadership role in driving far-reaching climate action across our buildings, transport, waste, and energy usage, as well as influencing wider society. Public Sector targets include reducing Waterford City and County Council's our own emissions by 51% by 2030 and increasing energy efficiency in the public sector from an initial target of 33% target in 2020 to 50% by 2030. We will achieve these targets by increasing climate literacy in the public sector, implementing green public procurement, and retrofitting public sector buildings.

We will work collaboratively with organisations and groups across the City and County to facilitate emissions reduction and by adapting our current infrastructure to be resilient to extreme weather.

As our designated Decarbonising Zone, there will be a particular focus on Waterford city. Together we will work to make Ireland's first city, Ireland's first Carbon Neutral City. This is an effort that will involve us all, and Waterford City and County Council is proud to lead these efforts. Come and join us in the effort to create a low carbon, energy efficient, climate resilient Waterford.



Michael Walsh

Waterford City & County Council Chief Executive

Mayor Statement

We all have a role to play when it comes to tackling climate change. Waterford City and County Council in its work can help others to reduce their emissions while decreasing the energy used in our own operations.

The Council also has an important role to play in preparing for extreme weather. Going forward, climate change will need to be considered in all projects, to be sure that we are being as efficient as possible and to reduce the impact of future weather patterns.

Tackling climate change will require the commitment of Council staff, elected officials, government departments and from all Waterford people. Taking action benefits us all as economically as we spend less on fossil fuels sourced from other countries, healthwise we have cleaner air and more opportunities to be active and socially there are benefits as green spaces benefit people's mental health and community climate projects build community spirit.

We make these changes in Waterford knowing that we are part of a national and international network of organisations and local authorities working towards a healthy, sustainable future for all citizens.



Cllr. Joe Conway
Mayor of Waterford City & County

Glossary of Terms

Active Travel: Walking, cycling or wheeling to make journeys to work, school, or shopping.

Adaptation: Actions that reduce the risks from the harmful effects of climate change

BER: Building Energy Rating a certificate that rates a building's energy performance.

Building Passports: A process for recognising incremental improvements in a BER.

Carbon Sequestration: Long-term storage of carbon in plants or soils

Circular Economy: An economy in which items are used over and over again, reducing the emissions associated with creating new items.

Geothermal: Energy naturally stored within the earth which can be tapped for building heating.

Green Public Procurement (GPP): The process through which public authorities seek to source goods, services or works with a reduced negative environmental impact.

Green Bond: A type of investment taken on by a public or private body specifically for funding green projects.

Heat Island Effect: The tendency of cities and urban areas being warmer than rural areas due to differences in land use.

HVO: Hydrotreated Vegetable Oil, a type of Biofuel made from crops and used cooking oil. It can be used as an alternative to diesel.

LA: Short for Local Authority, which in this document generally refers to City and/or County Councils.

LECP: Local Economic & Community Plan, a local authority's plan for developing its economic and community development.

LED: Light-Emitting Diode, a type of lighting that can be up to 75% more energy efficient than traditional types of bulbs.

Library of Things: A service that allows members of the public to borrow things that may need for short periods of time, to prevent unnecessary purchases.

Life Cycle Analysis: A system of estimating the environmental impacts of a product, including its creation, use, and disposal.

Mitigation: Actions that reduce greenhouse gas emissions.

Permeability: Increasing the extent to which people can walk and cycle within urban areas by opening up throughways and improving footpaths.

Playful City/Street: An initiative that creates safe urban areas for children/families to play, with limited car access in certain areas for periods of time.

Retrofitting: Making changes to existing buildings in order to make them more energy-efficient

Risk Register: A document used to identify and track potential risks within an organisation.

Sustainable Energy Communities: A programme run by SEAI that connects and supports individual communities that want to become more energy efficient.

Sustainable Urban Drainage Systems (SUDS): Drainage systems that mimic natural systems to reduce surface water flooding, improve water quality and enhance biodiversity.

TFI Bicycles: Scheme from Transport For Ireland that provides bicycles for rent around Ireland.

TII (Transport Infrastructure Ireland): State body responsible for managing and improving the country's national road and light rail networks.


URDF (Urban Regeneration and Development Fund): Fund aimed at delivering more compact and sustainable development by funding regeneration projects in urban areas.

WCCC: Waterford City & County Council

CONTENTS

1. An Overview of Climate Change, its significance, impacts and risks for Ireland	6
Climate Change and Ireland	8
Climate Change and Waterford	8
The Legislative and Policy Context of Climate Change	9
The Need for a Climate Action Plan	10
Structure of the Climate Action Plan (CAP)	11
SMART actions	11
Environmental Assessment	11
<hr/>	
2. Profile of County Waterford	12
Waterford County Council as a Service Provider	13
Climate Action Examples in Waterford	14
<hr/>	
3. Evidence-Based Climate Action	15
Importance of Evidence-Based Climate Action Planning	16
Summary of Waterford's Climate Change Risks	16
Summary of Waterford County's Current Emissions Profile	22
Summary of the Decarbonising Zone - Waterford City's - Current Emissions Profiles	24
Summary of Waterford City and County Council's Current Emissions Profile	25
<hr/>	
4. Framework of Climate Actions	26
Action Formulation	27
Plan Vision	28
Plan Mission	28
Strategic Goals and Objective	28
<hr/>	
5. Waterford City - Decarbonising Zone	49
Summary of Waterford's Decarbonising Zone emissions profile	50
The Vision for Waterford City Decarbonisation Zone	51
The Register of Opportunities	52
Actions	53
<hr/>	
6. Implementation and Reporting	66
Planning for implementation	67
Funding and Partnerships	67
Tracking Progress through Key Performance Indicators	68
Reporting Requirements and Arrangements	69



A photograph of a stone tower on a grassy hill at dusk, with a crescent moon in a purple and blue sky.

1. An Overview of Climate Change, its significance, impacts and risks for Ireland

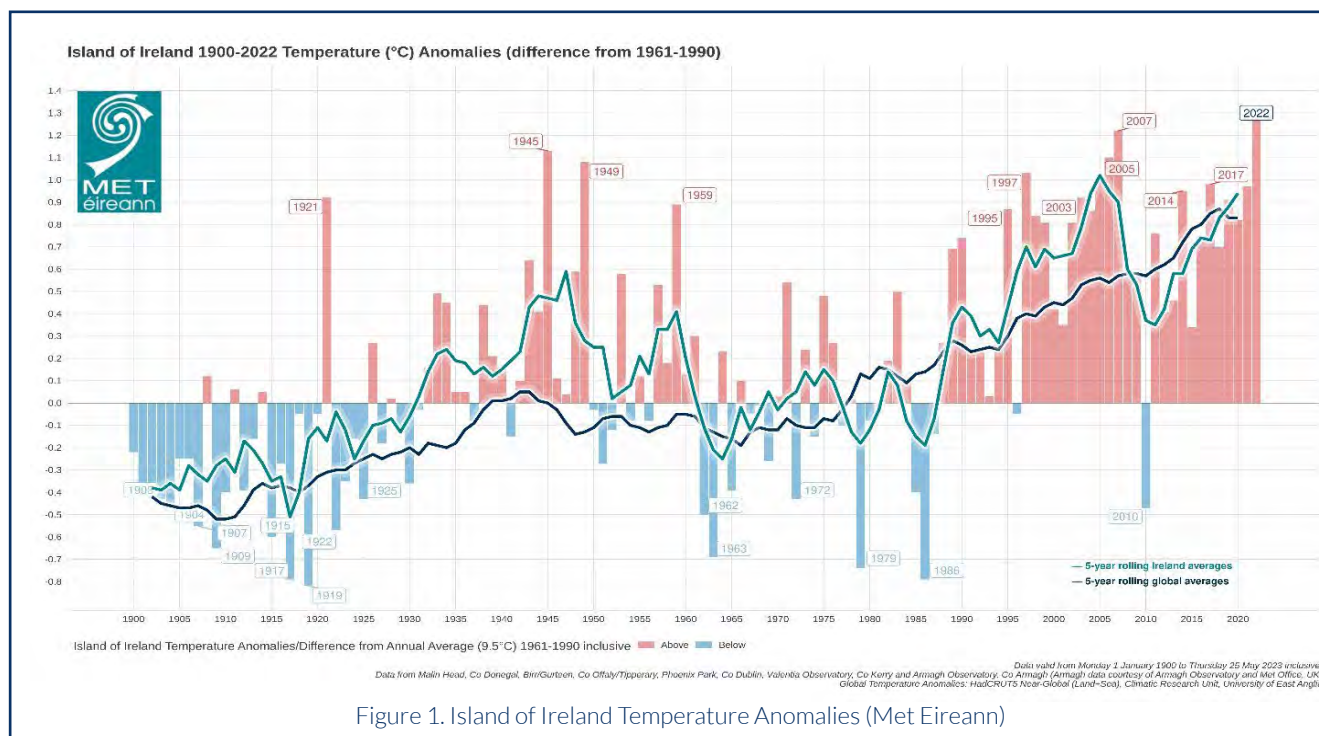
Climate change refers to the long-term shift in global temperatures and weather patterns. For thousands of years, such shifts were naturally occurring processes. They were driven by events such as volcanic eruptions, ice ages and movement of the earth's crust. However, since the industrial revolution in the 1800s, the frequency at which these shifts occur has increased significantly. Human activities such as the burning of fossil fuels are the primary driver of this climate change.

Burning fossil fuels and other activities release greenhouse gases. These gases interact with heat from the sun. Under normal circumstances, sunlight enters our atmosphere during the day and warms our planet. This heat dissipates naturally at night as the earth cools. However, due to the increase in greenhouse gas which have insulating properties, this natural process has been changed to where more heating than cooling is taking place. Raising the temperature of our planet, causing climate change.¹

In 2023, heatwaves were observed across France, Spain, Italy and Greece. In excess of 60,000 heat-related deaths occurred in 2022 across Europe². The peak of the 2023 heatwave saw sustained temperatures in excess of 45°C.

This resulted in water shortages, loss and displacement of biodiversity, reduction in crop yields, evacuation of vulnerable areas and extreme drought conditions. Within the same timeframe, heavy rain and floods in Asia culminated in mass infrastructural damage and loss of life and in Ireland the wettest July on records was recorded. Impacts are becoming more volatile from extreme weather. This is leading to greater loss of life, impacts on food production and damage to critical infrastructure on a much larger scale.

The average temperature of the earth's surface is now about 1.1°C warmer than it was prior to the industrial revolution³. If we continue on our current trajectory with little to no action, we will reach a global temperature increase of 2.8°C by the end of this century⁴, which will lead to increased extreme precipitation in some areas and more droughts and wildfires in others. 2.8°C is almost double the temperature limitation of the legally binding 2015 Paris Agreement which has an overarching objective to hold "...the increase in the global average temperature to well below 2°C above pre-industrial levels" and pursue efforts "to limit the temperature increase to 1.5°C above pre-industrial levels."⁵ (1.5°C represents an increase of 10.7% in temperature compared to the period 1951 -1980).



1 <https://www.ipcc.ch/report/ar6/wg1/resources/climate-change-in-data/>

2 Ballester, J., Quijal-Zamorano, M., Méndez Turrubiates, R.F. et al. Heat-related mortality in Europe during the summer of 2022. *Nat Med* 29, 1857–1866 (2023). <https://doi.org/10.1038/s41591-023-02419-z>

3 Intergovernmental Panel on Climate Change (IPCC), 6th Assessment Report Working Group 1 Press Release, < <https://www.ipcc.ch/2021/08/09/ar6-wg1-20210809-pr/> >

4 United Nations Environment Programme, Emissions Gap Report 2022 < <https://www.unep.org/resources/emissions-gap-report-2022> >

5 UNFCCC, Paris Climate Agreement (2015) < <https://unfccc.int/documents/9097> >

1.1 Climate Change and Ireland

Ireland's climate is changing in line with global trends. However, as an island nation, we are highly susceptible to the impacts of sea-level rise and flooding. For the period 2006-2015, global sea-levels rose by 3.6mm per year, which is about 2.5 times the rate between 1901-1990¹. Ireland's major cities, and many thriving towns are located on or near the coast and may be impacted by sea-level rise. Along with the direct environmental impacts of sea-level rise, there are social and economic concerns that need to be accounted for. Incidences of pluvial (rainfall) and fluvial (river) flooding are also likely to increase.

Other impacts of climate change identified for Ireland include:

- An increase in extreme weather events.
- Adverse impacts on the distribution of flora, fauna and their associated habitats
- Water stress for crops, either too much or too little water, and pressures on water supply
- An increase in variance of temperature ranges (hotter summers, colder winters)

This is a non-exhaustive list of the potential impacts of climate change. The frequency and intensity of these events are subject to uncertainty. In recent years, we have begun to experience more erratic weather conditions. Instances of extreme wind, heat, cold and rainfall have all been observed, with impacts varying greatly.

June 2023 was officially the earth's hottest month on record². In Ireland, the majority of weather station temperature readings were well above their long-term average.

Our oceans too feel the impacts of rising temperatures. A category 4 marine heatwave was observed off the coast of Ireland in June 2023. Our oceans act as our planet's "great heat reservoir" and have absorbed over 90% of the excess heat trapped by greenhouse gases. With rising temperatures however, this process has gone into overdrive and is resulting in the occurrence of marine heatwaves.

The consequences of this include unnatural displacement of fish, coral bleaching, food chain disruption and algal blooms. Waters in the southwest of Ireland were observed to be at 17.4°C, almost 4°C higher than the average June temperature³.

The unprecedented temperature events of Summer 2023 in Ireland demonstrate the need for the urgent cutting of greenhouse gas emissions.

1.2 Climate Change and Waterford

The general impacts on Ireland's climate have sometimes been felt acutely in Waterford. As a coastal county, there is a risk of coastal flooding during instances of heavy rainfall, high tides and high winds and there have been several such events in recent years. Coastal erosion is a cause for concern in Tramore, Passage East, Dunmore East, and Dungarvan. With the rivers Blackwater, Barrow, Bride and Suir all running through the county, flood events can also have destructive and far-reaching impacts.

Instances of extreme wind in Ireland have increased in the last decade and have had highly destructive consequences. One of the most recent events to impact Waterford was Storm Barra (December 2021). Storm Barra carried with it a status red "danger to life" weather warning from Met Éireann. There were maximum gusts of up to 135km/h in coastal areas and prolonged average wind speeds of over 100km/h. It led to uprooted trees, blockage of key transport routes, spot flooding, widescale loss of power for businesses and households, structural damage to buildings and bridges and overall hazardous conditions. All schools were closed. During the event, emergency plans were enacted to ensure the Council and local emergency and health services collaborated effectively to address issues in real time.

Extreme temperatures, hot and cold, are increasing in severity across Ireland. The months of July and August 2022 saw the country experience heatwave conditions. A heatwave is defined as a period of extreme and prolonged heat above 25°C over a period of 5 days. At the peak of the heatwave, temperatures in Waterford City reached as high as 30.1°C. Risks associated with prolonged periods of heat include bitumen slip on transport routes, pressure on water systems, elevated risk of wildfires and health risks for vulnerable members of society. In contrast in December 2022, a cold snap brought about severely cold temperatures with freezing fog, black ice and snow. Temperatures dropped as low as -8°C in the second week of the month. This impacted transport routes, business operations and continuity and vulnerable societal groups.

1.Environmental Protection Agency (EPA), "What Impact Will Climate Change Have on Ireland?" < <https://www.epa.ie/environment-and-you/climate-change/what-impact-will-climate-change-have-for-ireland/> >

2.RTE, "World saw hottest June on record: EU Climate Monitor" < <https://www.rte.ie/news/world/2023/0706/1393053-climate-temperatures/> >

3. Met Éireann, "Marine Heatwave 2023 – A Warning for the Future" < <https://www.met.ie/marine-heat-wave-2023-a-warning-for-the-future> >

1.3 The Legislative and Policy Context of Climate Change

There are several climate change laws and policies which aim to set the long-term direction of climate action. These vary in scope from international agreements, European Directives and Policies to national legislation. Waterford City and County Council (WCCC) will implement and adhere to national government policy and legislation and seek to ensure that Waterford plays its part in Ireland reaching its ambitious climate targets.

1.3.1. EU and International Law and Policy

Ireland must ensure compliance with European and international law and policy¹. This includes implementation of the United Nations Sustainable Development Goals (SDGs). The 17 UN SDGs provide a shared blueprint for peace and prosperity, both for people and the planet. Goal 13 directly relates to climate change and taking urgent action to address it. The UN SDGs need to be enshrined in national policies to ensure universal ambitions are met and no individual is left behind.

Another key international document in relation to climate change and development of actions is the Sendai Framework for Disaster Risk Reduction 2015-2030. This Framework sets out an overarching objective to “...substantially reduce disaster risk and losses in life, livelihoods and health in the economic, physical, social, cultural and environmental assets of persons, communities, businesses and countries.”² The key role local authorities (LAs) play in reducing risks within their localities is recognised through their appropriate use of resources and decision-making powers.

At the EU level, the Green Deal has set out an ambitious climate policy framework. All Member States will contribute towards a 55% reduction in greenhouse gas emissions by 2030 compared to 1990 levels and to make Europe the world’s first “carbon-neutral bloc” by 2050³. A key component of the Deal is the European Climate Law, which has been implemented to embed the 2050 climate neutrality target into legislation. Other topics to be addressed within the Deal include the setting of intermediate greenhouse gas emissions for Europe (“Fit for 55”), implementation of a climate adaptation strategy and an EU biodiversity strategy for 2030.

1.3.2. National Law and Policy

In 2019, Ireland became only the second country in the world to declare a climate and biodiversity emergency. Two years later, Ireland’s first piece of legally binding climate legislation was enacted into law. The Climate Action and Low Carbon Development (Amendment) Act 2021 has, for the first time, set a legally binding target for CO₂ emissions. The Act commits the State to a 51% reduction in greenhouse gases by 2030 and to climate neutrality by 2050.



1 UN SDGs < <https://sdgs.un.org/goals> >

2 UN Sendai Framework for Disaster Risk Reduction 2015-2030 < <https://unece.org/sendai-framework> >

3 EU Commission, “A European Green Deal” < https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal_en >

To ensure progress on these targets, a national Climate Action Plan has been published and is being updated on an annual basis. The Plan lists over 400 actions required to reach the 2030 and 2050 targets. It has set emissions ceilings for major sectors including transport, electricity, agriculture and the public sector.

It is the role of the Climate Change Advisory Council (CCAC) to draft carbon budgets for these sectors. The Council, compiled of fourteen experts in the realms of climatology, meteorology and science, will draft a budget at least once every five years as per statutory requirements. It will then go before the government for approval and implementation. The first three carbon budgets are as follows¹:

- 2021-2025: 295 Mt CO₂ eq. an average of -4.8% for the first budget period
- 2026-2030: 200 Mt CO₂ eq. an average of -8.3% for the second budget period
- 2031-2035: 151 Mt CO₂ eq. an average of -3.5% for the third provisional budget

These budgets will be reviewed at regular intervals to ensure they continue to align with the long-term 2050 objective of carbon neutrality. The Advisory Council will report on shortfalls and exceedances of budgets and hold the government accountable where necessary.

1.3.3. Local Policy

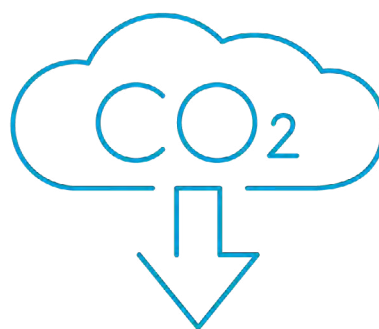
Local Authorities were identified under the National Adaptation Framework 2018 as key drivers of climate action. Each LA subsequently developed its own Climate Adaptation Strategy in 2019. The positions of LAs was strengthened further by the signing of the Local Authority Climate Action Charter. This commits LAs to monitor, evaluate and report on the implementation of climate actions on an annual basis. The first sector-wide climate strategy was published by the Local Government Management Agency (LGMA) in 2021². Delivering Effective Climate Action (DECA) obligates all LAs to long-term climate action and to take on a leadership role within their area. This strategy ties in with the Charter and National Climate Action Plan. Actions in Chapter 4 and 5 in this plan each have an associated goal from the Delivering Effective Climate Action (DECA) strategy.

1.4 The Need for a Climate Action Plan

Dealing decisively with climate change is key to securing a liveable world for future generations and to providing a healthy environment for us all today. The effect of an unnaturally warming climate is already hampering weather systems, damaging natural habitats and displacing people across the world. This is a time of great challenges but also a time of great opportunity as technology will allow us to produce **energy locally, use resources efficiently and create new markets for skills and innovation.**

A Local Climate Action Plan based upon Specific, Measurable, Agreeable, Realistic and Timebound (SMART) methodology will ensure that Waterford is prepared for the transition towards a low-emission and climate resilient society.

Local authorities have experience in engaging citizens and stakeholders through their existing functions including land-use planning, housing, enterprise, transport and environmental awareness. The challenges of climate change which are far reaching across society, are not defined by spatial boundaries and therefore require holistic and collective responses. Engagement and participation by local citizens and stakeholders in climate measures is considered particularly important. Waterford City and County Council (WCCC), through its diverse provision of services and experience in stakeholder engagement, is well placed to take on a leadership role and deliver a Local Climate Action Plan for Waterford. While climate change is a universal global challenge, solutions must first start at the local level.



¹ Climate Change Advisory Council, Carbon Budgets < [² LGMA, Delivering Effective Climate Action \(2021\) < \[>\]\(https://www.lgma.ie/en/publications/local-authority-sector-reports/delivering-effective-climate-action-2030.pdf\)](https://www.climatecouncil.ie/carbonbudgets/#:~:text=The%20first%20three%20carbon%20budgets,295%20Mt%20CO2%20eq.></p></div><div data-bbox=)

1.5 Structure of the Climate Action Plan (CAP)

This draft CAP is set out as follows:

1. Introduction
2. Profile of County and of the County Council
3. Evidence based Climate Action
4. Framework of Climate Actions for the County
5. Waterford City Decarbonising Zone
6. Funding, Implementation and Reporting

The Public Notice prepared in accordance with Section 5 of the Act is attached as Appendix A. There are five supplementary reports available to support Waterford's CAP, these are available as supplementary reports on the Council's Consult Portal along with two spreadsheets of the two sets of actions for ease of reading:

- Climate Change Risk Assessment for Waterford (Waterford City & County Council, 2023)
- Baseline Emissions Inventory for Waterford County (Waterford City & County Council, 2023)
- Tier 3 Baseline Emission Inventory for Waterford City (Waterford City & County Council, 2023)
- Environmental Report in accordance with the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. 435 of 2004 as amended by S.I. 200 of 2011) for Strategic Environmental Assessment (SEA)
- Appropriate Assessment (AA) Natura Impact Report pursuant to Article 6 of the Habitats Directive 92/43/EEC

1.6 SMART actions

In tailoring actions for the city and the county, the "SMART" approach to their development was taken where actions are:

- **Specific:** Define the action as clearly as possible to avoid ambiguity
- **Measurable:** With specific criteria that measure your progress towards the accomplishment of the goal
- **Achievable:** Attainable and not impossible to achieve
- **Realistic:** Within reach, realistic and relevant
- **Timely:** With a clearly defined timeline

1.7 Environmental Assessment

Waterford's Climate Action Plan is subject to compliance with the SEA Directive (Directive 2001/42/EC) on the assessment of the effects of certain plans and programmes on the environment and to Article 6(3) of the EU Habitats Directive (Directive 92/43/EEC) to determine if its implementation is likely to have significant effects on any Natura 2000 sites.

In order to support and deliver this process, Waterford City & County Council is participating in a shared service agreement for consultancy support with the South East Sub-Region – Carlow, Kilkenny, Tipperary and Wexford with Fehily and Timoney, Environmental Consultants contracted as environmental and ecological partners.

In this respect, a Strategic Environmental Assessment Environmental Report and Appropriate Assessment Natura Impact Report have been prepared, and are available as supplementary documents.





2. A Profile of County Waterford

Waterford is located on the Southern coast of Ireland, and it has an area of 1,857km². Waterford shares a boundary with 3 counties. The County population is 127,085 which is almost evenly divided between Waterford City and Waterford County. Waterford has 100km of coastline, upland habitats in the Comeragh mountains and 4 major rivers run through the County (the Suir, the Barrow, the Blackwater and the Bride).

Waterford City is the main population centre in the county and is the fifth largest city in the state. There five further urban centres in the county: Dungarvan, Tramore, Lismore, Cappoquin and Portlaw.

33,801 are under the age of 15 (2022 census)	83% of Waterford people are worried about climate change ¹
39.4 is the average age in Waterford (2022)	11% of people work from home (increase from 6% in 2016)
65% of Waterford people own their own homes, 29% are renting	Housing stock of 55,159 (up 5.1% from 2016)

¹ Climate Change in the Irish Mind | Environmental Protection Agency (epa.ie)

Waterford is connected by a national rail network to Dublin (passenger). The road network connects Waterford by bus and private car to Cork, Kilkenny, Tipperary, Wexford and Dublin. Local transport within the county remains highly reliant on the private car as the primary mode of transport. Waterford has a diverse economy; the largest employment sectors in the county are Professional Services (26%), Commerce and Trade (20%), and Manufacturing (17%).

2.1 Waterford County Council as a Service Provider

The Council is itself a large and diverse organisation, responsible for providing a wide range of services and supports to a diverse range of customers. The customers of the Council are all of us in Waterford, including 127,085 residents in 55,000 households, approximately 26,625 businesses with over 55,330 employees, along with those who visit our county for recreation. Council services are delivered by just over 800 staff working out of two main Civic Offices in Dungarvan and Waterford City.

The Council itself is one of the major employers in the county, with a combined capital and revenue spend of circa €154 million per annum.

The Council provides the following services (allocated by % of total budget spend):

Roads and Transport	30%
Housing	21%
Environmental Services	14%
Development	12%
Recreation	10%
Water	7%
Miscellaneous	6%

The work of the Local Authority is varied and has an impact on greenhouse gas emissions in the County from the work that is done within Council departments for example Planning or Active Travel, to how the Council delivers that work e.g. emissions from our buildings and fleet. The work of the Council also involves preparing for extreme weather events and reinforcing existing infrastructure where possible.

Work has already begun on reducing the Council's operational emissions and in preparing for Climate Change, some examples are detailed below.

2.2 Climate Action Examples in Waterford

2.2.1 A Low Emission Fleet

Waterford City and County Council purchased their first electric fleet vehicles in 2014. Recently three electric vans have been added to the fleet and Hydrogenated Vegetable Oil (HVO) has been trialled on the heavier vehicles that do not have electric equivalents at present. WCCC will continue to replace our fleet with low emission vehicles. WCCC are currently working with partners in the region to create an Electric Vehicle (EV) charging strategy for the County, which will identify the areas in greatest need of charging infrastructure. The Council will then work with ZEVI, the national EV office, to install the required infrastructure.



Figure 2. Electric Van

2.2.2 Flood Defences

Flood defences have been in place in Waterford City for some years. Further flood prevention works are currently being put in place in Dungarvan. €1million funding has been granted for a storm water project in Duckspool.

2.2.3 Energy efficiency upgrades of Council buildings

In partnership with the SEAI and the Southeast Energy Agency, WCCC have delivered over 30 energy efficiency improvement projects on public buildings, reducing energy costs and making buildings more comfortable for occupants.

One of the projects funded through the Better Energy Community fund was the installation of a 50kWp solar photovoltaic (PV) array that has produced 49.1 Mega Watt Hours (MWH) in a year.



Figure 3. Solar Array on Dungarvan Depot

2.2.4 Active Travel projects and the Sustainable Transport Bridge

WCCC's Active Travel team have delivered a number of successful Active Travel projects such as the completion of the Greenway from Carriganore into the City Centre. They will continue to deliver on projects that will result in almost €11 million being invested in Active Travel in the county in 2023.

Construction is underway on Waterford City's Sustainable Transport Bridge. This bridge will connect the North Quays with the City Centre and will provide citizens on either side of the bridge with an opportunity to commute on foot or by bike, reducing traffic and improving air quality along the Quays.



Figure 4. Bilberry Greenway connecting to the City Centre

2.2.5 Commercial Energy Rates Discount

An early assessment of emissions in Waterford City identified businesses as being a sizeable contributor to the City's carbon footprint. WCCC set out the Commercial Energy Rates Discount to reward businesses of a certain size, who were making energy efficiency a priority with a rates discount. In 2022 almost 1,000 businesses completed the application and in 2023 over 600 businesses applied for the rates discount.



3. Evidence-Based Climate Action

3.1 Importance of Evidence-Based Climate Action Planning

Effective climate action must be informed by a reliable evidence base. Inventories of past climate events, current trends, and predictions based on scientific modelling must all be included as part of the evidence base. As identified in Technical Annex A of the Local Authority Climate Action Plan Guidelines¹, it is key for a Local Authority (LA) to build an evidence base in order to gain a better understanding of the challenges, opportunities, leverage mechanisms and actors relating to the delivery of effective climate action.

Climate action planning must be reflective of and adhere to recent policy and legislation. Particular attention should be paid to the 2015 Paris Agreement along with all relevant instruments and pillars of the European Green Deal². Actions must be planned and carried out with regard to the most recently approved national long term climate action strategies, sectoral adaptation plans, and Government policies on climate change. To deliver effective change, climate action planning should encompass both mitigative and adaptive measures.

The evidence base for this Climate Action Plan includes:

- **Climate Risk Assessment**
- **Baseline Emission Inventory for the County**
- **Baseline Emission Inventory for the Decarbonising Zone area (Waterford City)**
- **Policy Context Review to ensure the plan is in line with National policy**

Collation of this evidence will help to identify areas to focus on for reduction of the Waterford City and County Council’s own emissions, as well as identifying focus areas for adaptation and mitigation measures across the City and County.

3.2 Summary of Waterford’s Climate Change Risks

A Climate Change Risk Assessment was completed to identify the existing weather patterns and to see how those risks may change based on national projections and the profile of Waterford.

The frequency and impact of many weather events such as river flooding, coastal flooding, storm surges and drought are expected to increase as our world warms.



Figure 5: Common definitions within the Climate Action Plan

1 Government of Ireland (2023). Technical Annex A: Developing and Implementing the Local Authority Climate Action Plan. Available at: [6eaf29f4-acde-4906-aa5b-c2d39c64632a.pdf \(www.gov.ie\)](https://www.gov.ie/en/publications-and-resources/publication/6eaf29f4-acde-4906-aa5b-c2d39c64632a.pdf)

2 UNFCCC (2015). Paris Agreement. Available at: [ADOPTION OF THE PARIS AGREEMENT - Paris Agreement text English \(unfccc.int\)](https://unfccc.int/paris-agreement)

3.2.1 Goals of the Climate Change Risk Assessment

The Tier 1 Qualitative Climate Change Risk Assessment (CCRA)¹ was prepared to identify current and future risks posed by climate change for County Waterford. The CCRA also provides an avenue for raising awareness of the consequences of climate change, allows for identification and prioritisation of risk, and identification of where and when climate change adaptation is needed.

The CCRA provides:

- A An assessment of **current climate hazards**, exposure and vulnerabilities of climate change on the LA's ability to provide efficient delivery of services

- B An assessment of **future climate risks and impacts** on the LA's ability to provide efficient delivery of services.

Recent Extreme Weather Events in Waterford

In line with national and global trends, Waterford's climate is changing. Temperatures are rising and patterns of precipitation are becoming more varied. A summary of recent climate and weather-related changes are presented below.



Figure 6. Recent Extreme Weather Events in County Waterford (Source: Tier 1 Climate Change Assessment, RPS, 2023)

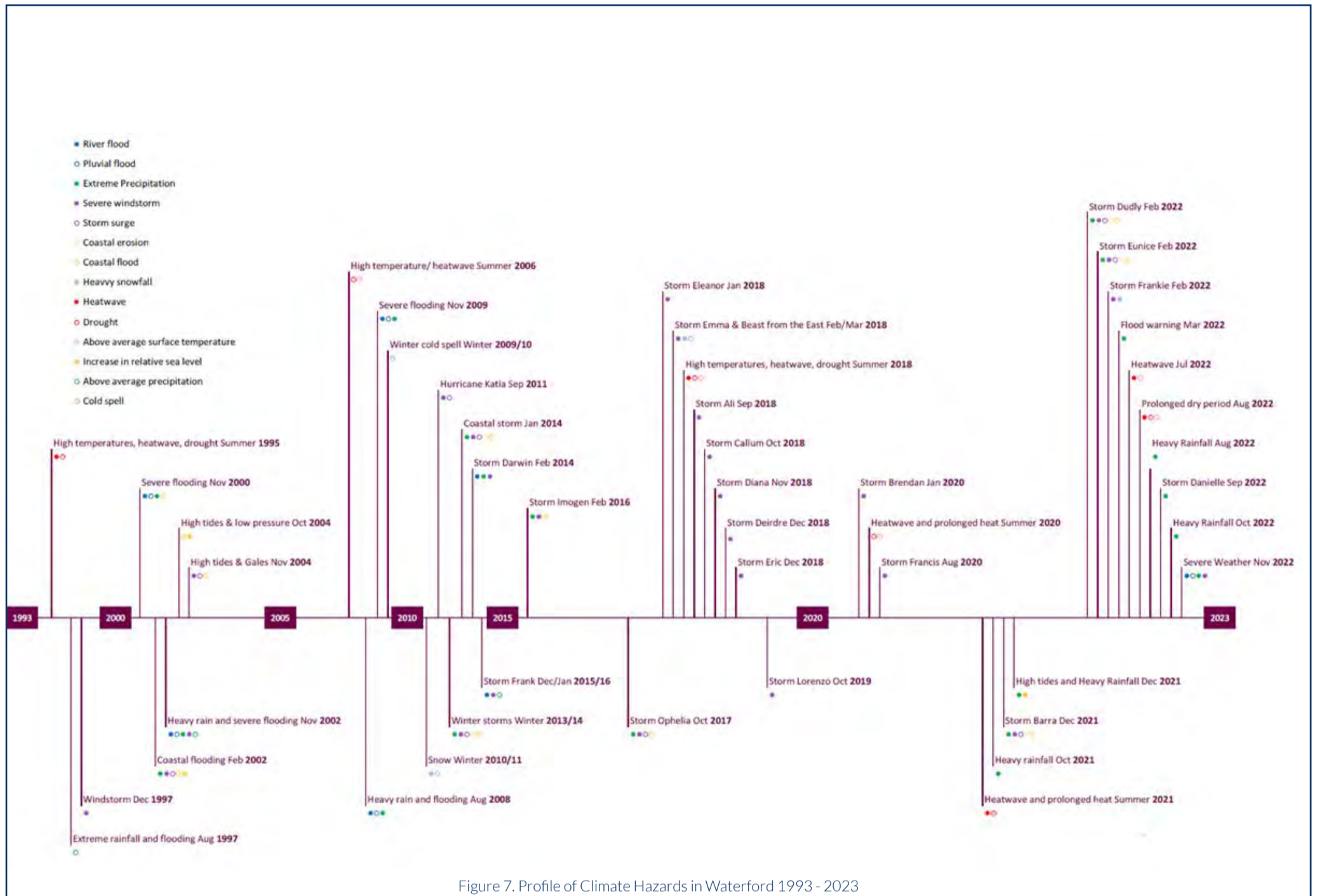


Figure 7. Profile of Climate Hazards in Waterford 1993 - 2023

3.2.2 Methodology

The methodology used is outlined in Technical Annex B from the Local Authority Climate Action Plan Guidelines¹. Climate change risk assessment consists of three inter-related components:

- **Hazards:** potential climate-related sources of harm, including damage/loss of property/infrastructure, potential injury, loss of life or other health impacts, livelihoods, service provision, ecosystems, and environmental resources
- **Exposure:** the presence of assets, infrastructure, property, people, livelihoods, species or ecosystems, environmental functions, services, resources that could be affected by climate-based hazards
- **Vulnerability:** the propensity or predisposition to be adversely affected by climate-based hazards. This includes sensitivity and adaptive capacity
- **Assessment of Current Climate Risks & Impacts:** this includes identifying the range of climate hazards that have previously affected

Waterford City & County Council within its administrative area. It also includes assessing the exposures and vulnerabilities of WCCC's administrative area to these hazards. A timeline of climate hazards (extreme weather events) that have historically affected the county was prepared.

3.2.3 Summary

A number of climate hazards were identified for County Waterford. Their frequency during the period 1993-2023 is shown in [Figure 7](#).

Very Frequent events are events that occur several times in a single year. Frequent events are defined as occurring once in a 1-to-2-year period. Common events occur once in a 2-to-10-year period. Occasional events occur once in a 10-to-100-year period and Rare events are defined as occurring once in a 100 years.

Hazard Type	Occurrences	Frequency
 Severe Windstorm	26	Very Frequent
 Extreme Precipitation	20	Very Frequent
 Coastal Flooding	11	Common
 Storm Surge	9	Common
 River Flooding	7	Common
 Heatwave	6	Common
 Pluvial Flooding	5	Common
 Drought	5	Common
 Above Average Surface Temperature	5	Common
 Coastal Erosion	5	Common
 Heavy Snowfall	3	Common
 Above Average Precipitation	3	Common
 Cold Spell	3	Common
 Increase in Relative Sea Level	3	Common

Figure 8. Frequency of extreme weather events in Waterford during the period 1993-2023 (Source: Tier 1 Climate Change Risk Assessment, RPS)

¹ Government of Ireland (2023) Technical Annex B: Climate Change Risk Assessment. Available at: [c495d043-5410-4e1b-97c7-9fafa7dca598.pdf](https://www.gov.ie/c495d043-5410-4e1b-97c7-9fafa7dca598.pdf) (www.gov.ie)

For each of the climate hazards, several risk areas were identified.

Figure 9 shows a summary of impacts across the key categories for the seven climate hazards identified.

Severity of impact was calculated for each of the climate hazards on the basis of exposure, vulnerability, and impact. Overall impact was calculated as being the average of impacts

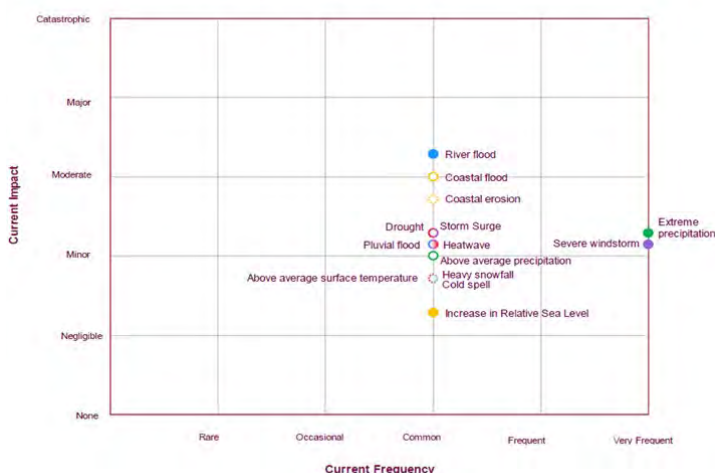
across the risk areas. A major impact is defined as an event where services delivered by WCCC or other bodies (e.g. ESB or Irish Water) are in danger of failing completely with a severe decline in service provision. A moderate impact is defined as when service provision is put under severe pressure. A minor impact is where there are isolated but noticeable examples of service decline, and finally a negligible impact is where there is the appearance of a threat but there is no impact on service provision.

Hazard Type	Current Frequency	Current Frequency (Score)	Asset Damage	Health and Wellbeing	Environment	Social	Financial	Reputation	Cultural Heritage	Current Impact
River flood	Common	3	Major	Major	Moderate	Moderate	Moderate	Moderate	Moderate	3.29
Coastal flood	Common	3	Major	Moderate	Moderate	Moderate	Minor	Moderate	Moderate	3.00
Coastal erosion	Common	3	Major	Minor	Major	Minor	Minor	Minor	Moderate	2.71
Extreme precipitation	Very Frequent	5	Moderate	Minor	Minor	Minor	Minor	Minor	Moderate	2.29
Storm Surge	Common	3	Moderate	Moderate	Moderate	Minor	Minor	Negligible	Minor	2.29
Drought	Common	3	Minor	Moderate	Moderate	Moderate	Minor	Minor	Negligible	2.29
Severe windstorm	Very Frequent	5	Minor	Moderate	Moderate	Minor	Negligible	Negligible	Moderate	2.14
Pluvial flood	Common	3	Moderate	Minor	Minor	Minor	Negligible	Moderate	Minor	2.14
Heatwave	Common	3	Minor	Moderate	Moderate	Minor	Negligible	Negligible	Moderate	2.14
Above average precipitation	Common	3	Moderate	Minor	Minor	Minor	Negligible	Negligible	Moderate	2.00
Above average surface temperature	Common	3	Negligible	Negligible	Major	Negligible	Negligible	Negligible	Moderate	1.71
Cold spell	Common	3	Minor	Minor	Negligible	Minor	Minor	Negligible	Minor	1.71
Heavy snowfall	Common	3	Minor	Minor	Minor	Negligible	Minor	Negligible	Minor	1.71
Increase in Relative Sea Level	Common	3	Negligible	Negligible	Minor	Negligible	Negligible	Negligible	Minor	1.29

Figure 9. Current Impact Summary Matrix (Source: Tier 1 Climate Change Risk Assessment, RPS)

River Flooding was found to have the highest impact according to the assessment criteria in the Current Climate Impacts Assessment and is therefore taken to be the climate hazard that presents the most risk to County Waterford. **Coastal Flooding** and **Coastal Erosion** are also considered to be among the most significant current climate risks. All three are classified as 'common' in terms of frequency. This is shown in figure 4, the current climate risk matrix for County Waterford.

Current Climate Impacts Assessment



3.2.4 Future Impact Assessment Survey

The report also provides a **Future Impact Assessment Summary**, using national statements of projected climate changes and impacts through services such as Climate Ireland’s Essential Climate Information Tool¹, and Climate Ireland’s Climate Hazard Scoping Tool². Due to the complex nature of climate change and its effects, a varying degree of uncertainty must be acknowledged when reviewing evidence to inform climate action.

Potential future risks within WCCC’s administrative area include the increased frequency of heavy cloud bursts, increased likelihood of wildfires due to more prolonged dry periods and heatwaves, higher-than average temperatures, reduced soil moisture content, and drying out of bogs and other wetlands.

The projected future level of impact was estimated for each hazard and each impact category, and average projected impact was plotted against projected frequency. These projections assume that no additional adaptation measures are taken.

The hazard types with the highest projected impact were **River Flooding (3.71)**, **Coastal Flooding (3.43)**, **Storm Surge (3)** and **Drought (3)**. Figure 5 shows this data as part of the Future Climate Matrix.

Future projections of climate change indicate that **Above Average Precipitation, Prolonged Cold Periods** and **Heavy Snowfall** are likely to remain relatively consistent with existing conditions. **All other identified climate hazards, however, are predicted to increase**, with River Flooding remaining the perceived highest risk to County Waterford.

Future developments and council projects will need to consider changing weather patterns and will be designed to adapt to a changing climate.



Figure 12: Flooding on the Quay Waterford City, February 2014.

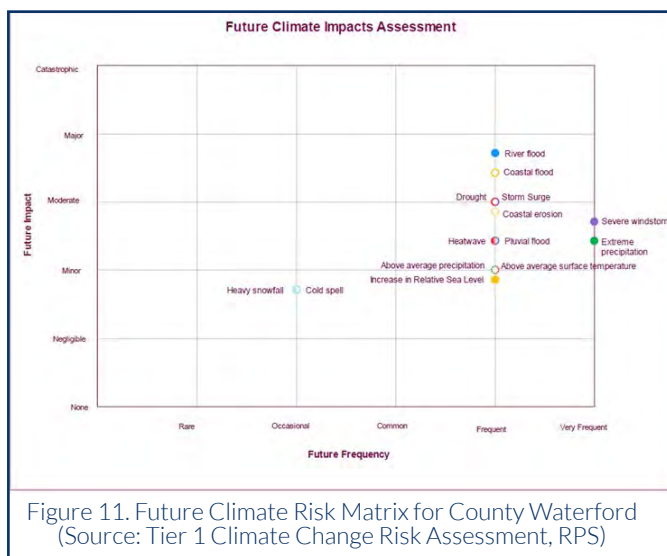


Figure 11. Future Climate Risk Matrix for County Waterford (Source: Tier 1 Climate Change Risk Assessment, RPS)

1 Climate Ireland. (2023). Climate Ireland’s Status Tool. Available from: <https://www.climateireland.ie/#!/tools/statusReport>

2 Climate Ireland. (2023). Climate Hazard Scoping Tool. Available at: <https://www.climateireland.ie/#!/tools/hazardTool>

3.3 Summary of Waterford County's Current Emissions Profile

This section summarises data of the County's greenhouse gas emissions from the baseline year 2018. Data used is from the Tier 2 Baseline Emissions Inventory prepared for Waterford City & County Council by the Southeast Energy Agency in April 2023.

The National Baseline year for Ireland is 2018, as established in the National Climate Action Plan 2021. Emissions for this year have been calculated by sector and are presented in Appendix C the Baseline Emission Inventory for Waterford. Actions and emissions reductions are based on the findings of the Baseline Emission Inventory.

3.3.1 Methodology

The methodology on carrying out a Baseline Emission Inventory for the County is outlined in Technical Annex C.

3.3.2 Emissions results

Greenhouse gas emissions arising from activities in Waterford amounted to **1,995ktCO₂e** in 2018. These emissions are expressed in tonnes of CO₂e (equivalent), where all greenhouse gas emissions (methane, nitrous oxides, refrigerants etc), not just CO₂, have been considered. Carbon dioxide equivalent or CO₂e means the number of metric tons of CO₂ emissions with the same global warming potential as one metric ton of another greenhouse gas.

Figure 13 details where these emissions arise from.

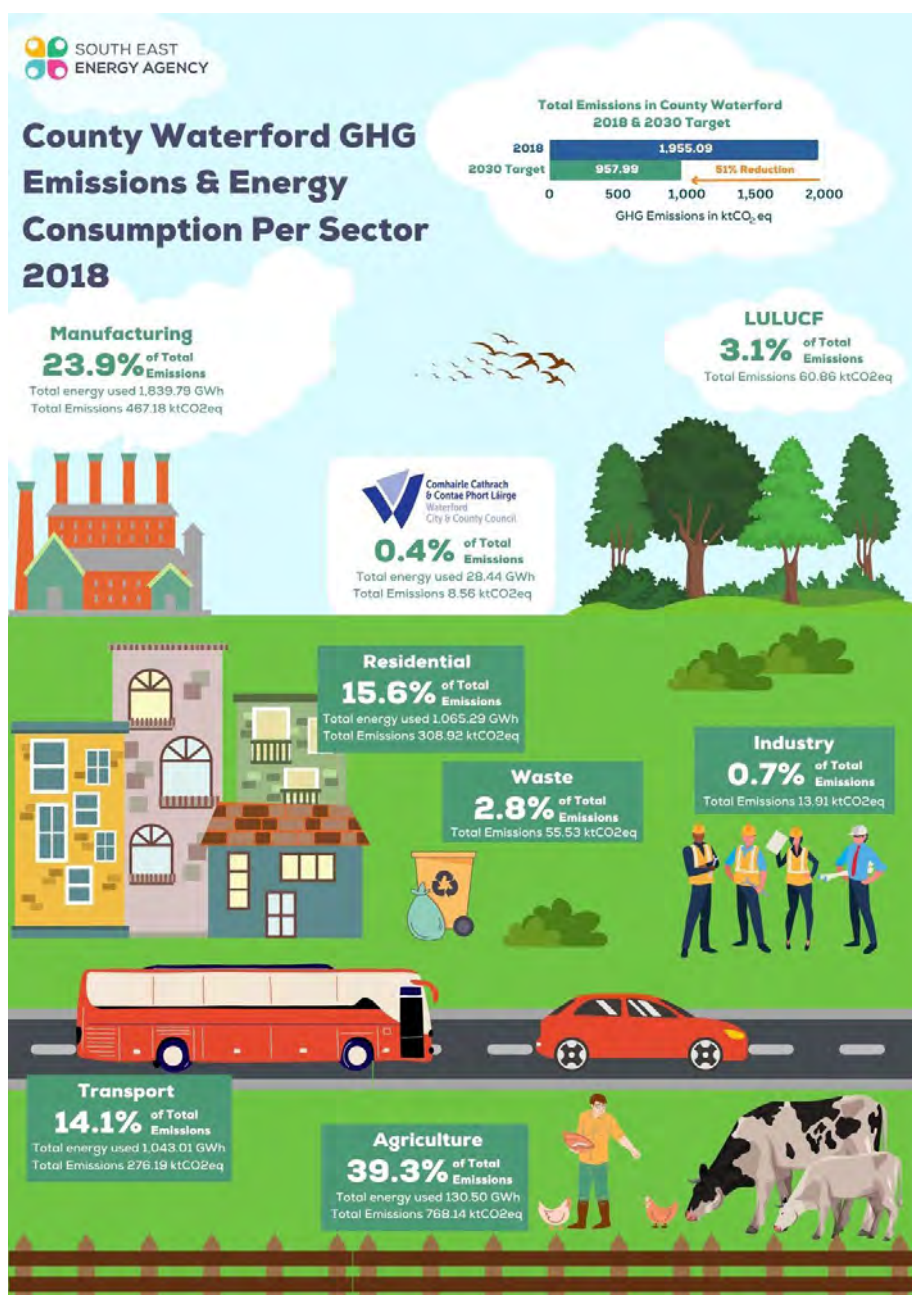


Figure 13. County Waterford's Emissions profile

3.3.3 Conclusions

The 2030 Emission Reduction Target as set out in the Climate Action and Low Carbon Development (Amendment) Act 2021 is a 51% absolute reduction in overall greenhouse gas emissions by 2030, setting us on a path to reach net-zero emissions by no later than 2050, as committed to in the Programme for government.

The Baseline Emission inventory identifies an emission reduction target of 51% to 957ktCO₂e across the sectors of residential energy use, transport, manufacturing, waste, agriculture, and land use.

WCCC will reduce emissions in the areas where we have full accountability (WCCC buildings and transport).

As described in figure 14 WCCC will assist in reducing emissions in the areas where we have influence (planning, legislative functions such as farm visits and procurement). WCCC will facilitate emissions reductions in the Manufacturing and Industrial areas and finally, through the library service and other public engagement functions, WCCC will advocate for climate action and raise awareness of how people can play their part.

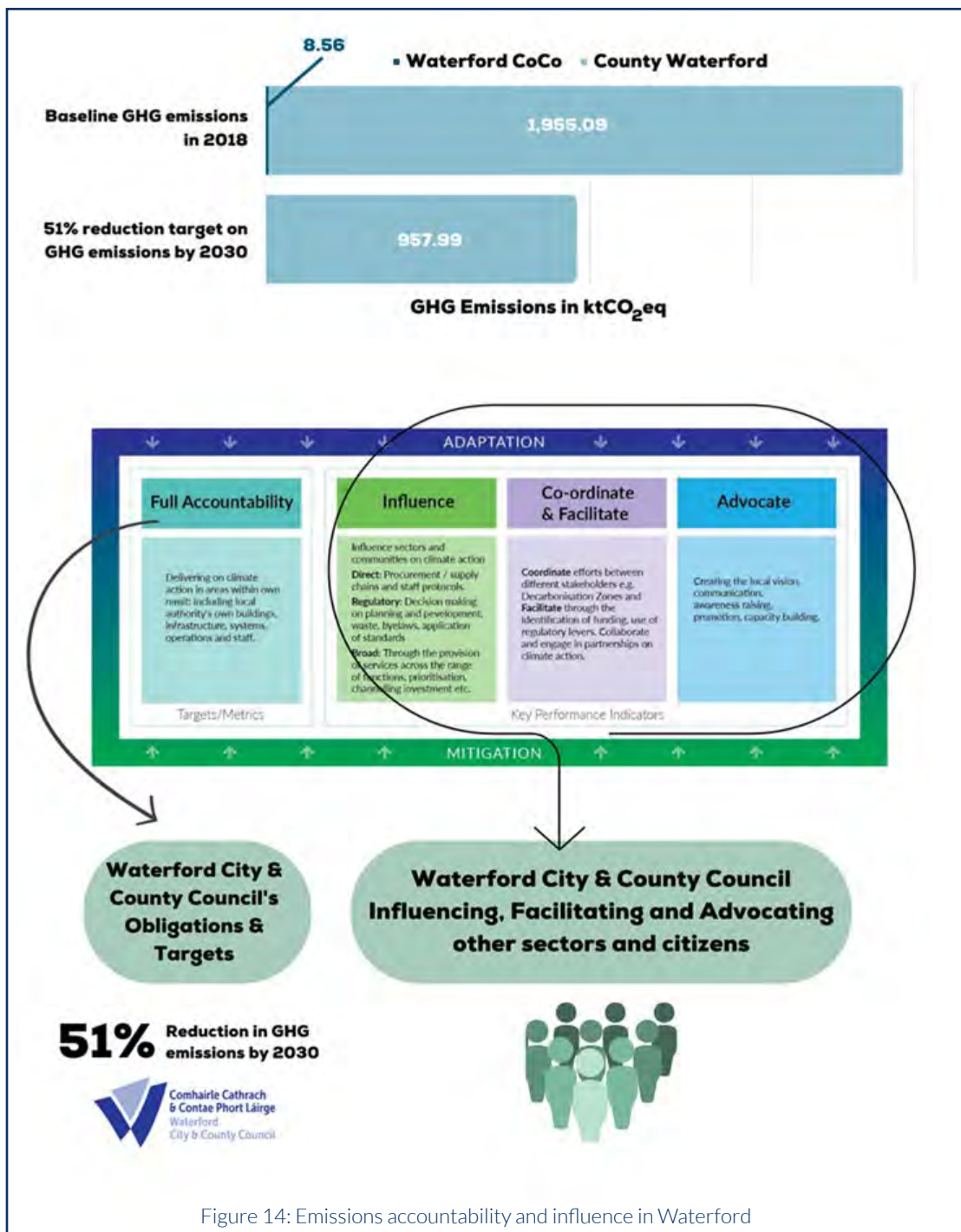


Figure 14: Emissions accountability and influence in Waterford

3.4 Summary of the Decarbonising Zone – Waterford City’s – Current Emissions Profiles

Decarbonising Zones are test bed areas that have been identified by a local authority where new ways of delivering climate actions will be developed in partnership with large employers and the public in the area.

Waterford City was chosen as the Decarbonising Zone for Waterford in 2021 and as assessment was made in 2023 of all emissions in the city to allow the Council to effectively target the areas where the greatest emissions reductions can be achieved while also providing a baseline against which emissions reductions will be measured. This section details the findings of that baseline.

3.4.1 Methodology

The methodology for carrying out a Tier 3 Baseline Emission Inventory for the Decarbonising Zone (Waterford City) is outlined in Technical Annex D¹.

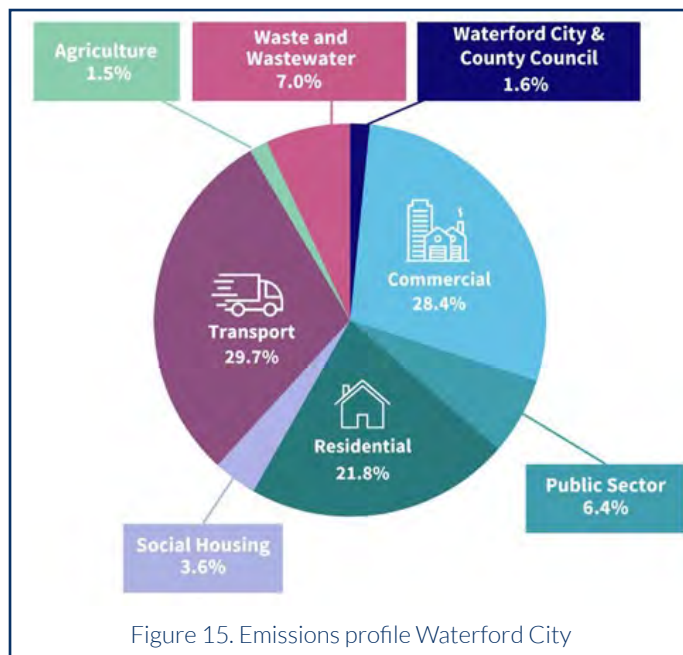
3.4.2 Emissions results

Emissions and energy use across the eight emissions area are detailed in Table 1. The total emissions in the city were 289.5ktCO₂eq.

Emissions breakdown by category in the city can be seen below. The highest emissions arise from transport, business and residences.

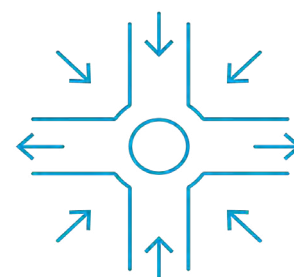
Waterford City DZ	Total Energy (GWh)	Total GHG Emissions (ktCO ₂ eq.)
Waterford City & County Council	15.3	4.6
Public Sector	66.7	18.4
Commercial and Industrial	321.1	82.1
Residential	238.1	63.1
Social Housing	44.6	10.5
Transport	331.4	86.0
Agriculture	0.2	4.5
Waste & Wastewater	0.0	20.3
Totals	1,017.4	289.5

Table 1. Emissions breakdown in Waterford City



3.4.3 Conclusions

The actions laid out in this Climate Action Plan will allow the Council to reduce emissions from their own emissions and from transport directly. WCCC will work in partnership with the Commercial sector to make emissions reduction a priority and to make Waterford City a low-carbon place to do business. Climate Actions for the City are described in section 5 of the Climate Action Plan.



¹ Southeast Energy Agency, (2023). Tier 3 Baseline Emission Inventory

3.5 Summary of Waterford City and County Council's Current Emissions Profile

This section summarises data on WCCC's own emissions from the baseline year 2018.

Data used is from the Tier 2 Baseline Emissions Inventory¹ prepared for Waterford City & County Council by the Southeast Energy Agency in April 2023.

3.4.1 Methodology

The methodology on carrying out a Tier 2 Baseline Emission Inventory is outlined in Technical Annex C².

Data for all Local Authorities' direct energy-based emissions are reported annually to the SEAI under the mandatory Monitoring & Reporting (M&R) system, according to the methodology set out by the SEAI. Through this system, the majority of direct emissions from the use and combustion of fuels and electricity are captured from key areas such as transport and buildings and facilities. This currently does not include the monitoring of social housing emissions. Data taken from the M&R system provides an energy-based BEI to inform actions to reduce the LA's emissions. Energy use is calculated from activity data supplied by the local authority and an emissions factor is used to convert the energy data to actual emissions.

Although the National targets are set against a 2018 baseline, Local Authorities are required, in accordance with Department Guidelines on the preparation of a Climate Action Plan, to use the data average of 2016-2018 as their baseline period. This County Wide Baseline Emissions Inventory (BEI) therefore outlines the 2018 baseline data for County Waterford as a whole, which includes Waterford City & County Councils 2018 data. However, for Waterford City & County Councils own targets, the 2016-2018 baseline period must be used, as outlined in the Climate Action Plan 2021. Both sets of data are included in Appendix C.

3.4.2 Emissions results

Converting energy use data into emissions, **WCCC's total emissions for 2018 amounted to 8.56 ktCO₂eq:**

- Public Lighting was the highest contributor, accounting for 3.06ktCO₂eq (36%) of emissions
- Building and Facilities contributed 2.97ktCO₂eq (35%)
- Transport contributed 2.52ktCO₂eq (29%)

Key findings from the BEI report include the following:

- Total final energy used in 2018 was 28.44 GWh
- Buildings/Facilities was the largest consumer of energy in the sector, accounting for 36.5% of the total energy consumption, followed by Transport at 35% and Public Lighting at 28.5%
- Total final emissions produced by Waterford City & County Council in 2018 were 8.56 ktCO₂eq
- Public Lighting was responsible for the highest GHG emissions from Waterford City & County Council, at 36%, followed by Buildings/Facilities at 35% and Transport at 29%

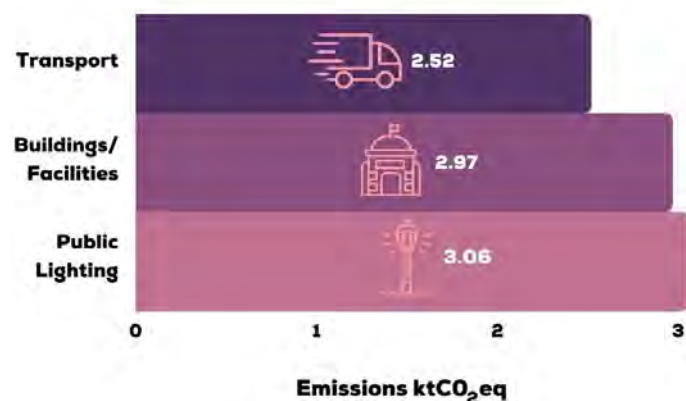


Figure 16. WCCC Emissions Breakdown

3.4.3 Conclusions

In total, WCCC's share of total emissions for County Waterford is 0.4%. Although these emissions are low in comparison to the County's emissions as a whole, there are great opportunities to improve energy efficiency in WCCC buildings, to be a leader in the adoption of low carbon technologies and in working with different sectors to reduce emissions and to adapt to reduce the impact of extreme weather events. WCCC also have a legal commitment to reduce our emissions by at least 51% by 2030.

The following Climate Action Plan for County Waterford is intended to define and outline a clear pathway to achieve the reductions required. As part of the climate action plan, WCCC will be responsible for reducing greenhouse gas emissions from across its own assets and infrastructure, whilst also taking on a broader role of influencing and facilitating others to meet their own targets. This is necessary to ensure the environmental, social and economic benefits that come with climate action can be fully realized.

Waterford City & County Council have drafted this plan to the key principles of the Local Authority Climate Action Planning Guidelines to ensure that the local authority climate action plan is: Ambitious, Action-focused, Evidence-based, Participative and Transparent.

¹ Southeast Energy Agency, (2023). Tier 2 Baseline Emission Inventory.

² RPS, (2023). Technical Annex C: Climate Change Risk Assessment for Waterford.

An aerial photograph of a lush, green landscape. A winding dirt path leads through a dense forest of tall trees, eventually curving along a stream. In the foreground, a family consisting of an adult and two children is walking along the path. A wooden bench is placed on the path near the stream. The background shows rolling green hills under a clear blue sky.

4. Framework of Climate Actions

4.1 Action Formulation

The Actions within this plan have been formulated based upon their capacity to deliver effective climate action for the city and county of Waterford. The actions were agreed upon following a series of internal engagement meetings with Council departments, consultation with Councillors, library information sessions for the general public, external stakeholder engagement and an online consultation process.

Implementing actions of this plan will require engagement, collaboration, and partnership with a broad range of stakeholders from Government to community level, to deliver on climate action.

WCCC has developed actions using the SMART approach:

1. Specific – clearly define the action and ensure it is capable of being measured
2. Measurable – quantify the action and/or suggest an indicator of progress
3. Assigned - state who will take control of the action and who is accountable for it
4. Realistic – ensure the action is ambitious but realistically achievable
5. Timebound – specify when the action will be achieved by

It should be noted that the actions listed within the Local Authority Climate Action Plan adhere to a timeframe approach.

ACTIVITY	GROUP	OUTCOME
Pre-Consultation: Internal Engagement Meetings	All Council Departments – 10 workshops	Departmental specific Council Department actions formulated.
Pre-Consultation: Councillor Workshops and District meetings	City and County Councillors – 2 Plenary’s and 3 District Meetings	CAP process discussed; area-specific issues raised; draft actions shared
Pre-Consultation Presentation	Environment SPC	CAP process discussed; area-specific issues raised; draft actions shared
Pre-Consultation Presentation	LCDC	CAP process discussed; area-specific issues raised; draft actions shared
Pre-Consultation Workshop	Waterford 2040	CAP process discussed; area-specific issues raised; draft actions shared
Pre-Consultation: Library information sessions	General Public	Dissemination of information, discussion of area-specific issues.
Pre-Consultation Presentation	PPN members	CAP process discussed: area-specific issues raised
Online Pre-Consultation via Consult Portal	All stakeholders	Area-specific issues raised; 22 specific responses recorded.

Table 2. Pre- Consultation engagement

4.2 Plan Vision

To be a climate resilient and low carbon organisation that inspires, leads, and facilitates ambitious and just climate action across the county and city.

4.3 Plan Mission

To realise the ambitious targets set out in the Climate Action and Low Carbon Development (Amendment) Act 2021 while influencing and supporting positive climate action throughout the community, ensuring that Waterford remains an attractive and sustainable place to live, visit, study and do business in, for present and future generations.

The Waterford's Climate Action Plan (CAP) will:

- Ensure that Waterford is ambitious in its approach to climate action and that measures are implemented based upon the best available science
- Identify and deliver a Decarbonizing Zone within the local authority area to act as a test bed for a range of climate mitigation, adaptation and biodiversity measures in a specifically defined area through the identification of projects and outcomes that will assist in the delivery of the National Climate Objective
- Integrate renewable energy technologies into Council business operations for public benefit
- Preserve and promote the cultural heritage and biodiversity of Ireland's oldest city and the wider county area
- Promote the quality of life and healthy living through the delivery of high-quality services
- Encourage a culture of innovative thinking to foster a sustainable economy in Waterford and throughout the Southeast
- Enshrine the National Climate Objective in annual Council work plans to pursue and achieve, by no later than the end of 2050, the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy

4.4 Strategic Goals and Objective

Strategic goals set the context for mitigation and adaptations actions in service of Waterford City and County Council's climate Vision and Mission. The identification and development of such goals establishes a structured approach to the arrangement of climate actions to be addressed.

The five strategic goals of this plan are as follows:

1. Governance and Leadership
2. Built Environment and Transport
3. Natural Environment and Green Infrastructure
4. Communities: Resilience and Just Transition
5. Sustainability and Resource Management

A total list of actions is available in Appendix F for ease of reading.

These actions relate to the area of Waterford outside Waterford City. Actions specifically for Waterford City are addressed in Chapter 5.

It should be noted that all actions listed within the Local Authority Climate Action Plan adhere to a timeframe approach. The actions adhere to the following timeframes:

Short-term – within one year
Medium-term – before 2027
Long-term – before 2029

DECA refers the goals specified in Delivering Effective Climate Action by the Local Government Management Agency¹.



4.4.1 Strategic Goal 1: Governance and Leadership

Waterford City and County Council will implement good governance and ensure effective leadership is shown in the implementation of the Local Authority Climate Action Plan.

The appropriate mechanisms for effective climate adaptation and mitigation will be developed and refined to ensure national and local climate action targets are met.

Objective

To take on a leadership role in the implementation of climate action measures across Waterford City and County, ensuring cross-departmental collaboration within the Council and influencing external stakeholders to lead by example in their areas of responsibility.

General Actions

Action #	Action	Action Type	KPI	Lead Dpt.	Dependencies	Timeframe	DECA Goal
1.1	Ensure Climate Change is included in the Risk Register	Adaptation	Risk Register Updated	Corporate Services/ Climate	Management support	Short	1,2
1.2	Review of building capacity and remote working/ hot desking possibilities for LA staff	Mitigation	Number of appropriate staff remote/ blended working; estimated emissions difference	HR	Cross-departmental collaboration	Short	1,3
1.3	Flextime review considering travel patterns	Mitigation	Average commute time for staff	HR	Policy support	Short	1, 2, 3
1.4	Annual training of LA staff and elective representatives, on topics specific to their own work	Mitigation	Number of staff trained,	Climate	Training	Short	1,3
1.5	Integration of Green Public Procurement into all Section work plans	Mitigation	Number of staff trained % of GPP contracts implemented	Procurement	Training, cross-departmental collaboration	Short	1,2
1.6	Consideration of climate change in large-scale projects (carbon emission analysis as part of all future analysis) and Water-Sensitive Urban Design Certification	Mitigation	Various		Cross-departmental collaboration	Short	1
1.7	Develop system for tagging the costs of climate impacts	Adaptation	System in place	Finance	Training	Short	1,2
1.8	Create climate action delivery social media	Combined	Regular posts/ updates/ public advice in circulation	Climate	Cross-departmental collaboration	Short	1,2
1.9	Consider endorsing Fossil Fuel Non-Proliferation Treaty	Mitigation	Signature of Treaty and ensuing actions	Climate	Cross-departmental collaboration	Short	1,2
1.10	Regional approach to engage libraries to provide online services and reduce paperwork in relation to printing, forms etc.	Mitigation	% Online Services Available, amount of paper used	Libraries	Training, cross-departmental collaboration	Medium	1

4.4.1 Strategic Goal 1: Governance and Leadership

Human Resources

Action #	Action	Action Type	KPI	Lead Dpt.	Dependencies	Timeframe	DECA Goal
1.11	Climate Action Training for Staff – upskilling of the workforce to ensure they are prepared for and capable of adjusting to the impacts of climate change	Combined	Number of staff trained	Climate Action/ HR	Training	Short	1,2
1.12	Job Advertisements/ Descriptions – implementation of climate action/ green criteria into job descriptions where feasible to demonstrate WCCC’s commitment to the climate transition	Combined	Job descriptions updated	HR	Cross-departmental collaboration	Short	1,2
1.13	Staff onboarding – integrate information on WCCC’s climate journey into the onboarding process for new staff	Combined	Staff onboarding process updated	Climate Action/ HR	Cross-departmental collaboration	Short	1,2
1.14	Hybrid work policy – demonstrate the benefits of remote work via emissions savings, km of travel avoided etc	Mitigation	Proposal prepared including estimation of emissions savings	Climate Action/ HR	Cross-departmental collaboration	Short	1,2
1.15	Travel policy – integrate climate action/green criteria into travel policy, review the need for inter-site travel	Mitigation	Update of travel policy	HR	Cross-departmental collaboration	Medium	1,2
1.16	Flexitime policy – review the flexi-time policy to reduce traffic congestion, emissions and travel times for staff travelling at peak times. (non-public facing roles)	Combined	Commuting during lower-traffic times available	HR	Cross-departmental collaboration	Short	1,2
1.17	Deliver an annual Reduce Your Use energy saving campaign	Mitigation	Successful delivery of campaign and measured energy savings	Climate Action	Training, cross-departmental collaboration	Short	1,2
1.18	Green Champion Award – In partnership with the Climate Action Team, devise a scheme to recognize employees engaged in activities which promote and improve climate action in the workplace	Combined	Annual award scheme delivered	Climate Action/ HR	Cross-departmental collaboration	Short	1,2

4.4.1 Strategic Goal 1: Governance and Leadership

Finance

Action #	Action	Action Type	KPI	Lead Dpt.	Dependencies	Timeframe	DECA Goal
1.19	Appropriate recording of the cost of extreme weather to the Council even when there isn't a scheme to claim back funds	Combined	Number of extreme weather costs captured	Finance	Cross-departmental collaboration	Medium	3
1.20	Business case development to also include long term energy and environmental costs	Combined	Business case procedure updated	Climate	Cross-departmental collaboration	Short	1,2,3
1.21	Continuation of Commercial Energy Rates Discount Scheme	Mitigation	# businesses engaged and saving energy	Climate/ Finance	Support from businesses	Short	2,5
1.22	Dedicated annual climate change spend as a proportion of municipal budget or per capita	Combined	€ invested in adaptation or mitigation projects	Senior Management	Budgeting preferences dictated by policy	Short	1,2,3
1.23 ^a	County Council investment in partnership for renewable energy projects where a suitable project is identified ^a	Mitigation	# feasible projects	Planning	Cross-departmental collaboration, Resources	Medium	1,2,4,5
1.24 ^a	Apply for Pathfinder funding and deliver energy projects and continue to apply for Better Energy Community funding ^a	Combined	#projects delivered #tonnes CO2 savings	Climate/ Finance	Cross-departmental collaboration	Medium	1,2
1.25	Development of a Green Bond for Waterford	Combined	€ investment secured	Climate/ Finance	Training, Resources	Medium	1,2
1.26 ^a	Develop a financial instrument to speed up the retrofit of social housing ^a	Mitigation	# houses upgraded	Climate/ Finance	Cross-departmental collaboration, Resources	Medium	1,2,4

^a having due regard to environmental sensitivities such as biodiversity, European Sites, built heritage, protected species, riparian environments, water quality, air quality, landscape and visual amenity, cultural heritage and sensitive human receptors.

4.4.2 Strategic Goal 2: Built Environment and Transport

Objective

To reduce Waterford City and County Council's greenhouse gas emissions by reducing reliance on fossil fuels through increased energy efficiency, a move to active and public transport, deployment of renewable energy technologies and influencing behavioral change internally and externally.

Transport

Action #	Action	Action Type	KPI	Lead Dpt.	Dependencies	Timeframe	DECA Goal
2.1	Deliver Eco-Driver training to WCCC Fleet staff	Mitigation	% Fleet staff trained	Roads /HR	Resources	Short	1,2
2.2 ^b	Replace fossil fuels with renewable fuel in WCCC Fleet whilst ensuring energy/fuel used to power local authority alternative vehicles is sustainably sourced ^b	Mitigation	% of fleet using HVO; (% change in GHG emissions)	Roads/ Climate Action	Cross departmental collaboration, Resources	Medium-Long	1,2
2.3 ^c	Replace fossil fuel vehicles with Electric Vehicles (EV) in WCCC fleet	Mitigation	% of fleet which are EVs	Roads/ Climate Action	Budgeting needs	Medium	1,2
2.4 ^a	Deliver the County EV charging strategy and use findings to apply for funding for the residential neighbourhood EV charging scheme in the areas that have been identified as needing charge points ^a	Mitigation	No. of schemes	ZEVI/Area Offices	Cross-departmental collaboration, Resources, External stakeholder engagement	Medium	4,5
2.5	Add to the existing electric bike fleet and give staff the support they need to use the bikes	Mitigation	Increase in bikes and usage	Active Travel	Budgeting needs	Short	1,2
2.6 ^a	Deliver E-Mobility Hubs (Electric car, scooter and bike depot) where the public can rent vehicles and facilitate e-car clubs ^a	Mitigation	# hubs	Roads	Site availability, resources, external stakeholders, cross-departmental collaboration	Medium	4,5, 6
2.7	Research the feasibility of innovative EV charging solutions (floor charging, overhead charging)	Mitigation	Publication of Electric Vehicle Charging Strategy	Climate	Research, budgeting	Long	5
2.8	Liaise with the NTA to improve systems: -integration between rail and WMATS (North Quays) -Bus stop facilities. Bus Connects	Mitigation	# bus tops Extension of bus routes	Roads	Cross-departmental collaboration	Short	4, 6
2.9 ^a	Collaborate with Active Travel & Area Engineer to identify and work with schools to run a programme for safe routes to school (School Streets). Aim for one school per year in the County ^a	Mitigation	# projects	Roads, Active Travel	Cross-departmental collaboration, stakeholder engagement	Medium	1, 4, 6
2.10	Percentage of parking spaces changed to cycle parking – review of parking needed and funding of bike parking in suitable areas	Mitigation	# cycle parking spaces delivered	Roads, Active Travel	Cross-departmental collaboration, demand	Medium	1, 4
2.11	Anti-idling programme (Link to air pollution/ Health). Low-cost air pollution monitoring	Mitigation	Campaign delivered and elimination of idling outside primary schools	Roads, Community, Climate	External stakeholders, cross-departmental collaboration	Medium	5,6

2.12	Expand air quality monitoring programme to primary schools in towns across the county	Mitigation	# monitors installed	Environment	Resources, External stakeholders	Medium	3, 4, 6
2.13	Develop Fuel Card Policy (including monitoring, KPI - mileage per liter)	Mitigation	Policy delivered	Roads	Cross-departmental collaboration, staff training	Short	1, 2
2.14	Identify and put in place suitable incentives to encourage people to Carpool	Mitigation	Delivery of car pooling app, parking benefits in place	Roads	Cross-departmental collaboration	Medium	1, 2
2.15	Manage car parking through Demand Constraints to make active and public transport more appealing	Mitigation	# car parks involved	Roads/ Senior Management	Research, Cross departmental collaboration	Long	1,2,6
2.16	Review roundabouts for improvements: Dutch style ^a	Mitigation	# of roundabouts	Active Travel	Research and site suitability	Medium	1,3,6
2.17	Deliver a Mobility Plan for the Council and encourage large employers in the city to do the same	Mitigation	% decrease in staff travelling in single occupied vehicles and increase in transport options	Climate Action	Cross departmental collaboration	Short	1,5

^a having due regard to environmental sensitivities such as biodiversity, European Sites, built heritage, protected species, riparian environments, water quality, air quality, landscape and visual amenity, cultural heritage and sensitive human receptors.

^b whilst ensuring energy/fuel used to power local authority alternative vehicles is sustainably sourced.

^c whilst ensuring appropriate end-of-life management practices are in place for Electric Vehicles under the ownership of local authorities.

4.4.2 Strategic Goal 2: Built Environment and Transport

Roads Management

Action #	Action	Action Type	KPI	Lead Dpt.	Timeframe	Depend.	DECA Goal
2.18	Integration of Sustainable Urban Drainage Systems and other nature-based solutions into plan ^d	Adaptation	# of schemes adapted, reduction in flood-related events	Planning, Roads	Short	Training, cross-departmental collaboration	1,3
2.19	Engage with Active Travel goals -secure cycle parking in main car parks, cycle lanes designed for daily commuter use (segregated if possible, curbing not plastic wands, design process to include consultation with cycling community) ^a	Mitigation	km of cycle infra-structure implemented	Active Travel, Roads	Medium	Cross-departmental collaboration	4, 6
2.20	Cycle priority at junctions to enhance safety and promote safe cycling. Incorporation of Advance Stop Lines (bike box) for cyclists at junctions	Mitigation	# of junctions targeted	Roads	Short	Cross-departmental collaboration	6
2.21	Move away from temporary car parks to reduce car-orientated infrastructure	Mitigation	CO ₂ emissions savings, reduction in traffic congestion	Roads	Medium	Cross-departmental collaboration	1,3 6
2.22	Reduction of the heat island effect in urban areas (green areas as well as paving in any pedestrianization project and increased native tree cover)	Combined	Measures taken to reduce temperatures e.g. urban greening. % green space increased, temperatures measured	Planning	Medium	Resources, training	1,3
2.23	Make European Car Free Day/Clean Air Days/Bike Week part of the local agenda on an annual basis	Mitigation	Engagement with event, CO ₂ emissions savings	Climate Action, Roads	Short	Political agreement, cross-departmental collaboration	4,5,6
2.24	Identify traffic "hot spots" and implement management plans	Mitigation	Congestion reductions	Roads	Medium	Cross-departmental collaboration	1,3
2.25	Trial of new road materials with lower carbon values in partnership with TII	Combined	CO ₂ emissions savings	Roads	Short	Cross-departmental collaboration	1,2
2.26	Speed limit review as per Waterford Metro-politan Area Transport Strategy - 30km/hr. on urban roads ^e	Mitigation	Scoping report, no. of routes addressed	Roads	Short	Political agreement, cross-departmental collaboration	1
2.27	Survey of roads/ bridges/infrastructures vulnerable to extreme weather events, produce vulnerability report and reinforce those structures ^f	Combined	Bridges identified	Roads	Medium	Cross-departmental collaboration	1,3

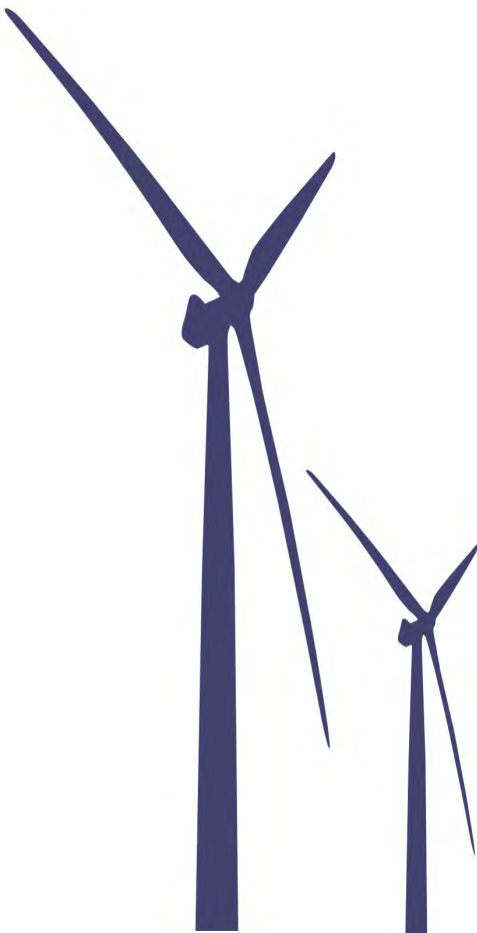
2.28	Enforcement of laws against parking on footpaths or in disabled spaces/higher foot-paths to discourage illegal parking. Ensure that all footpaths are sufficiently higher than the adjoining roadway to discourage parking on footpaths	Mitigation	Reduction in illegal parking	Roads	Short	Political agreement, cross-departmental collaboration	1
2.29	Ensure reuse of road planings and other materials	Mitigation	Cost-savings	Roads	Short	Training, cross-departmental collaboration	1,2
2.30	Engage with TII to implement Green Procurement priority in road specifications	Mitigation	GPP implemented	Roads	Short	External stakeholders	1,2,4
2.31	Inclusion of Climate Change in Asset Management software (MapRoads)	Combined	Areas with climate change integrated	Roads	Short	Training, cross-departmental collaboration	1,3
2.32	Identifying 'Critical Infrastructure Routes' for emergency services in extreme weather	Adaptation	Routes identified	Roads	Medium	Cross-departmental collaboration	1

^a having due regard to environmental sensitivities such as biodiversity, European Sites, built heritage, protected species, riparian environments, water quality, air quality, landscape and visual amenity, cultural heritage and sensitive human receptors.

^d ensure all Sustainable Urban Drainage Systems (SuDs) related construction works are designed and implemented in a manner that does not result in the occurrence of significant adverse environmental effects.

^e having appropriate regard to environmental sensitivities such as traffic and transport constraints and aspects.

^f having due regard to the need to appropriately protect and conserve protected structures in accordance with relevant protected structures regulations, and the need to not negatively impinge on any protected species or European sites.



4.4.2 Strategic Goal 2: Built Environment and Transport

Planning

Action #	Action	Action Type	KPI	Lead Dpt.	Time-frame	Depend.	DECA Goal
2.33	Prepare and apply a protocol to enable and require a preset standard for 'Climate Proofing' including water sensitive urban design, Rainwater Management Plans, and Life Cycle Assessment of all local authority led plans, purchases and investment. Ensuring the protocol has appropriate regard to environmental protection requirements and opportunities for promoting climate action co-benefits	Adaptation	<ul style="list-style-type: none"> Develop Climate Proofing certification Apply Climate Proofing certification to all Part 8 and Section 177AE applications to An Bord Pleanala 	Planning	Short	Training, external stakeholders, resources	1,2,3
2.34	Planning decisions process to assess impact of new development proposed in areas determined to have a water supply and quality constraint (i.e., from climate related drought, extreme rainfall events). Assess impact on wastewater discharges and DWWTS and mitigate impacts	Adaptation	<ul style="list-style-type: none"> Preparation of a methodology/ protocol Preparation of guidance for developments proposed in areas where water supply is a constraint 	Planning	Short	Training, external stakeholders, resources	1,2,3
2.35	Regular programme of climate training for Planners (including whole life cycle assessment, rainwater management, Sustainable Urban Drainage etc.)	Combined	Number of planners trained	Planning	Short	Training	1, 3
2.36	Carry out a geothermal survey of the county to identify areas with the greatest opportunity for heat production near Council buildings. Survey will include a feasibility assessment for the incorporation of Geothermal into existing heating systems	Mitigation	Survey complete, areas identified	Planning, Climate, Information Systems	Medium	External stakeholders	1
2.37	Life Cycle Analysis methodology, consideration of carbon emissions, and consideration of water quality impact to be used in housing and building works planning and for planning permission from 2027 following adoption of National Policy on Life Cycle Assessment	Mitigation	Methodology deployed	Planning	Medium	Resources, training, external stakeholders	1,2,3
2.38	Support new privately owned regeneration through facilitating a cooperative community with a collective skillset to tackle renovation projects from within its own resources, building upon work conducted under the URDF ^a	Combined	Regeneration schemes implemented	Housing, Planning	Medium	Training, resources, external stakeholders	4,5
2.39	Any new homes bought by WCCC built to Zero Carbon from 2025	Mitigation	# homes built to zero carbon	Housing, Planning	Medium	Resources	1, 2
2.40	Inclusion of original hedgerows as a feature within green site development (sightlines allowing)	Adaptation	Amount (km) of hedgerows retained	Planning	Short	Training	1, 3

^ahaving due regard to environmental sensitivities such as biodiversity, European Sites, built heritage, protected species, riparian environments, water quality, air quality, landscape and visual amenity, cultural heritage and sensitive human receptors.

4.4.2 Strategic Goal 2: Built Environment and Transport

Active Transport

Action #	Action	Action Type	KPI	Lead Dpt.	Time-frame	Depend.	DECA Goal
2.41	Request TFI bicycles to be extended further out of the city	Mitigation	Areas targeted	Active Travel	Short	External stakeholders	1, 6
2.42	Bicycle Delivery trial for business in Dun-garvan and Kilmacthomas	Mitigation	Trial run and success	Active Travel	Medium	Cross-departmental collaboration, external stakeholders	1,4,5
2.43	Assessment of existing Bicycle Libraries to establish feasibility in Waterford County	Mitigation	Feasibility study, areas identified	Active Travel	Short	External stakeholders, training, resources	1
2.44	Additional km of upgraded footpaths by 2029 - 23.16 in the County, 3km in the City ^a	Mitigation	Km of footpath upgraded	Active Travel	Long	Resources, cross-departmental collaboration	1,3,6
2.45	Additional km of new cycle lanes - 10.62km in the County, 33.92km in the city ^a	Mitigation	Km of cycle lanes implemented	Active Travel	Long	Resources, cross-departmental collaboration	1,3,6
2.46	Use asphalt art in street design to trial different street layouts that promote Active Travel	Mitigation	Streets targeted	Active Travel	Short	Resources, cross-departmental collaboration	2,3,4,6
2.47	Review of car parking spaces once Active Travel, Car Pool and Public Transport have been put in place and consider change of use of small areas (gardens, skate parks etc)	Mitigation	Review carried out, spaces amended	Roads	Medium	Resources, cross-departmental collaboration	3,4,6
2.48	Cycle parking target - cycle parking for 5,000 bikes across the County ^a	Mitigation	Spaces allocated	Active Travel	Long	Resources, cross-departmental collaboration	1,3,6
2.49	Investigate renewable back-up power generation for servers vulnerable to power outages (Dungarvan) ^a	Adaptation	Scoping report, options identified, SWOT Test	IS	Short	Resources, training	1,2,3
2.50	Inclusion of appropriate records management in staff Green Team Challenge	Mitigation	Record management system upgraded	IS	Short	Training	1,2
2.51	Management system for removing articles after statutory period for keeping them has lapsed	Mitigation	Review of system, alternatives identified	IS	Short	Cross-departmental collaboration	1,2
2.52	Use WatMaps to provide information on sustainability features for public access	Combined	Features integrated	IS	Medium	Cross-departmental collaboration	1,4
2.53	Develop a County Heritage Plan with climate action as a cross-cutting theme/goal (Climate Proofed). Having due regard to the need to appropriately protect, conserve and enhance important habitats and species and European sites and protect built heritage	Combined	Plan developed and adopted	Heritage and Conservation Depts (WCCC)	Medium	Cross-departmental collaboration	1,2,3
2.54	Undertake climate risk assessment of local authority owned built heritage assets to identify buildings likely to be impacted by extreme weather or erosion	Combined	Assessment carried out, heritage assets identified	Heritage and Conservation Depts (WCCC)	Medium	External stakeholders	1,3

2.55	Regionally develop projects to promote adaptive reuse of historic structures using exemplar retrofitting projects, life cycle assessment and carbon budgets to demonstrate climate value ^a	Combined	Projects developed	Heritage and Conservation Depts (WCCC)	Medium	Resources, external stakeholders, cross-departmental collaboration	1,3,4,6
2.56	Ensure climate-proofing of heritage funding administered by WCCC, with an emphasis on improved energy performance along with the main goal of conservation of building	Mitigation	Buildings identified for improvements, funding streams established	Heritage and Conservation Depts (WCCC)	Medium	External stakeholders, training, cross-departmental collaboration	1,2,4
2.57	Design an innovative and creative project to use archaeological (or other) sites to creatively engage local communities with climate change and heritage and to demonstrate the impacts of climate change	Combined	Project identified and implemented	Heritage and Conservation Depts (WCCC)	Short	Resources, external stakeholders, cross-departmental collaboration	3,4
2.58	Create a training programme for local authority staff in the use of traditional materials and skills e.g. lime and stonemasonry, to assist in conducting the conservation of traditional structures to increase their climate resilience and raise awareness of the importance of traditional skills and materials	Combined	Programme formulated, staff identified	Heritage and Conservation Depts (WCCC)	Short	Resources, training	1,3
2.59	Targeting of social homes still using solid fuels, or older social homes, as priority of retrofitting program. Deliver retrofitting projects in a manner that has due regard to environmental sensitivities such as protected species, biodiversity and sensitive human receptors	Mitigation	# of homes targeted, reduction in CO ₂ emissions	Climate, Housing	Medium	Resources	1,2,6
2.60	Continue moving to central heating systems only. Deliver retrofitting projects in a manner that has due regard to environmental sensitivities such as protected species, biodiversity, and sensitive human receptors	Mitigation	Systems migrated	Housing	Short	Resources	1,2
2.61	Continue delivering the Croi Conaithe programme, bringing vacant homes back to use ^a	Mitigation	Vacant homes repurposed	Housing	Medium	Resources, cross-departmental collaboration	1,6
2.62	The use of Building Passports to increase BERs and building energy performance incrementally	Mitigation	Building passports implemented and on display	Housing	Short	Resources, training	1,2,6
2.63	Management of greens to incorporate nature	Mitigation	Greens identified and managed, flora and fauna identified	Housing	Short	Resources, training	1,3
2.64	Avoid fossil fuel heating systems and continue to replace coal and oil heating systems ^a	Mitigation	Systems replaced, CO ₂ emissions saved	Housing	Short	Resources, external stakeholders, cross-departmental collaboration	1,2
2.65	BER study on all social housing without a BER	Mitigation	Study completed	Housing	Medium	Resources	1,3,6
2.66	Comparison study of energy efficient social housing with traditional housing regarding fuel costs, air pollution, water efficiency etc.	Mitigation	Study completed	Housing	Short	Resources	1,4,6

2.67	Upgrade at least 25% of social houses (E/F/G BER to BER B2 or higher). This figure is based on the current funding allocation and may increase	Mitigation	No. of homes up-graded	Housing	Medium	Resources	1,2,6
2.68	Develop a number of Virtual Power Plants in the county where houses in Energy Poverty will be able to buy excess energy produced by solar PV on community build-ings at a reduced rate - partnership project with SEEA	Mitigation	Power plants implemented, CO ₂ emission saved	Housing	Medium	Resources, cross-departmental collaboration	4,6
2.69	50% improvement in energy efficiency across all Council operations	Mitigation	CO ₂ emissions saved	Climate Action	Medium	Resources, cross-departmental collaboration	1,2
2.70	Phase out fossil-fuel based boilers from Council buildings by 2025 ^a	Mitigation	Boilers transitioned	Climate Action	Medium	Cross-departmental collaboration	1,2
2.71	Replace streetlighting with LED energy efficient equivalents and enable lighting controls to save energy while ensuring the lumen levels and spectral range are maintained or reduced/controlled to avoid effects on biodiversity	Mitigation	No. of street lights upgraded	Roads	Medium	Resources, cross-departmental collaboration	1,2
2.72	Addition of renewable energy to Council buildings that have a floor area of greater than 250m ² and do not have conservation restrictions ^a	Mitigation	Buildings identified, renewable energy systems implemented	Climate Action	Medium	Resources, cross-departmental collaboration	1,2
2.73	Source electricity with 100% renewables content - coordinated effort with other Councils	Mitigation	Annual review showing % of renewable content	Climate Action	Medium	Resources, cross-departmental collaboration	1,2
2.74	Assess Council land for Renewable Energy suitability. A target for example of 5MWh of installed capacity across the County developed in conjunction with a community would require a solar farms of a 10ha size could be achieved ^h	Mitigation	If solar is used WCCC can produce 4,750,000 kWh annually	Climate Action	Long	Resources, cross-departmental collaboration	1,2,5
2.75	Space review for office space - hot desking policy to follow	Mitigation	Policy implemented	Corporate Services	Short	Cross-departmental collaboration	1,2

^a having due regard to environmental sensitivities such as biodiversity, European Sites, built heritage, protected species, riparian environments, water quality, air quality, landscape and visual amenity, cultural heritage and sensitive human receptors.

^e having appropriate regard to environmental sensitivities such as traffic and transport constraints and aspects.

^h having due regard planning and environmental considerations

4.4.3 Strategic Goal 3: Natural Environment and Green Infrastructure

Objective

To protect and enhance Waterford's blue and green infrastructure to ensure biodiversity is supported, nourished and expanded upon, to mitigate against climate change risks and to enhance the health and wellbeing of all through enhanced connection with and access to nature.

Natural Heritage and Biodiversity

Action #	Action	Action Type	KPI	Lead Dpt.	Time-frame	Depend.	DECA Goal
3.1	Complete county habitat and ecosystem service surveys with a focus on carbon sinks and stores and identify sites suitable for restoration (wetlands, woodlands, sand dunes, saltmarsh and sea grass beds) ⁱ	Combined	Sites surveyed, vulnerable species identified, carbon sequestered, restoration areas identified, no loss of wetlands	Heritage / Biodiversity	Budget	Medium	1,3
3.2	Develop a County Biodiversity Plan with climate action as a cross-cutting theme/goal. Use the County Biodiversity Plan as a vehicle to highlight a range of biodiversity opportunities that can be taken up at farm level with particular emphasis on the new ECO scheme. Highlight schemes for biodiversity opportunities available to farmers ⁱ	Combined	Plan adopted	Heritage / Biodiversity	Cross-departmental collaboration	Short	1,2,3
3.3	Undertake climate risk assessment of local authority owned natural heritage assets and prepare reinforcement works for those assets that need protection	Adaptation	Risk assessment completed and reinforcement works commenced	Heritage / Biodiversity	External stakeholders	Medium	1,3
3.4	Support the establishment of a National Climate Framework similar to the National Pollinator Plan where resources and knowledge is provided to the public on Climate Action	Combined	Framework Developed	Heritage / Biodiversity	External stakeholders, cross-departmental collaboration, resources	Medium	1,3,4
3.5	Develop nature-based flooding approaches in collaboration with relevant stakeholders. Assessment made at whole-catchment level (catchment as the management unit). Prioritise delivery of Catchment Flood Risk Assessment and Management (CFRAM) ^d	Combined	Approaches identified and stakeholders engaged	Planning	External stakeholders, cross-departmental collaboration, resources	Medium	1,3
3.6	Source and operate a tree health management app to identify trends in tree health and to maximise the chances of successful planting. The app will be used to manage all County Council caredfor trees	Mitigation	App developed	Environment/ I.S.	Cross-departmental collaboration, external stakeholders	Short	1,3
3.7	Continue Marram grass planting and dune stabilisation works where possible. Investigate other options such as beach nourishment and measures similar to the Dutch Sand Engine	Mitigation	Grass planted; dunes stabilised	Environment	Resources	Short	3
3.8	Map green infrastructure (GI) – identify wildlife corridors, conservation and restoration spaces. Under the County Development Plan a Blue Green Infrastructure Strategy is being developed	Combined	Infrastructure mapped	Environment/ Planning/I.S.	Budget, training	Short	1

3.9	To carry out a feasibility assessment to determine if it is possible to identify waterbodies that are both particularly vulnerable to extreme water events associated with climate change, and at risk of not meeting the requirements of the EU Water Framework Directive	Combined	Completion of feasibility assessment	Heritage / Biodiversity	Budget	Medium	1,3
3.10	Conduct a public awareness campaign on maintenance of roadside trees to reduce unnecessary felling of healthy trees and loss of carbon stock. (Inclusion of guidance in yearly letters)	Combined	Campaign reach, improvement in tree stock	Heritage	Cross-departmental collaboration, external stakeholders	Short	1,3,4
3.11	Prepare a guidance document and training on the importance of, quality rating and sustainable management of the hedge rows and riparian areas, for Council staff and external stakeholders including farmers/landowners	Combined	Document created and distributed Number of staff trained Annual training event held	Heritage	Cross-departmental collaboration, resources	Short	1,3,4
3.12	Deliver a yearly increase in tree planting on local authority lands and in private and public	Combined	Tree cover % increase	Heritage / Biodiversity	Cross-departmental collaboration	Short	1,3,4
3.13	Identify sites for large scale native and mixed woodland planting and set targets for planting and maintaining native trees in urban and rural areas. Where possible tree pits should integrate into the surface water drainage to provide water quality benefits	Combined	Survey complete, policy adopted, number of trees planted at MD level, survey of carbon capture as a result of tree planting annually, digital system of recording and monitoring in place	Heritage / Biodiversity	Cross-departmental collaboration, budget	Short	1,3,4
3.14	Zostera (Seagrass) Bed survey in Dungarvan and Tramore followed by a protection and awareness programme and ongoing monitoring	Mitigation	Survey conducted; vulnerable areas identified	Environment/ Heritage	Resources, external stakeholders	Short	1,3,4
3.15	Incorporation of biodiversity gains rather than just minimising loss of biodiversity into Development Management Standards	Mitigation	Progression in rates of biodiversity	All Council departments	Resources, training	Short	1,3
3.16	Identify sites and opportunities to work with other agencies and communities on restoration of water levels and 'slow the flow' measures to mitigate flood risk ⁱ	Adaptation	Ha of land protected	Heritage / Biodiversity	External stakeholders	Medium	1,3,4
3.17	Deliver on a yearly increase in the application of Blue-Green Infrastructure, Nature Based-Solutions (NBS) and Integrated Rainwater Management in local authority, private and public projects. Collate a database and spatial map to track progress ^a	Combined	Information collection, implementation of same into database • Develop a protocol for the application of NBS to Council projects • Training of staff on NBS alternatives • All projects to have a NBS element • At least one example (per year) of best practice in NBS to manage surface water	Planning/ Roads	Cross-departmental collaboration	Long	1,3,4,5
3.18	Support the delivery of creative projects to address Climate Action and Resilience	Combined	Projects supported	Heritage / Biodiversity	Resources, cross-departmental collaboration	Medium	4,5

3.19	Prepare strategic wildfire management plan for high-risk areas ^k	Mitigation	Management plan prepared	Fire Services	External stakeholders, cross-departmental collaboration	Short	1,3
3.20	Investment in increased green space in urban areas including a park of regional significance in Waterford city ^l	Combined	% of green space available within urban areas	Climate/ Planning	Cross-departmental collaboration, resources	Medium	1,3
3.21	Support the development of a nature corridor across a number of rural communities in Waterford	Mitigation	# of nature corridors	Heritage / Biodiversity	Resources, cross-departmental collaboration	Medium	1,3,4
3.22	Act on the findings of the Copper Coast stabilisation report ^a	Mitigation	Cliff stabilisation plans enacted	Environment	Resources	Medium	3
3.23	Input Nature Recovery Law targets when they are put in place	Combined	Targets implemented	Environment	Cross-departmental collaboration		

^a having due regard to environmental sensitivities such as biodiversity, European Sites, built heritage, protected species, riparian environments, water quality, air quality, landscape and visual amenity, cultural heritage and sensitive human receptors.

^d ensure all Sustainable Urban Drainage Systems (SuDs) related construction works are designed and implemented in a manner that does not result in the occurrence of significant adverse environmental effects.

ⁱ promote - through control or influence as appropriate - the carrying out of development supported by this action in a manner that has due regard to opportunities to promote nature-based solutions and Sustainable Drainage Systems, and environmental sensitivities at these locations, including water quality, biodiversity, European sites, riparian corridors and aquatic ecology, visual amenity and recreation and amenity value.

^k ecological expertise shall be sought during plan preparation. The plan and shall have due regard to the need to appropriately protect important habitats.

^l ensuring local authority led development is carried out in a manner that has due regard to relevant planning and environmental protection requirements.



4.4.3 Strategic Goal 3: Natural Environment and Green Infrastructure

Water Quality

Action #	Action	Action Type	KPI	Lead Dpt.	Time-frame	Depend.	DECA Goal
3.24	Signpost farms towards the Teagasc emissions reduction programme on Farm Inspection Visits	Combined	Farm uptake	Water	External stakeholders	Medium	1,3,4
3.25	Deliver a number of water protection projects focused on preventing nitrate run off from farms	Mitigation	# Exemplar projects, # toolkits delivered	Water	External stakeholders	Medium	1,3,4
3.26	Investigate the possibility of using seaweed at the coast to reduce the amount of nitrates going near Seagrass plantations	Mitigation	Investigative study	Climate Action	External stakeholders, budget	Short	1,3,4
3.27	Support and inform a climate-proofing programme for natural water resources to manage flooding at the catchment level. Through advising the farming community and running information campaigns ^a	Combined	<ul style="list-style-type: none"> • Delivery of the study within 18 months of adoption of the CAP • Roll of out a support programme to achieve the recommendations as set out in the study 	Water	External stakeholders, cross-departmental collaboration	Medium	1,3,4
3.28	Increase the amount of permeable spaces in the County. Ensure that new housing and streetscapes incorporate permeability (Nature Based Solutions and Sustainable Urban Drainage Systems) ^d	Adaptation	% of permeable spaces deployed	Planning/Roads/Active Travel	Cross-departmental collaboration, training, resources	Medium	1,3
3.29	Increased rainfall to be taken into account at building design stage and rainwater harvesting	Adaptation	Buildings targeted	Planning	Cross-departmental collaboration, training	Short	1,3
3.30	Carry out a review of Section 4 Discharge to Water Licenses to determine if they are fit for purpose to meet projected climate change related risks such as hydrological changes and water temperature increases	Combined	# licences reviewed, # licences updated	Water	External stakeholders, cross-departmental collaboration	Medium	1,3

^a having due regard to environmental sensitivities such as biodiversity, European Sites, built heritage, protected species, riparian environments, water quality, air quality, landscape and visual amenity, cultural heritage and sensitive human receptors.

4.4.4 Strategic Goal 4: Communities: Resilience and Transition

Objective

To give all people of Waterford an opportunity to participate in the transition to a low carbon economy that will build community, develop skills and benefit local businesses.

Economic Development/Communities

Action #	Action	Action Type	KPI	Lead Dpt.	Dependenc.	Time-frame	DECA Goal
4.1	Climate proofing of Community Funded Projects (e.g., Town & Village) (Sustainability and Climate Change scoring on grant assessment) ^a	Combined	Market analysis of availability and affordability of green products, site analysis for electrical load capacity. Support streams for grant administrators	Economic Development (Rural Regeneration)	Cross-departmental collaboration	Short	1,4
4.2	Deliver on the Climate Actions in the LECP	Combined	Actions delivered	Economic Development	Cross-departmental collaboration	Medium	1
4.3	Support & encourage sustainable energy communities to engage in climate action at local level through the provision of Bridge funding for Energy master Plans under the MOU through the SEAI SEC Programme	Combined	# energy masterplans supported	Climate Action	Cross departmental collaboration, external stakeholders	Short	1,4,5
4.4	Incorporating Climate Actions in Heritage Week, Biodiversity Week, Green Schools and Heritage in Schools (Run by Heritage Council)	Combined	Cost-savings and amount of printing avoided	Heritage/Climate Action	Cross-departmental collaboration	Short	1,2,4
4.5	Renewable Energy Use for festivals. Review affordability of HVO generators from local suppliers, whilst ensuring energy/fuel used is sustainably sourced. Review infrastructure needed to put in mains power for future festivals - having due regard to environmental sensitivities such as European Sites and biodiversity related sensitivities	Mitigation	# of communities target-ed per annum	Economic Development/ Festivals/Culture	Availability of resources, feasibility, cross-departmental collaboration	Short	2,4,5
4.6	Engagement/education plan for businesses about city centre transport & pedestrianisation using case study	Mitigation	Footfall metrics, emissions saved	Communities /Economic Development	External stakeholders, cross-departmental collaboration	Short	1,4,5,6
4.7	Develop an engagement/ education plan for biodiversity/ pollinator areas for community groups	Combined	On-line information resources on Council net-works • Training courses/webinars delivered • Prepare guidance note for organisers	Communities	Cross-departmental collaboration	Short	1,3,4
4.8	Undertake a feasibility study into sustainable transport methods in festival/event transport planning	Mitigation	Feasibility study completed	Economic Development/ Festivals	Cross-departmental collaboration	Medium	1,2,4

4.9	Identify green criteria for procuring the work of artists & vendors, and sustainability criteria for tenders & grants (ISO 14001)	Mitigation	Criteria identified, # of green tenders	Economic Development	Cross-departmental collaboration	Short	2
4.10	Continue to support and promote remote working hubs	Mitigation	# hubs supported	Economic Development	Cross-departmental collaboration	Short	2
4.11	Develop a Toolkit for communities and organisations (SETU, LEO) to deliver climate action, support sustainability reps where appropriate. List of actions	Combined	Business uptake/engagement	Climate Action	Cross-departmental collaboration	Medium	1,4,5
4.12	Growing Waterford' project deliver for food growing with schools, libraries, households (funding dependant)	Mitigation	Strategy developed, strategy uptake	Climate Action	Cross-departmental collaboration	Short	1
4.13	Develop an engagement/education plan for businesses on circular economy	Mitigation	Engagement plan developed, business uptake	Economic Development	Cross-departmental collaboration	Short	5
4.14	Incorporate climate action considerations into events. Implement use of strong branding for low emission projects	Combined	Representation at events	Economic Development	Cross-departmental collaboration	Short	4
4.15	Climate proof funding programmes – use of materials, waste, review policy on single-use products	Combined	Programmes implemented	Economic Development	Cross-departmental collaboration	Short	5
4.16	Plan events around 'playful city' principles, E.g. Community Car Free afternoons on Sundays or on days of community festivals	Combined	Streets identified, infrastructure implemented	Economic Development	Cross-departmental collaboration	Medium	4
4.17	Online application portal for Waterford Communities Funding	Mitigation	Reduction in printing and paper usage	Communities	Cross-departmental collaboration	Short	4
4.18	Increase in number of community gardens & rewilding projects on greens and spaces operated by the Council	Combined	# of gardens and projects implemented	Communities	Cross-departmental collaboration	Short	4
4.19	Support & encourage sustainable energy communities to engage in climate action at local level through the provision of Bridge funding for Energy master Plans	Combined	Communities Engaged	Climate Action	Cross-departmental collaboration	Short	4
4.20	Fulfilling green tech and climate change commitments under LEADER Programme 2023 to 2027	Mitigation	Volume of projects, claims and expenditure under key climate change themes	Communities	Cross-departmental collaboration	Long	1,2,4,5
4.21	Deliver the Community Climate Action Fund overseeing the delivery of up to 30 climate action projects across the county	Combined	Number of successful projects	Climate Action	Cross-departmental collaboration	Long	1,4
4.22	Deliver a Carbon Neutral Waterford Business programme with businesses across the County	Mitigation	# of businesses reducing their carbon emissions	Climate Action	External stakeholders, cross-departmental collaboration	Short	1,5,6
4.23	Put in place a Coast Guardians programme to report on local erosion and environmental issues to the Council	Adaptation	Programme in place	Climate Action	External stakeholders, cross-departmental collaboration	Medium	1,3

4.24	Deliver roaming “Climate Cafes” across Waterford where people can come to discuss Climate Change and the opportunities there are in their lives to save energy, access grants etc	Combined	Number of Café events hosted	Climate Action	Resources	Short	1,4,5
4.25	Support the delivery of business actions in the LECP such as the creation of a sustainable business competition, supports for businesses transitioning to the green economy and collaboration with large employers in the County	Combined	Number of businesses engaged	Climate Action	Collaboration with external bodies	Medium	5
4.26	Climate action team presence at festivals to raise awareness of Climate issues and opportunities	Combined	Representation at all major festivals	Climate Action	Resources	Short	1,4
4.27	To cater for climate change immigrants/refugees that have been displaced due	Adaptation	That WCCC can respond to need	Climate Action	External Stakeholders, cross-departmental collaboration	Long	6
4.28	Campaign to promote locally produced and organic food, include training in appropriate sales and marketing for farmers and sellers to local markets. Highlighting the work of GIY and similar organisations	Mitigation	Number of campaigns delivered	Climate Action	External Stakeholders, cross-departmental collaboration	Medium	1
4.29	Prepare feasibility study to facilitate a pilot Anaerobic Digester project in con-unction with other stakeholders (farmers, agri-business and others) ¹	Mitigation	Study delivered	Climate Action	External Stakeholders	Medium	5
4.30	Create a map on WatMaps where Climate Action locations and project details can be logged and accessed by the public	Combined	Maps created and amount of engagement	Climate Action	External Stakeholders, cross-departmental collaboration	Long	1,3
4.31	Create regular Climate Communications to keep the public up to date on how they can contribute to Climate Action in Waterford	Mitigation	# of organisations engaging	Climate Action	Cross-departmental collaboration	Short	4,5
4.32	Guided by the Memorandum of Understanding signed between the GAA and CCMA, towards working together on sustainability and climate action projects, engage with the Green Club Programme	Combined	LA Lead in place, Collection of case study examples of projects supported by the local authority (Annual collection)	Climate Action	External Stakeholders	Short	3

^a having due regard to environmental sensitivities such as biodiversity, European Sites, built heritage, protected species, riparian environments, water quality, air quality, landscape and visual amenity, cultural heritage and sensitive human receptors.

¹ ensuring local authority led development is carried out in a manner that has due regard to relevant planning and environmental protection requirements.

4.4.5 Strategic Goal 5: Sustainability and Resource Management

Objective

To ensure waste generated is reduced, removed and reused through the implementation of effective waste management policies and procedures and to shift away from a “take-make-waste” model towards a more sustainable and circular economy to create long-term environmental, economic and social benefits.

Waste

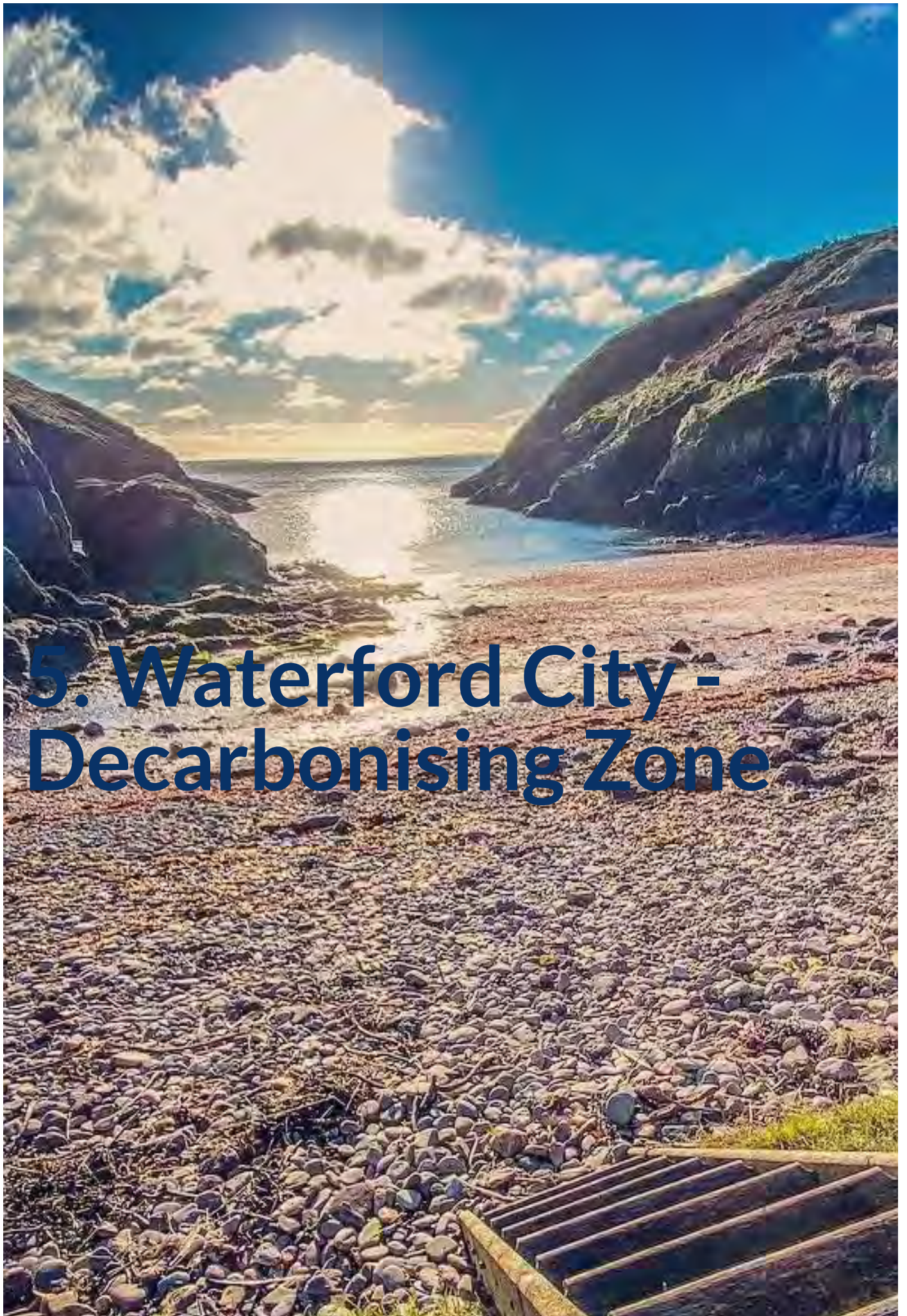
Action #	Action	Action Type	KPI	Lead Dpt.	Dependenc.	Time-frame	DECA Goal
5.1	Circular Economy application of C&D waste at Local Au-thority sites - improv-ing segregation, reuse and recycling	Mitigation	% C&D waste recovered	Environment	External stakeholders, cross-departmental collaboration, Training	Medium	1, 2
5.2	Reduce waste vol-umes in-house by 40%	Mitigation	% reduction	Environment	Cross-departmental collaboration	Medium	1, 2
5.3	Increase % of municipal waste recycled from municipal buildings annually	Mitigation	% increase	Environment	Cross-departmental collaboration	Medium	1, 2
5.4	Provide printing figures to staff to raise awareness of paper wastage	Mitigation	% decrease	Environment	External stakeholders, budget	Short	1
5.5	Facilitate Repair and Reuse pop up shops	Mitigation	# events annually	Economic/Libraries	Budget	Medium	1, 4, 5
5.6	Implement e-signatures for forms to save paper	Mitigation	% reduction in printing	Information Systems (IS)	Cross-departmental collaboration, budget	Short	1, 2
5.7	Implement public water fountains across the city and county	Combined	# water fountains	Environment	Budgeting, cross-departmental collaboration	Short	1
5.8	Council green waste to be used in the bioeconomy	Mitigation	Tonnes of waste going to make biogas	Environment	Cross-departmental collaboration, budget, external stakeholders	Medium	1, 2
5.9	Ensure that Circular Economy principles are adhered to when furnishing and decorating Council buildings	Mitigation	% Council projects using recovered materials	Special projects	Cross-departmental collaboration	Short	1, 2, 5
5.10	Enhance the rollout of the bringbank sensor scheme	Combined	# tonnes recycled properly	Environment	Resources	Medium	1, 4
5.11	Run waste engagement campaigns through the library services including events such as seed library exchanges, clothes swaps and repair cafes	Mitigation	Campaigns delivered	Environment	Budget, cross-departmental collaboration	Short	1

4.4.5 Strategic Goal 5: Sustainability and Resource Management

Green Public Procurement

Action #	Action	Action Type	KPI	Lead Dpt.	Dependenc.	Time-frame	DECA Goal
5.12	GPP “reboot” strategy to integrate GPP into all Council practices	Mitigation	# Staff with understanding of GPP, training metrics, portal analysis	Procurement/Climate	Training, cross-departmental collaboration	Short	1,2
5.13	Devise “interactive” training for the E-tenders platform to ensure all staff involved in tendering are comfortable with the platform	Mitigation	# Staff completing training	Procurement/Climate	Training	Medium	1,2
5.14	Ensure market engagement with GPP and circular economy principles (where feasible)	Mitigation	# Local business uptake of GPP, Waste reduction figures	Procurement/Climate	Cross-departmental collaboration	Medium	1,2
5.15	Instate recurring cross-departmental meetings to report on GPP implementation progress across the Council	Mitigation	Departmental feedback and reports ran on GPP	Procurement/Climate	Cross-departmental collaboration	Medium	1,2
5.16	Staff Training for Green Public Procurement	Mitigation	# staff using GPP regularly	Procurement/Climate	Training	Short	1,2
5.17	Develop a GPP guidance booklet for staff i.e. a how-to guide for GPP				Cross-departmental collaboration		1,2





5. Waterford City - Decarbonising Zone

5.1 Summary of Waterford’s Decarbonising Zone emissions profile

Waterford City was chosen as Waterford’s Decarbonising Zone in 2021. A Decarbonising Zone is an area chosen to act as a test bed for a range of climate mitigation, adaptation and biodiversity measures that will assist in the delivery of the National Climate Objective of a 51% reduction in greenhouse gas emissions by 2030, compared to a 2018 baseline.

Waterford City was chosen as Waterford’s Decarbonising Zone due to the strong research presence of the Southeast Technological University (SETU), strong business base and array of innovative small and medium enterprises within a close proximity. There are also a large number of buildings and spaces operated by the Council where climate adaptation and mitigation measures can be trialled. Waterford City being the County’s Decarbonisation Zone ties in with the Waterford 2040 strategy¹ to make Waterford City an appealing and sustainable place to live, work and do business.

In April 2021, WCCC published the Roadmap to a Carbon Neutral Waterford² laying out a number of actions that could facilitate emissions reductions by 2040 and climate adaptation measures that could be taken by businesses, households and in our transport systems. This chapter of the CAP builds on that Roadmap, adding more detail to the city’s emissions breakdown and more actions that can facilitate the transition to a low-carbon city. The actions and objectives in this chapter were informed by a Tier 3 Baseline Emission Inventory for the City that was completed by the Southeast Energy Agency and can be found in Appendix D. The baseline is based on data from 2018 and is a snapshot of the emissions in the city in that year.

The Decarbonisation Zone is highlighted in figure 17. This area is home to 48,216 inhabitants (Based on a 2018 baseline), many public sector bodies and 2060 business properties. In total, 289 ktCO₂eq of carbon emissions arise from activities in the city each year, these emissions are predominantly from fuel burnt for transport, electricity and heat.

Waterford City is the largest urban centre in the South-east region and the country’s fifth largest city. The distribution of population within Waterford City is heavily weighted to the City Centre, the southern inner suburb, the southeast and the northern side of the city.



Figure 17. A map of the Decarbonising Zone in Waterford City

Employment centres such as the IDA Business Park, Waterford University Hospital and SETU are locations of high employment in Waterford. There are also several light industrial parks and out-of-town retail outlets such as Waterford Retail Park, Kingsmeadow Retail Park and Knockhouse Business Centre.

The biggest source of emissions in the city is from Transport, the second largest area is emissions arising from heat and electricity use in the Commercial Sector and third highest emissions arise from the Residential Sector, how we heat and power our homes.

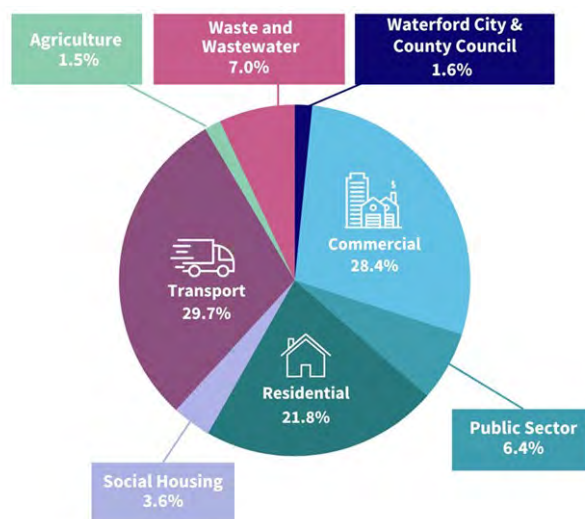


Figure 18. Emissions breakdown in the Decarbonising Zone

¹ <https://waterford2040.com/>

² <https://www.waterfordcouncil.ie/media/environment/Carbon%20Neutral%20Waterford%20-%20Roadmap%202040%20WEB.PDF>

The emissions that WCCC produce are directly responsible for 1.6% of carbon emissions while the Social Housing that WCCC builds and rents accounts for 3.6% of the city's emissions. A breakdown of the Council's emissions from the 38 buildings operated in the city, streetlighting and fleet impact can be seen below in MWh and in tCO₂eq.

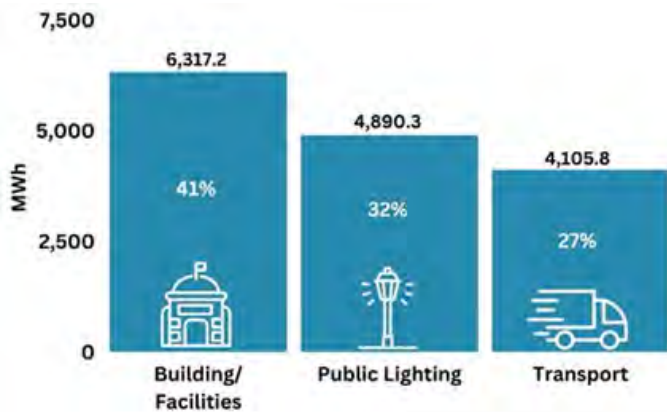


Figure 19. WCCC energy use in MWh in the city

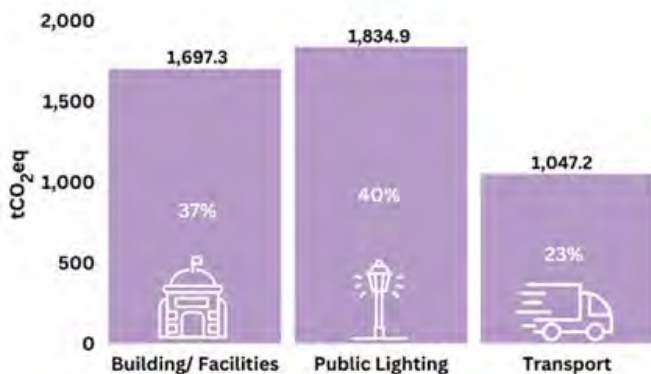


Figure 20. WCCC emissions in the city

5.2 The Vision for Waterford City Decarbonisation Zone

Waterford City will be Ireland's first low-carbon city, providing both residents and businesses with sustainable, innovative solutions when it comes to energy efficiency, renewable energy, transport and the effective use of resources to eliminate waste. While reducing emissions, Waterford City will also adapt to a changing climate using nature-based solutions that increase green space and promote biodiversity in the city.



5.3 The Register of Opportunities

A portfolio and pipeline of interventions, projects and actions have been curated through responses that include mitigation, adaptation and biodiversity measures. These will deliver on targets set for energy and emission reductions.

This portfolio is known as the Register of Opportunities. Although costings for many of the actions identified in 5.4 are not available yet, and further project details will be developed (e.g., a District Heating System for Waterford City), what will be achieved through the Decarbonising Zone is identified in Table 3.

It should be noted that the actions listed within the Local Authority Climate Action Plan adhere to a timeframe approach. The actions adhere to the following timeframes:

Short-term – within one year Medium-term – before 2027 Long-term – before 2029

Sector	2018 BEI (ktCO ₂ eq)	2030 Reduction target (kt CO ₂ eq)	2030 Reduction target from National Targets (% of 2018 BEI)	Projected Reduction 2030 (kt CO ₂ eq)	Projected Reduction 2030 (% of 2018 BEI)	Actions including assumptions
Commercial and industrial	82.1	-36	45% for commercial	-24.6	30%	This reduction is based on an increase in energy efficiency of 30% by retrofitting commercial buildings and increasing renewable energy.
Transport	86	-43	50%	-43	50%	This reduction is based on achieving a target of 50% electric vehicles (14,000 approx.) as well as a 10% decrease in carbon emissions due to increased Active Travel. 4% increase in carpooling.
Residential	63.1	-25	40%	-25	40%	Based on 100% of residential buildings with a D2 BER rating or worse (7,00 approx.) retrofitting to a B3 BER.
Waste	20.3	-10	50%	-10	50%	Based on decreasing black bin waste by 50% in each household by encouraging recycling and composting.
Waterford City & County Council	4.6	-2.33	51%	-2.4	52%	Reduction based on an energy reduction of 55% in energy from lighting upgrades, 40% emissions saving from phased replacement of vehicles with electric vans or biofuel, a 40% improvement in building efficiency and 1000MWh of our electricity provided by renewables onsite.
Social Housing	10.5	-5.3	51%	-4.99	48%	Upgrade of 183 homes from BER G rating to B, upgrade of 863 homes from E rating to B and upgrade of 154 homes from D rating to B. Saving residents an average of €1,500 annually. ¹

Table 3: Emissions targets for different sectors in Waterford City.

¹ <https://www.seai.ie/publications/Your-Guide-to-Building-Energy-Rating.pdf>

5.4 Actions

Priority area 1: Collaboration across bodies working within the city.

WCCC directly controls 1.6% of emissions in Waterford City through its operations. In Transport and Social Housing, the Council has a large influence on a further 33% of the city's emissions and projects can be put in place with the agreement of the public to reduce this figure. Emissions relating to the Public Sector (6.5%) will have the same emission reduction targets as WCCC. Finally, the remaining 65% of emissions within the city are in the Residential, Waste and Commercial sectors, areas where the Council's influence is limited but where there is a desire to reduce emissions. As all of these groups will be working towards a similar goal; in the case of homeowners to save money, in the case of businesses to build a sustainable reputation and in the case of public sector bodies to reach the government target, it makes sense to work together to achieve more. Collaboration with Kilkenny County Council will also be required to ensure citizens living in border areas receive the full benefits of low carbon living.

Objective: To create a neighbourhood approach to Climate Action where all members of the community are playing a role in partnership with WCCC in identifying opportunities for reducing carbon and improving health, in trialling new climate solutions and in promoting Climate Action in their community/organisation.

Action #	Action Description	Action Type	KPI	Dept. Lead	Time-frame	Depend.	Partners	DECA Goal
DZ 1.1	Facilitate a number of city groups to encourage collaboration on meeting the City's Decarbonisation goals - Centre of Excellence: these will include large employers, the Chambers, SETU, Retailers	Combined	Number of groups and their active involvement in Climate Action programmes	Climate Action	Short	Resources, External stakeholders	Economic Development	1,5
DZ 1.2	Coordinate Climate Action with Kilkenny County Council in relation to Ferrybank	Combined	# project collaborations	Climate Action	Short	Cross-boundary council collaboration, external stakeholder engagement	Kilkenny County Council	1
DZ 1.3	Develop a Carbon Neutral Community programme where we establish an energy cooperative in a pilot community and deliver renewable energy and energy efficiency solutions for homes and transport ^a	Migration	1 pilot community and distribution of lessons learned	Climate Action	Short	Resources, External stakeholders, cross-departmental collaboration	Southeast Energy Agency, Housing, Community, Active Travel	1,4
DZ 1.4	Work on an area by area basis (City Centre, Ballybricken, Carrickpherish, Poleberry, etc.) over a number of months to have a presence in the community to provide advice to the public and businesses while also delivering projects in Active Travel, Presentation, Roads, Climate Adaptation, Housing, etc. To provide information on existing services and to collaborate with the community going forward to develop projects and source financing/funding. Breaking the Decarbonisation Zone plan down to manageable community actions ^a	Combined	4 area action plans delivered and projects from those plans completed	Climate Action	Medium	Resources, External stakeholders engagement, cross-departmental collaboration	Roads, Community, Planning, Chambers, Southeast Energy Agency	1,4,5

^a having due regard to environmental sensitivities such as biodiversity, European Sites, built heritage, protected species, riparian environments, water quality, air quality, landscape and visual amenity, cultural heritage and sensitive human receptors.

Priority area 2: Climate Adaptation

A changing climate will result in increased flooding and heatwaves. Waterford City will take measures to reduce the impact of extreme weather.

Objective: To use Nature Based Solutions to reduce extreme weather impacts, improve air quality and provide amenity for citizens.

	Action Description	Action Type	KPI	Dept. Lead	Time-frame	Depend.	Partners	DECA Goal
DZ 2.1	Sustainable Urban Drainage Systems (SUDS) to be incorporated in street upgrades, Council building projects and private developments ^a	Adaptation	Number of new projects with SUDS	Climate Action	Medium	Training for all Council staff in 2024 on SUDS	Ecology/ Active Travel, Special Projects/ Roads/ Planning	1,3
DZ 2.2	Deliver a Rain Gardens project-provide the public with information on how to is done ^a	Adaptation	2 projects completed	Climate Action	Medium	Resources, external stakeholder engagement	Environment	1,3,4
DZ 2.3	Work with 4 regions in the city (e.g. Ballybricken, Carrickpherish) to co-design with the community climate adaptation interventions - planting, Sustainable Urbarn Drainage Systems, green roofs rainwater harvesting etc.	Adaptation	Delivery of community led Climate Adaptation projects in 4 city areas	Climate Action	Medium	Resources, external stakeholder engagement, cross-departmental collaboration Funding through Shared Island project	Communities	1,3,4
DZ 2.4	Increase tree-canopy cover to 20.9% uniformly across the city. A particular focus will be on areas of the city with limited tree coverage at present, areas that are likely to get uncomfortable warm due to the Urban Heat Island effect	Adaptation	Increase in tree canopy in city centre areas	Environ.	Long	Resources, cross-departmental collaboration		1,3
DZ 2.5	Work with the Presentation team to identify new methods of planting that take into account periods of drought - a particular focus on hanging baskets	Adaptation	New methods and materials used	Environ.	Short	Training, cross-departmental collaboration, resources	Climate Action	1,3
DZ 2.6	Put in place a park of regional significance as per County Development Plan incorporating Nature Based Solutions to reduce flood likelihood ^a	Adaptation	1. Feasibility study 2. Implementation	Planning	Long	External stakeholder engagement, resources, cross-departmental collaboration	Environment	1,3
DZ 2.7	Climate Adaptation measures to be incorporated into all Council developments going forward - larger downpipes, SUDS, Nature Based Solutions ^a	Adaptation	All projects to include Climate Adaptation considerations	Planning	Short	Training	Housing/ Special Projects/ Museums	1,3

DZ 2.8	Implementing permeable surfaces (bioswales / rainbeds / pervious pavement) - requirement in new developments ^a	Adaptation	# of developments with interventions	Planning	Short	Resources, training	Roads	1,3
DZ 2.9	Create a community competition for Parklets - areas that can be extended into a parking space that are planted or are rest areas	Adaptation	# of parklets	Commun.	Medium	Resources, training	Climate Action	1,3,4
DZ 2.10	Plant 100,000 native trees within the Metropolitan area	Adaptation	# trees planted, areas targeted	Environ.	Long	Resources	Climate Action	1,3
DZ 2.11	Carbon sequestration through detailed tree / meadow planting / growing, rewilding, soil management, waterways and wetland planning, informed by habitat mapping, opportunity mapping and tree canopy surveys. These actions shall be overseen by a competent ecology team, and shall have due regard to the need to appropriately manage these habitats	Adaptation	Increase in green space	Environ.	Medium	Resources, cross-departmental collaboration	Roads/ Planning	1,2,3
DZ 2.12	Reduce use of fertilizers by increased use of locally produced compost and local allotment growing	Adaptation	Areas where fertiliser has been phased out, uptake in local compost production	Environ.	Short	External stakeholder engagement, cross-departmental collaboration		2,4
DZ 2.13	Habitat mapping and biodiversity opportunity mapping to understand development opportunities and future habitat options for the open space network outlined in open and green space plans	Adaptation	Mapping developed, opportunities identified	Environ.	Short	Cross-departmental collaboration, resources	Planning - Ecology	1,3
DZ 2.14	Increase shade in public spaces (vegetation, retractable roofs, tensile structures, etc.)	Adaptation	Areas targeted	Planning	Medium	Resources	Environment	1,3

^a having due regard to environmental sensitivities such as biodiversity, European Sites, built heritage, protected species, riparian environments, water quality, air quality, landscape and visual amenity, cultural heritage and sensitive human receptors.

Priority area 3: Biodiversity

Objective: Increasing nature within the city will benefit citizens and will help the city to adapt to a changing climate.

	Action Description	Action Type	KPI	Dept. Lead	Time-frame	Depend.	Partners	DECA Goal
DZ 3.1	Develop a nature-corridor across the city-encouraging householders to use their gardens to facilitate wildlife	Adaptation	Number of Waterford households participating in nature programme	Climate Action	Medium	External Stakeholders engagement, resources, cross-departmental	Environment	1,3, 4
DZ 3.2	Incorporate practices as recommended by the National Pollinator Plan in city parks management	Adaptation	% projects incorporating principals	Environ.	Short	Training	Planning	1,3
DZ 3.3	Whips and Wildflower planting/management in Williamstown Golf Course	Adaptation	Area of planted area	Comm.	Short	Resources	Environment	3

Priority area 4: Energy

Energy use in WCCC, the Public Sector, Residential Sector, Social Housing and the Commercial Sectors account for 178ktCO₂eq, 61% of emissions in the city. Most homes in Waterford (71%) have BER ratings of D - E, costing those homeowners 2 to 4 times as much in energy costs compared to their neighbours with a B rating or higher.

Improving energy efficiency in public and private buildings, while producing local renewable energy would reduce energy costs across the city, provide comfort and reduce the impacts of energy poverty.

Objective: To improve energy efficiency in Council and in private buildings and to maximise the renewable energy generation opportunities in the city.

	Action Description	Action Type	KPI	Dept. Lead	Time-frame	Depend.	Partners	DECA Goal
DZ 4.1	Complete a drone study of all suitable roof space for solar PV	Mitigation	Study completed	Climate Action	Short	Resources	SETU	1
DZ 4.2	Deliver a 50% energy efficiency improvement in Council owned buildings in the City ^a	Mitigation	Energy efficiency upgrades completed	Climate Action	Long	Resources	SEAI	1,2
DZ 4.3	Equip existing Council buildings with a building automation and control system before 31 December 2024 where the effective rated output for heating, ventilation and air-conditioning systems is over a threshold of 290kW	Mitigation	Review of buildings done and works completed	Climate Action	Medium	Resources, training	Property Management	1,2
DZ 4.4	Work with partners to deliver a District Heating Scheme for Waterford City ^a	Mitigation	System spine in place	Climate Action	Long	External stakeholder engagement, resources, cross-departmental collaboration	Roads	1,2,3,6

DZ 4.5	Ensure any new developments along any future District Heating route are District Heating compatible at the planning stage	Mitigation	Publish specification for developers and include in planning conditions	Planning	Long	External stakeholder engagement, resources	Climate Action	1,2,3,6
DZ 4.6	Upgrade of public buildings to BER B ^a	Mitigation	# public buildings	Climate Action	Long	Resources	All departments	1,2,3
DZ 4.7	Do a review of Council owned land in the city for solar suitability. Ensure such a review has appropriate regard to planning and environmental considerations. Develop solar energy projects - ensuring such projects promote climate action co-benefits and do not contravene relevant environmental protection criteria or cause significant negative environmental effects. Study to be done in conjunction with SETU	Mitigation	Report completed and MWh of installed solar pv - car ports, buildings and solar farm	Property Management	Short	Resources Estimated cost of €6,000		1,3,4
DZ 4.8	Deploy solar energy on all Council buildings with a floor area of greater than 250m ²	Mitigation	m ² of solar	Climate Action	Medium	Resources, cross-departmental collaboration	All departments	1,2,3
DZ 4.9	Replace inefficient streetlights with LEDs, while having due regard for the impact the spectrum of light used will have on protected nocturnal species such as bats	Mitigation	# lights replaced	Climate Action	Short	Resources Ongoing through PLEEP		1,2,3
DZ 4.10	Development of a Smart City District on O Connell Street and the Quays (centralised at the Munster Express Building) that will use sensors to maximise energy production, efficient energy use, report risk of drain flooding and communicate air quality impacts ^a	Combined	# sensors installed, energy saved	Special Projects	Medium	Resources, cross-departmental collaboration 500k to be sourced from EU funding	Climate Action	1,2,3,4
DZ 4.11	All new homes are constructed to a BER rating standard of A2 - A3	Mitigation	# homes targeted	Housing	Short	Resources, cross-departmental collaboration		1,3
DZ 4.12	Through the Croi Conaithe scheme bring existing buildings up to a high energy efficient standard ensuring occupancy rates are high in our city centre ^a	Mitigation	# buildings upgraded	Housing	Medium	Resources, external stakeholder engagement		1,3,6
DZ 4.13	Removal of fossil fuel heating from all Council buildings, having due regard to environmental sensitivities such as protected species associated with such buildings, European sites, biodiversity, and the need to appropriately conserve built and cultural heritage	Mitigation	CO ₂ emissions saved	Climate Action	Short	Resources	Property Management	1,2
DZ 4.14	In conjunction with the Local Enterprise Office compile a strategy for developing the Geothermal Industry in Waterford City Along with conducting a feasibility study for the city based on GSI recommendations ^b	Mitigation	Strategy developed, feasibility study completed	Climate Action	Long	Cross-departmental collaboration	LEO	1,5

DZ 4.15	Investigate the potential for and funding sources to develop our approach to affordable net zero energy retrofits by city district e.g. Ballybricken, Ardkeen, Carrickpherish	Mitigation	Report produced for relevant areas	Climate Action	Medium	Cross-departmental collaboration, resources, external stakeholder engagement	Housing	1,3,6
DZ 4.16	Update Renewable Energy Strategy, within City and County Development Plan. Ensure planning and environmental protection related factors are appropriately considered in the strategy	Mitigation	Strategy updated	Climate Action	Short	Cross-departmental collaboration	Planning	1
DZ 4.17	Continue to support the general public on fuel poverty abatement schemes and assist in accessing such funded schemes such as the “Warmer Homes Scheme”	Mitigation	Actions implemented, # households targeted	Climate Action	Short	Cross-departmental collaboration, external stakeholder engagement, resources	Libraries	1,6
DZ 4.18	North Quays to be an exemplar example of sustainable energy technologies; having due regard planning and environmental considerations	Mitigation	Technologies deployed, CO ₂ emissions saved	Special Projects	Medium	External stakeholder engagement, resources, cross-departmental collaboration		1,2,3
DZ 4.19	Develop a “Hydrogen Energy Strategy” for Waterford City and resource implementation of aspects of the National Strategy that can be advanced in Waterford. Ensure planning and environmental protection related factors are appropriately considered in the strategy	Mitigation	Strategy developed	Climate Action	Long	External stakeholder engagement		1,2,3
DZ 4.20	Exploit Waterford’s Shallow Geothermal opportunities by including Geothermal as a heat source for a District Heating and by including Geothermal heating where suitable in Council redevelopment projects. Progress development supported by this action in a manner that maximizes climate action co-benefits and accords with relevant environmental protection requirements	Mitigation	Geothermal project undertaken and implemented	Climate Action	Long	External stakeholder engagement, cross-departmental collaboration	Special Projects/ Housing	1,2,3,6
DZ 4.21	Develop Solar Car port projects (1MW) and a solar farm within the city (19MW); having due regard to environmental sensitivities such as landscape and visual amenity, European Sites, biodiversity, sensitive human receptors and the need appropriately conserve built and cultural heritage	Mitigation	Renewable energy generated	Climate Action	Medium	Resources, external stakeholder engagement	Roads	1,3,4
DZ 4.22	Investigate the requirements for large scale installation of low carbon sources of heating (air/ground/water source heat pumps), using council owned homes as a test bed in partnership with grid operators and supply chains	Mitigation	# homes targeted, technology implemented	Housing	Medium	Resources, cross-departmental collaboration, external stakeholder engagement	Climate Action	1,2,3, 5,6

Priority area 5: Environmental Awareness

Decarbonising Waterford City is an endeavour that will require an all-of-society approach. It is essential that citizens are aware of what they can do and are recognized for their efforts.

Objective: To give all citizens of Waterford the opportunity to play their part in, and to benefit from, the transition to a low-carbon, sustainable city.

	Action Description	Action Type	KPI	Dept. Lead	Time-frame	Depend.	Partners	DECA Goal
DZ 5.1	Through the libraries and Family Resource Centres run an Energy Poverty campaign informing households of their options for home upgrades	Mitigation	# of applicants to the Warmer Homes Scheme	Libraries / Community	Short	Resources	Climate Action	1,4,6
DZ 5.2	Host monthly Climate Cafes in different parts of the city where the community can get advice on sustainability in their areas	Combined	# of cafes participating, areas targeted	Climate Action	Short	Resources, cross-departmental collaboration	Communications / Communities	1,4,6
DZ 5.3	Hold an annual schools Climate Conference for City Secondary Schools	Combined	# schools engaged	Climate Action	Short	Cross-departmental collaboration		1,4
DZ 5.4	Develop a Carbon Neutral Waterford brand that can be used for signage for any emissions reducing projects. Signage would use QR codes to connect to an online record of projects in the public, community and private sector	Combined	Areas targeted, projects recorded	Climate Action	Short	Resources, external stakeholder engagement	Communications	1,4
DZ 5.5	Focussed road safety campaign particularly focussed on parking of footpaths and cycle lanes near schools	Mitigation	Campaign implemented	Roads/ Parking	Short	Resources	Active Travel	1,4,6
DZ 5.6	Work with Waterford Walls and other arts campaigns to use art to facilitate Climate Action	Combined	Projects implemented	Climate Action	Short	External stakeholder engagement	Culture	3,4,5
DZ 5.7	Create and deliver the Commerce for a Carbon Neutral Waterford scheme where businesses can play their part in reducing emissions in Waterford City	Mitigation	# businesses engaged, potential emissions saved	Climate Action	Short	External stakeholder engagement, cross-departmental collaboration	Economic Development	1,5
DZ 5.8	Continue to engage with businesses encouraging them to save energy with the Commercial Energy Rates Discount Scheme - whilst promoting the need for supported projects to adhere to relevant planning and environmental protection requirements	Mitigation	# businesses signed up	Climate Action	Short	External stakeholder engagement, cross-departmental collaboration	Finance	1,5
DZ 5.9	Reward scheme for pro environmental behaviours - Gamify action in conjunction with Waterford businesses/ museums/	Mitigation	Reward scheme incentivisation	Climate Action	Medium	External stakeholder engagement, cross-departmental collaboration	Economic Development / SETU	1,2,4

Priority area 6: Financing

Objective: To learn from other cities and put in place innovative funding mechanisms to take advantage of renewable energy and housing energy upgrades.

	Action Description	Action Type	KPI	Dept. Lead	Time-frame	Depend.	Partners	DECA Goal
DZ 6.1	Investigate the possibility of creating a Green Bond for the city which can be used to invest in appropriately planned renewable energy	Combined	Bond developed, bond update	Climate Action	Medium	External stakeholders engagement, cross-departmental collaboration	Finance	1,4,5
DZ 6.2	Whole life cycle costing of energy in Council redevelopment or building projects	Combined	LCC implemented and # of projects engaged in LCC	Housing/Special Projects	Medium	Resources, cross-departmental collaboration	Planning	1,3

Priority area 7: Housing

There are 3,482 social housing units in the Decarbonisation Zone, almost 2,500 units were built before 2000 and may need energy efficiency upgrades. This work has commenced and upgrades will continue, funding allowing, until 2029 and beyond.

Objective: To improve the energy efficiency of older houses in WCCC's social housing stock.

	Action Description	Action Type	KPI	Dept. Lead	Time-frame	Depend.	Partners	DECA Goal
DZ 7.1	Complete a study of BERs across all social housing	Mitigation	Study completed, social housing BERs accounted for	Housing	Short	Resources, cross-departmental collaboration		1,6
DZ 7.2	Education campaign for how energy efficient properties operate- videos and guides	Mitigation	Campaign implemented	Climate Action	Medium	Cross-departmental collaboration, external stakeholders engagement	Housing	4,5
DZ 7.3	Develop financial instruments that will allow for the acceleration of social housing retrofits resulting in the upgrade of 1,200 homes (55% of the estimated homes below a BER of c) in the city to BER B or higher	Mitigation	Instrument developed, retrofits undertaken	Climate Action	Medium	Cross-departmental collaboration, resources	Housing/Finance	1,2,3
DZ 7.4	Whole life cycle costing of energy in Council redevelopment or building projects	Mitigation	Pilot neighbourhood identified, actions implemented	Climate Action	Medium	Cross-departmental collaboration, resources, external stakeholders engagement	Communities Active Travel	1,2,3,4

Priority area 8: Planning

Objective: To ensure that all developments in the city are designed to adapt to Climate Change while also contributing to a low carbon and sustainable lifestyle for citizens.

	Action Description	Action Type	KPI	Dept. Lead	Time-frame	Depend.	Partners	DECA Goal
DZ 8.1	15% of the area of all new sites being set aside for nature- planning condition	Adaptation	% target reached	Planning	Short	Resources, cross-departmental collaborallation		1,3
DZ 8.2	Integration of renewable energy, EV charging active travel infrastructure into new developments	Mitigation	New developments targeted	Housing/ Planning	Short	Cross-departmental collaborallation, external stakeholders engagement		1,2,3,6
DZ 8.3	In URDF projects, faciliate a city centre cooperative community with a collective skill set that can tackle renovation projects from within its own resources. This work should have a focus on Circular Economy, making tools and skills available for people to do up properties taht they can live in- whilst promoting the need for supported projects to adhere to relevant planning and environmental protection requirments	Mitigation	City centre co-op established	Special Prpjects	Medium	Cross-departmental collaborallation, resources	Planning	1,4,5
DZ 8.4	Incorporate water conservation in all new developments	Adaptation	Litres of water conserved	Planning	Short	Training	Special Projects/ Housing	
DZ 8.5	Work with communities to incorporate rainwater harvesting into projects	Adaptation	Litres of water conserved and reused	Communit.	Medium	Cross-departmental collaborallation, resources, external stakeholders engagement	Planning	

Priority area 9: Waste

7% of Waterford City's emissions come from Waste and Wastewater. Only 18% of household waste is recycled and 4% of commercial. These are resources that could be reused or recycled, extending the life cycle of the material, and ensuring that virgin materials do not have to be used.

Objective: Waterford City will be a place where materials can be borrowed, repaired, reused and recycled, where the economy will be circular.

	Action Description	Action Type	KPI	Dept. Lead	Time-frame	Depend.	Partners	DECA Goal
DZ 9.1	Put in place a bike library for citizens to trial bikes	Mitigation	Libraries implemented	Active Travel	Short	Resources, external stakeholder engagement	Climate Action	1,6
DZ 9.2	Set up a Zero Waste Waterford Campaign to coincide with the changing Waste Management Law. The campaign will work with businesses to reduce paper waste, single use plastics, disposable cup waste etc.	Mitigation	Number of businesses eliminating waste from their operations	Environ.	Medium	Cross-departmental collaboration, resources	Climate Action	1,5
DZ 9.3	Borrowboxes for sport equipment	Mitigation	Borrowboxes installed	Healthy Waterford	Short	Resources		6
DZ 9.4	Investigate the possibility of creating a Repair Hub in the city centre	Mitigation	Feasibility study	Climate Action	Medium	Resources, cross-departmental collaboration	LEO/Environment	1,5
DZ 9.5	Continue to facilitate the "Libraries of things" in city libraries	Mitigation	Expansion of initiative	Libraries	Short	Resources	Environment	1,6
DZ 9.6	Through the libraries host repair and swap events each year	Mitigation	Events hosted	Libraries	Short	Cross-departmental collaboration, external stakeholder engagement, resources	Environment	1,4,6
DZ 9.7	Use public spaces for repair pop ups across the year	Mitigation	Areas targeted	Climate Action	Medium	Cross-departmental collaboration, external stakeholder engagement	Environment	1,4,6

Priority area 10: Transport

Emissions arising from transport constitute the largest part of the city's emissions. Traffic in the city costs people their time and can impact health as particulates in the car exhaust worsen air pollution. 70% of peak morning trips in Waterford are made by citizens commuting from one part of the city to the next. The remaining 30% commute from outside the city boundaries. Nationally, one in four commuters have a travel time of 15 minutes or less. These journeys are often less than 5km in distance and have the potential to be wholly/partly made more sustainable by utilising **public transport or cycling routes**.

Objective: To be a healthy, active city with low air pollution that provides its citizens with multiple transport options, allowing people to get where they are going in a timely manner.

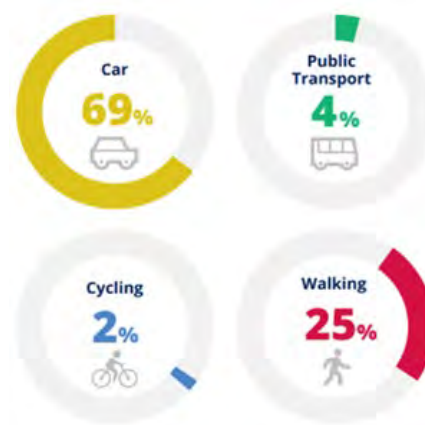


Figure 21. Modes of transport used for journeys within Waterford City (Source: Metropolitan Area Transport Strategy)

	Action Description	Action Type	KPI	Dept. Lead	Time-frame	Depend.	Partners	DECA Goal
DZ 10.1	Completion of the Sustainable Transport Bridge between Ferrybank and Waterford City	Mitigation	Bridge completed, bridge footfall	Special Projects	Long	External stakeholder engagement, cross-departmental collaboration, cross-county collaboration	Roads	1,3,6
DZ 10.2	Enable cyclist priority on traffic lights in the city that have that feature and incorporate that feature when traffic lights need to be replaced	Mitigation	# lights altered	Roads	Short	Cross-departmental collaboration		1,6
DZ 10.3	Install 33.9 Km of cycle lanes ^a	Mitigation	lanes installed	Active Travel	Long	Resources	Roads	3,6
DZ 10.4	Review public parking and staff parking to see the impact of car pooling, car sharing, public transport and active travel to identify areas where different usages could be applied for those spaces, having due regard to opportunities to promote climate action co-benefits, nature based solutions, SuDS, and relevant environmental protection requirements	Mitigation	Review undertaken	Roads/Parking	Short	Cross-departmental collaboration		1,3,6
DZ 10.5	Deliver a cycle parking initiative with large employers in the City	Mitigation	Initiative delivered	Active Travel	Short	External stakeholder engagement, cross-departmental collaboration	Economic development	5,6
DZ 10.6	Install 3 Km of upgraded footpaths along with maintaining existing footpaths ^a	Mitigation	Footpaths installed	Active Travel	Long	Resources	Roads	3,6
DZ 10.7	Work with the City's large employers on achieving the Smarter Travel Mark and participate in the Mark as a Council	Mitigation	Number of organisations achieving Gold, Silver and Bronze	Climate Action	Medium	External stakeholder engagement, cross-departmental collaboration	Economic development	1,5,6

DZ 10.8	Develop a Mobility As A Service platform in partnership with public transport operators and service providers of shared transport solutions such as car clubs and bike hire	Mitigation	Platform established	Roads	Long	External stakeholder collaboration, cross-departmental collaboration, resources	Climate Action	1,3,4,5,6
DZ 10.9	Work with postal and delivery companies to set up a "Last Mile Delivery" trial in Waterford	Mitigation	Trial ran, CO ₂ emissions saved	Climate Action	Medium	External stakeholder collaboration, cross-departmental collaboration, resources	Roads/ Economic Development	4,5,6
DZ 10.10	Maintain and promote the public bike scheme - liaise with the NTA on the extension of the scheme	Mitigation	Bike scheme expanded	Active Travel	Medium	External stakeholder collaboration	NTA	3,4,6
DZ 10.11	Install bike repair stands in busy cycling locations	Mitigation	Locations targeted	Active Travel	Medium	Resources		1,6
DZ 10.12	Increase the number of Council staff walking, cycling, taking public transport and car pooling in the city to 50%	Mitigation	% target reached	Climate Action	Medium	Cross-departmental collaboration, training and awareness raising	Roads/ Active Travel	1,2,6
DZ 10.13	Adjust Council staff parking policy to encourage staff to travel actively, use public transport, car pool and use pool bikes where possible	Mitigation	Policy adjusted, uptake in active travel monitored	Roads	Short	Cross-departmental collaboration	Climate Action	1,2,6
DZ 10.14	Complete an EV charging strategy and apply for the Neighbourhood Charging Fund for the required number of chargers and ensure that all new plannings for developments include the legally mandated EV charger requirement ^a	Mitigation	Strategy completed, chargers installed	Climate Action	Short	External stakeholder engagement, cross-departmental collaboration	Roads	1,2,4
DZ 10.15	Deliver at least 5 Safe Routes to Schools campaigns at City Schools - this will depend on school demand ^a	Mitigation	Routes delivered	Active Travel	Long			4,6
DZ 10.16	Air pollution monitoring programme at City Schools with education programme	Mitigation	Programme delivered, data on air quality published	Active Travel	Medium	Environment	Resources	4
DZ 10.17	Review of bus lanes in the city and extension as part of the Bus Connects programme, having due regard to transport planning related factors	Mitigation	Number of bus lanes operational across the day	Active Travel	Medium	Roads	External stakeholder engagement	1,6
DZ 10.18	Deliver a car pooling app for the City and a campaign to encourage individuals to car pool - this will be done in conjunction with the large employers in the city	Mitigation	Staff surveys as part of the Smarter Travel Programme	Climate Action	Medium	Roads	Cross-departmental collaboration, resources, external stakeholder engagement	1,4,5,6
DZ 10.19	Car pool parking to be identified and marked out within car parks - citizens who car pool will have access to the best car park spaces and parking attendants will be able to verify car pooling	Mitigation	Spaces altered, # of spaces utilised weekly	Climate Action	Medium	Roads/Parking	Cross-departmental collaboration, resources	1,4,6
DZ 10.20	Review of parking policy to reflect the benefit of people car pooling	Mitigation	Policy adjusted, uptake in active travel monitored	Climate Action	Medium	Roads/Parking	Cross-departmental collaboration, external stakeholder engagement	1,6

DZ 10.21	Zero emissions vehicles will be used in for Council work in the City	Mitigation	# of vehicles in use, emissions saved	Short	Climate Action	Resources	Depots	1,2
DZ 10.22	Reduce speed limit to 30kmph in the Metropolitan Area as specified in the Metropolitan Area Transport Strategy	Mitigation	Areas targeted, traffic levels monitored	Short	Roads	Political agreement	Active Travel	1
DZ 10.23	Investigate Low Emission Zones in the City Centre and Demand Management	Mitigation	Zone established, associated metrics published	Medium	Climate Action	Political agreement	Roads	1
DZ 10.24	Run an anti-idling campaign at all primary schools in the city, educating the public on how bad air quality is for children	Mitigation	Campaign launched, reach monitored	Short	Active Travel	Cross-departmental collaboration	Roads/ Parking	1,4,6
DZ 10.25	Put in place transport hubs where citizens can rent a bike, car or scooter ^a	Mitigation	20 hubs - each car that can be borrowed can eliminate the need for 18 private cars	Medium	Roads/ Parking	Resources, external stakeholder collaboration		1,6
DZ 10.26	Promotion of Playful City Guidance amongst communities that apply for funding for community events. Streets closed off to encourage cycling and walking to be considered as part of the funding requirement for small community festivals	Combined	3 Community Festivals a year	Short	Climate Action	External stakeholder engagement, cross-departmental collaboration	Roads/ Healthy Waterford	1,4,6
DZ 10.27	City Centre involvement in European Car Free Day and Clean Air Day (Certain streets closed to traffic and events)	Mitigation	# of drivers engaged in initiative, improvement in air quality as a result	Short	Roads	Cross-departmental collaboration, external stakeholder engagement	Climate Action	1,4,6
DZ 10.28	Delivery of Park and Ride ^a	Mitigation	CO ₂ savings, uptake in service	Long	Roads	1. Land agreement 2. Build Park and Ride 3. Extension of bus service and City Bikes	Kilkenny County Council	1,6
DZ 10.29	Restriction of traffic of a certain axle through the city - extension of 5 axle ban to anything above 4 axles	Mitigation	Ban implemented, benefits demonstrated e.g. air quality, traffic flow	Medium	Roads	External stakeholder engagement		1
DZ 10.30	Continue to work with the NTA to provide infrastructure for the bus network - the city bus network will be electrified and extended within this period with input from the Council	Mitigation	Buses electrified, benefits demonstrated	Medium	Roads	External stakeholder engagement		1,3,4,6
DZ 10.31	Facilitate a bike delivery trial in the city	Mitigation	Trial ran, CO ₂ emissions saved	Medium	Active Travel	Cross-departmental collaboration, resources	Climate Action	1,5,6

^a having due regard to environmental sensitivities such as biodiversity, European Sites, built heritage, protected species, riparian environments, water quality, air quality, landscape and visual amenity, cultural heritage and sensitive human receptors.

^e having appropriate regard to environmental sensitivities such as traffic and transport constraints and aspects.

^h Ensure planning and environmental constraints are considered during this assessment.

ⁱ promote - through control or influence as appropriate - the carrying out of development supported by this action in a manner that has due regard to opportunities to promote nature-based solutions and Sustainable Drainage Systems, and environmental sensitivities at these locations, including water quality, biodiversity, European sites, riparian corridors and aquatic ecology, visual amenity and recreation and amenity value.

^l ensuring local authority led development is carried out in a manner that has due regard to relevant planning and environmental protection requirements.



6. Implementation and Reporting

6.1 Planning for implementation

This Draft Climate Action Plan will be implemented by Waterford City & County Council. Whilst the plan requires a whole-of-Council approach, the ownership of the Draft Plan is held within the Environment Directorate.

A Climate Action Team was established in Waterford City & County Council in 2022. This team includes a Climate Action Coordinator, an Energy Engineer, Graduate Climate Officer, Climate Action Officer and Community Climate Action Officer. The role of this team is to mainstream climate action into the activities of Waterford City & County Council, deliver emission reducing projects, monitor the implementation of the actions of the Climate Action Plan and to coordinate the reporting and evaluation of the Plan, following its approval by the Elected Members. The core Climate Action Team is supported by the wider teams, departments and committees across the organisation, that have ownership of particular actions in the Plan. These include the following Departments/Sections – Environment, Planning, Roads, Communities, Festivals, Libraries, HR, Corporate Services, Active Transport, IS, Heritage & Conservation, Biodiversity, Water, Economic Development, Festivals, Culture. The core Climate Action Team will also be the point of contact for the public to learn about climate action in the County.

Waterford City & County Council will work collaboratively and in partnership with a range of key stakeholders to support the delivery of this Plan. These stakeholders include but are not limited to the following – the neighbouring local authorities of the Eastern and Midlands Climate Action Regional Office, the South East Energy Agency, the Local Authority Services National Training Group, Eastern and Midlands Regional Assembly, Local Government Management Agency, City and County Management Agency, Age Friendly Ireland, ACT Waterford and the Waterford Public Participation Network. These partnerships can provide opportunities for collaboration on projects, shared learnings, technical support and leveraging of funding opportunities during the implementation of actions in the Draft Plan.

It is also clear that climate change is a transboundary challenge; it does not stop at political and geographical borders. As such, a regional approach will be supported by the local authorities in the south-east sub region (Kilkenny, Carlow, Tipperary, Waterford and Wexford) whereby they can collaborate closely on the implementation of the CAPs.

Following approval of the Plan, an Implementation Plan will be developed for each action, which will set out in detail how the action will be delivered including, noting the responsible department and timescales. Waterford City & County Council will align the timing of internal implementation reporting intervals with that of sectoral progress reporting requirements.

6.2 Funding and Partnerships

To lead by example and drive the transition to a climate neutral society, Waterford City & County Council will need access to adequate funding for climate action projects towards achieving its 2030 and 2050 targets. Local authorities can access various types of funding such as government grants, European funds, private sector investment and community co-financing.

It is recognised that while new climate action targeted funding calls may become available in the future, already established funding bodies will introduce or increase the level of funding streams to climate action focused categories. Waterford City & County Council will continue to actively pursue new and existing funding opportunities from both European and National bodies that are aligned with its climate action objectives.

The Climate Action Regional Office (CARO) has developed an inventory of funding sources across the public and private sector for use by local authorities and community groups. The funding streams are grouped into the following categories:

- Project Research Funding
- Project Development Funding
- Project Capital Funding
- Community Gain, Philanthropic and Corporate Funding Source
- Funding Services and Databases
- Just Transition Funding

Community Climate Action Fund

On February 3rd, 2023, the Minister of the Environment, Climate and Communications, launched the Climate Action Fund Strand 1 - Building Low Carbon Communities. This is a fund of €24 million for local authorities across the country, to support and build low carbon communities. This funding is part of the Community Climate Action Programme, which supports projects and initiatives that facilitate community climate action through education, capacity building and learning by doing. Waterford City & County Council has been allocated €564,000 through this fund, and

applications for community projects eligible for funding may be made under the following five themes:

- Home/energy
- Travel
- Food and waste
- Shopping and recycling
- Local climate and environmental action.

The Council will manage the implementation of this fund on behalf of the Department of the Environment, Climate and Communications. Other Climate Action Projects that have received funding recently in Waterford are listed below:

ACT Waterford

ACT Waterford is a project funded by Creative Ireland designed to encourage action on climate change in Waterford, in which Waterford City & County Council worked together with South East Technological University (SETU) funded by the Creative Ireland Climate Action Fund. Through ACT Waterford, five communities so far have explored climate solutions and communicated their actions through collaboration with scientists and artists. Projects undertaken to date under the ACT Waterford project to date have placed an emphasis on:

- Consumption and recycling
- Greening the city
- Suburban transport
- Biodiversity
- Energy use and efficiency

The Greenhouse

Another Creative Ireland project, the Greenhouse at the Theatre Royal is a site-responsive, interactive theatre event which will promenade through the iconic Theatre Royal building in Waterford to explore ways to reduce the theatre's carbon footprint.

Partnerships are also a key ingredient towards realising low carbon solutions. The private sector is already playing a role towards achieving the National Climate Objective.

Collaboration between the public and private sectors can enhance the capabilities of achieving reductions in Ireland's greenhouse gas emissions by 51% by 2030 and becoming climate neutral by no later than 2050. Waterford City and County Council will look to expand upon existing private sector relationships and develop new ones to ensure climate objectives are met.

There are also benefits for the local government sector in partnering with the third level education sector. This can provide research and development expertise to help local authorities implement innovative solutions to reduce greenhouse gas emissions and adapt to climate change. Waterford City and County Council already has an established partnership with the Southeast Technological University (SETU) and will continue to build on this in its efforts to effectuate climate action across the city and county. Partnering with SETU will also allow the Council access to additional funding streams through national and EU programmes.

6.3 Tracking Progress through Key Performance Indicators

Performance by Waterford City & County Council on the delivery of energy efficiency and emission reductions relating to the Council's infrastructure and assets, as prescribed by national climate obligations, will continue to be tracked through the established Monitoring and Reporting (M&R) system managed by the Sustainable Authority of Ireland (SEAI).

For actions outside of this, one of the reporting avenues that Waterford City & County Council engages with to communicate progress on the delivery of actions is through Sectoral Key Performance Indicators (KPIs). This informs the performance of the local government sector on climate action.

Strengthened climate action policy at national level inspired a determined response and commitment by local government, as a sector. This commitment is set out in the County and City Management Association (CCMA) published strategy on behalf of local government entitled *Delivering Effective Climate Action 2030*¹ (DECA 2021).



Figure 22. Interactive arts project in Ballybricken

¹ Published 14th April 2021: County and City Management Association [CCMA] (2021): *Delivering Effective Climate Action 2030: Local authority sector strategy for delivering on the Climate Action Charter and Climate Action Plan*. Dublin: Local Government Management Agency [LGMA]. Available online at: [delivering-effective-climate-action-2030.pdf](https://www.lgma.ie/delivering-effective-climate-action-2030.pdf) (lgma.ie)

A key consideration for the local government sector on this strengthened role on climate action is accountability, and in particular the ability to track, measure and report on progress in delivering effective climate action at both local authority and sectoral levels. In this regard, KPIs will continue to play a significant role.

The Climate Action Regional Offices (CARO) along with the Local Government Management Agency (LGMA) collect data on an annual basis relating to a range of themes including:

- Climate action resources
- Climate action training for local authority staff and elected members
- Actions delivered
- Enterprise support in area of climate action
- Energy efficiency
- Emission reductions
- Active travel measures
- Severe weather response

KPIs will continue to be added as necessary by the sector and Waterford City & County Council will contribute relevant information as required, to assist in highlighting the progress of the local government sector on climate action.

6.4 Reporting Requirements and Arrangements



Figure 23. Reporting mechanisms on progress in the Climate Action Plan

6.4.1 Internal Reporting

Following approval of the Draft CAP, an Implementation Plan will be developed for each Action, which will set out in detail how the Action will be delivered by the Lead Department. The Climate Action Team will align the timing of internal implementation reporting intervals with that of sectoral progress reporting requirements in line with further guidance from CARO on monitoring and reporting.

To ensure that delivery is timely, the implementation of the Draft Plan will be monitored via an in-house tracking system. The local authority will also facilitate reporting to elected members on bi-annually through the SPC and wider Council.

6.4.2 SEAI Monitoring and Reporting System (M&R)

The Council's own performance for delivery of energy efficiency and emission reductions relating to Council's infrastructure and assets, is tracked through the established Monitoring and Reporting (M&R) system managed by the Sustainable Authority of Ireland (SEAI).

6.4.3 Sectoral Performance

Waterford City & County Council will report annually on their performance on climate action by way of KPIs (as outlined in Section 6.2) to inform the performance of the local government sector on climate action, as part of the local government DECA 2030 Strategy.

6.4.4 National Climate Action Plan

Waterford City & County Council will in accordance with part 3(w) of the Local Authority Climate Action Charter, report annually to the Department of the Environment, Climate and Environment on progress on climate action at local level as part of the delivery of the national climate objective. Progress on all actions will be reported via a reporting tool developed by CARO.

6.4.5 Covenant of Mayors

Waterford City & County Council been a signatory to the Covenant of Mayors (CoM) for Climate and Energy since 2019. As such, the Council commits to the completion and monitoring of a Sustainable Energy and Climate Action Plan (SECAP).

This draft CAP now reflects and supports the requirements of the CoM SECAP and monitoring carried out as part of the CAP will be issued to the CoM in as part of required monitoring reports.

6.4.6 Sustainable Development Goals

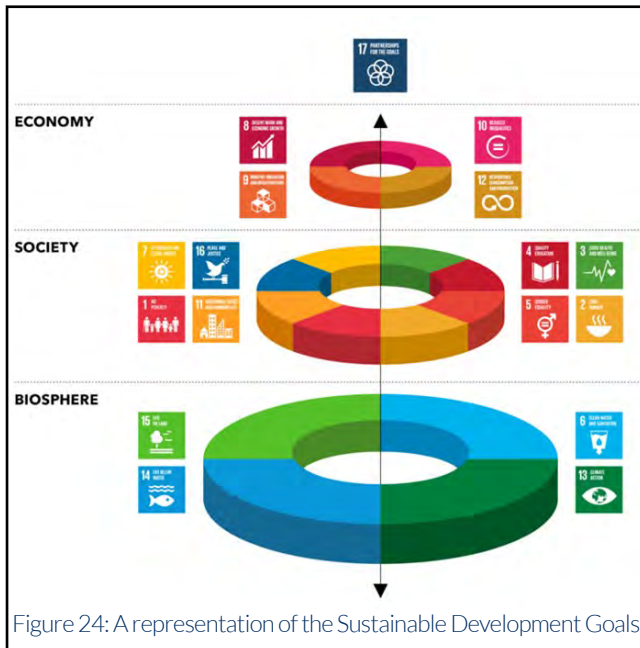


Figure 24: A representation of the Sustainable Development Goals

The 2018-2020 Sustainable Development Goals (SDGs) National Implementation Plan acknowledged that local government “has a crucial role to play in translating national policies into tangible practical actions that can help to concretise the SDG objectives into our individual and communities’ behaviours and goals.” Ireland’s Second National Implementation Plan for the Sustainable Development Goals 2022-2024, intends to build on the role of local government in Ireland and incorporates specific actions to do so which include:

- Showcasing, sharing and building on existing initiatives
- Capacity building and awareness raising
- Embedding the SDGs in Governance and reporting frameworks
- Incorporating the SDGs within local planning frameworks
- Community Engagement

Furthermore, local authorities are recognised as one of Agenda 2030’s nine “Major Groups”, which play a crucial role in sustainable development and Agenda 2030 also highlights the particular role of local authorities and communities in sustainable urban development.



Comhairle Cathrach
& Contae Phort Láirge
Waterford City
& County Council

Climate Action



A Smarter, Greener
Waterford