To the Lord Mayor and
Members of Dublin City Council

Report No. 307/2020
Report of the Climate Action,
Environment and Energy
Strategic Policy Committee

Comhairle Cathrach
Bhaile Átha Cliath
Dublin City Council

The Climate Change Action Plan Annual Report 2020

The first City Council Climate Change Action Plan (CCAP) 2019-2024 was submitted to the Department in September 2019 as a requirement of the National Adaptation Framework. The plan set out how the Council will improve energy efficiency by 33% by 2020 and reduce greenhouse gas (GHG) emissions in our own buildings and operations by 40% by 2030, whilst making Dublin a more climate resilient city. This is the first annual report on the City Council's progress towards these targets. The City Council achieved a 36.5% energy efficiency improvement by the end of 2019, exceeding the 2020 target. The City Council is on track to achieve a 40% reduction in GHGs by 2030. Building the resilience of the city and citizens is being achieved through the inclusion of nature based solutions, the promotion of active travel and awareness raising of the climate risks.

The Climate Change, Environment & Energy Strategic Policy Committee that was established in September 2019 agreed a programme of works that would examine the progress of the Climate Actions set out in the Council's Climate Action Plan 2019 - 2024

It was agreed that each meeting of the Committee would deal with a Chapter from the Plan and associated issues. This was underpinned by the formation of the Climate Action Subcommittee which examines in detail the status of the actions and reports to the Strategic Policy Committee.

The annual report was examined by the Subcommittee at its meeting held on 16th October and the Strategic Policy Committee 22nd October.

I would like to take this opportunity to express my gratitude to Councillor Claire Byrne, Chairperson, the Members of the Climate Action Subcommittee and the City Council's Climate Team for their endeavours

I therefore recommend that the City Council notes the Climate Change Action Plan Annual report 2020 (attached).

Councillor Michael Pidgeon
Chairperson
Climate Action, Environment & Energy
Strategic Policy Committee

Comhairle Cathrach Bhaile Átha Cliath
Dublin City Council

CARO

codema
Dublin's Energy Agency



DUBLIN CITY COUNCIL

CLIMATE CHANGE ACTION PLAN 2019-2024

ANNUAL PROGRESS REPORT 2020

This Annual Progress Report for the Climate Change Action Plan has been prepared by the Dublin City Council Climate Action team in conjunction with the Dublin energy agency Codema and the Dublin Metropolitan Climate Action Regional Office (CARO) and in partnership with the Environment Strategic Policy Committee and the Elected Members of Dublin City Council.

FOREWORD

The City Council is the largest local authority in Ireland, serves the citizens of the Capital, and is determined to be the leading local authority meeting the challenges of climate change. The first City Council Climate Change Action Plan (CCAP), which was submitted to the Department in September 2019 is our first step in delivering on this commitment. This plan sets out how the Council will improve energy efficiency and reduce greenhouse gas (GHG) emissions in our own buildings and operations, whilst making Dublin a more climate resilient city. It contains four main targets, with progress to date as follows:

(i) A 33% improvement in the Council's energy efficiency by 2020;

The City Council achieved a 36.5% energy efficiency improvement by the end of 2019. This was achieved by way of improvements to public lighting, civic buildings, leisure, Fire Brigade and library facilities, each of these being identified in the Annual Energy Reviews and monitored through the Sustainable Energy Authority of Ireland (SEAI) monitoring and reporting platform.

(ii) A 40% reduction in the Council's GHG emissions by 2030;

This target is monitored using a glide path in the DCC Energy Efficiency review and it is noted that the current EU target for Ireland, is a 30% reduction by 2030, the council's target is a more ambitious target of 40% in line with the COM targets. Our retrofitting work, commitment to the Breathlife WHO targets, and transition to more Electric Vehicles within our fleet have given us a solid foundation on which to deliver on this target. Ongoing work involves consultation with Council members and the public, together with development of the Energy Masterplan.

(iii) To make Dublin a climate resilient city by reducing the impacts of future climate change-related events;

Resilience is being increased through cross-departmental work on incorporating nature based solutions, ongoing improvements to the pedestrian and cycling infrastructure, developing the District Heating scheme for the City and delivery of flood defences. Resilience is also being increased through citizen engagement to foster behaviour change and build awareness of climate risks and how to respond. Related actions also contribute to improving air quality and enhancing biodiversity. Examples of such schemes include the Santry and Dodder greening works, planting in Nicolas and Chatham Streets, and projects in schools, private and public areas of the City; each increases resilience and enhances the living environment for citizens.

(iv) To actively engage and inform citizens on climate change.

The City Council has engaged with the citizens of the City on various levels and through many networks including: climate workshops with city neighbourhood groups; training for businesses; and, community engagement on greening initiatives, such as the Stoneybatter Greening Strategy. Each is delivering community and climate benefits.

In conclusion, the City Council has delivered on the targets set in the first CCAP and will, together with Councillors, businesses and communities, continue to develop and enhance the Plan to make the City of Dublin a climate resilient city that delivers a high quality living environment to its citizens.

Céline Reilly,
Executive Manager,
Environment and Transportation Department,
Dublin City Council

October 2020

INTRODUCTION

Dublin City Council's Climate Change Action Plan 2019-2024 was approved on 13th May 2019 in accordance with the National Adaptation Framework – Planning for a Climate Resilient Ireland 2018 (NAF)[1]. The Plan was also completed in accordance with the requirements of the Covenant of Mayors (COM)[2] for Climate & Energy to which Dublin City Council is a signatory.

In 2019, the Council's Plan set out four key targets and 219 actions that the Council would undertake in the areas of energy & buildings, transport, flood resilience, nature-based solutions and resource management. Since the Plan's publication, the number of actions has reduced to 203, due to the Council combining some actions for efficiency and recognising that a number of actions are now being managed by national or government bodies.

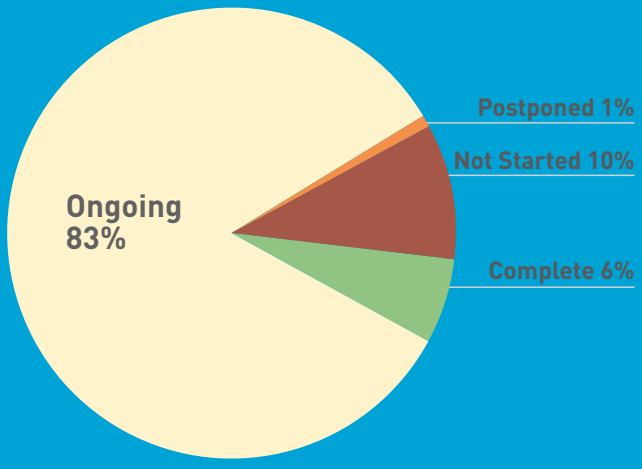
The Plan was developed by Dublin City Council in conjunction with the City of Dublin Energy Management Agency (Codema) and the Dublin Climate Action Regional Office (CARO). The Plan was subject to public consultation and Strategic Environmental Assessment processes. Dublin City Council has committed to reviewing and reporting on this Plan annually, in line with the requirements of the NAF and COM processes.

This report refers to the reporting period from 30th September 2019 to 31st October 2020. Refer to the action tables in this document for supporting information.

In June 2020 the Climate Action Coordinator was appointed, and has been working with the Climate Action Teams (see graphic on page 4) to monitor progress on the CCAP. Monitoring of progress is quarterly and progress reports are provided to the Environment Strategic Policy Committee (SPC). The reports are provided based on thematic area. Since the implementation of the CCAP the SPC has received presentations on progress from Flood Resilience (November 2019), Energy and Buildings (January 2020), Transport (July 2020), Nature Based Solutions (September 2020) and Resource Management (September 2020). The implementation of actions in the CCAP has been challenging due to COVID however, as will be evident in this report, significant progress has been made with 83% of actions ongoing, and 6% completed. Only 10% of the actions have not been started. Of these actions, a number are not due to commence for another 5 years, for example Phases II and III of Public Realm Strategies.

Beyond the CCAP, the Climate Action Team has developed and has begun implementing an engagement strategy to strengthen our capacity to engage with citizens. It is a two-phase strategy, the first phase which commenced in October involved workshops with Area Offices. The workshops included presentations on the CCAP and various programmes and projects such as the Staff Mobility Hub, Dublin District Heating, Air Quality Monitoring, MODOS and flood alleviation works. The second phase, which is set to begin in January 2021 depending on COVID, will be in two parts. The first part will be a collaborative project to retrofit housing with nature-based solutions to adapt our housing stock to future climate risks. The second part will work to the 'hopes and concerns' of communities discussed in phase one. The format of these will be developed with community officers and public domain officers in the respective Area Offices to guarantee that we are responding to community asks. The Climate Action Team recognises the role of DCC in engaging with citizens - without collaboration with communities achieving the targets of the CCAP will be impossible.

203
ACTIONS



ACTION AREA	COMPLETE	ONGOING	POSTPONED	NOT STARTED
Energy & Buildings	2 actions	30 actions	0 actions	6 actions
Transport	3 actions	55 actions	1 action	3 actions
Flood Resilience	4 actions	35 actions	1 action	1 action
Nature-Based Solutions	1 action	19 actions	0 actions	5 actions
Resource Management	2 actions	30 actions	0 actions	5 actions
TOTALS	**12**	**169**	**2**	**20**



UPDATES TO POLICY AND LEGISLATION SINCE THE ADOPTION OF THE CCAP

The policy and legislative context relating to climate action has developed since the adoption of the CCAP. The **Climate Action Plan 2019 – To Tackle Climate Breakdown**[3] represents the Governments all of society approach, aimed at enabling Ireland to meet its EU targets to reduce its carbon emissions by 30% between 2021 and 2030, and lay the foundations for achieving net zero carbon emissions by 2050. The Plan contains a range of multi-stakeholder actions across a variety of sectors including the local authority sector. It also highlights the leadership role of the public sector, including local authorities, and the importance of citizen engagement and community leadership. At the heart of the Plan, is the key message that climate action requires a range of thematic areas to work together to meet the challenge.

A noteworthy action of the Plan was the requirement by local authorities to develop and sign a new Climate Action Charter. This Charter was signed by all local authorities in November 2019. A copy of the local authority Climate Action Charter is presented in the Appendix. Examples of key requirements under the Charter are to:

- Measure the carbon impact of activities and implement measures to reduce carbon emissions in line with national objectives including a 50% improvement in energy efficiency by 2030;
- Put in place a process for carbon proofing major decisions, programmes and projects on a systematic basis, including investments in transport and energy infrastructure, moving over time to a near zero carbon investment strategy;
- Ask suppliers as part of the procurement process to provide information on their carbon footprint and sustainability practices, and implement a green public procurement strategy and procedures across all business areas; and
- Exercise planning and regulatory roles to help improve climate outcomes in the wider community and beyond the public sector, by developing and implementing robust evidenced-based policy and standards on climate action, through appropriate and relevant adaptation and mitigation measures.

The Climate Action Plan also commits to delivering a **Just Transition**[4], recognising the significant level of change required and that burdens borne must be seen to be fair across society. Developing the opportunities in a decarbonising economy is recognised as a key pillar to the Climate Action Plan and in this regard the Plan envisages that existing initiatives and structures will be mobilised to maximise enterprise opportunities. Kieran Mulvey was appointed Just Transition Commissioner by the Government and his first report was released in April 2020. The report acknowledges the challenge ahead and that the transition will impact all sectors, given this, policies and programmes will need to consider and anticipate future social implications of the transition and impacts of climate change in their design.

The Climate Action Plan 2019 – First Progress Report[5] outlined the main milestones reached across sectors since the publication of the National Climate Plan. In terms of the local authority sector, it noted the signing of a Climate Action Charter by each local authority; a survey of local authorities[6] to establish a baseline of current climate change activities and establish best practices; the role of Local Authorities in town hall meetings to progress community engagement on climate action and the role of the CAROs in formulating and delivering technical training to Local Authorities.

The **Climate Action and Low Carbon Development (Amendment) Bill 2020**[7] was published in October 2020 and aims to enshrine in law the approach and actions outlined in the National Climate Action Plan. The Bill puts into law a commitment for net-zero greenhouse gas emissions by 2050, through establishing a 'National 2050 Climate Objective' that the State will pursue the transition to a 'climate resilient and climate neutral economy' by the end of the year 2050. The draft Bill also includes the requirement for local authorities to prepare a Climate Action Plan addressing both climate mitigation and adaptation measures within 12 months of receipt of a request from the Minister. These climate change action plans will contribute to the national 2050 climate objective and shall be reflected specifically within the development planning processes. It is anticipated that the final Climate Bill will be published by government before the end of 2020.

The graphic on the opposite page presents a summary of climate action governance from Local Authority level to National Government level.

Climate action features prominently in the new **Programme for Government**[8] with commitments in

JUST TRANSITION COMMISSIONER

CLIMATE ACTION PLAN DELIVERY BOARD
Chaired by the Department of the Environment, Climate and Communications and the Department of the Taoiseach

CLIMATE CHANGE ADVISORY COUNCIL

CCAC ADAPTATION SUB COMMITTEE

NATIONAL ADAPTATION STEERING GROUP
Chaired by the Department of the Environment, Climate and Communications with representatives from all Government Departments, Agencies, Local Authority Sector for Sectoral and Local Adaptation Plans

GOVERNMENT DEPARTMENT LEVEL GOVERNANCE

CCMA CLIMATE ACTION, TRANSPORT AND NETWORKS COMMITTEE
- Local Authority representatives
- Local Government Management Agency (LGMA) representatives

NATIONAL LOCAL AUTHORITY CLIMATE ACTION STEERING GROUP
- CCMA
- LGMA
- Dublin City Council
- Cork County Council
- Kildare County Council
- Kilkenny County Council
- Department of the Environment, Climate and Communications
- EPA
- OPW
- Met Éireann
- Geological Survey Ireland

LOCAL AUTHORITY NATIONAL LEVEL GOVERNANCE

NATIONAL CLIMATE ACTION REGIONAL OFFICE MANAGEMENT GROUP
- Dublin Metropolitan CARO
- Eastern & Midlands CARO
- Atlantic Seaboard South CARO
- Atlantic Seaboard North CARO
- Dublin City Council
- Cork County Council
- Kildare County Council
- Kilkenny County Council
- Mayo County Council
- Department of the Environment, Climate and Communications
- EPA
- Climate Ireland

CLIMATE ACTION REGIONAL OFFICES – NATIONAL LEVEL GOVERNANCE

REGIONAL CLIMATE ACTION STEERING GROUP
- Dublin Metropolitan CARO
- Codema
- Eastern and Midland Regional Assembly
- Dublin City Council
- Dún Laoghaire-Rathdown County Council
- Fingal County Council
- South Dublin County Council

REGIONAL LEVEL GOVERNANCE

Comhairle Cathrach Bhaile Átha Cliath Dublin City Council	dlr Comhairle Contae County Council	Comhairle Contae Fhine Gall Fingal County Council	Comhairle Contae Átha Cliath Theas South Dublin County Council	Codema Dublin's Energy Agency
Climate Action Team	Climate Action Team	Climate Action Team	Climate Action Team	
Full Council and Strategic Policy Committees (SPC)	Full Council and Strategic Policy Committees (SPC)	Full Council and Strategic Policy Committees (SPC)	Full Council and Strategic Policy Committees (SPC)	

LOCAL AUTHORITY GOVERNANCE

Summary of National to Local Authority Level Climate Action Governance
(Please note, this graphic is a summary for information only as it was not possible to include all Department, Agency and group names on this graphic)

relation to climate legislation, carbon taxation, renewable energy targets, sectoral emission reduction targets, increased funding for sustainable transport and a focus on the retrofitting of private houses.

The **Climate Change Advisory Council (CCAC)**[9] published its 2020 annual review in late September. A key task of the CCAC is to conduct an annual review of progress made over the previous year across all sectors, in reducing greenhouse gas emissions and furthering the transition to a low-carbon, climate-resilient and sustainable economy and society by 2050. A recommendation in the 2020 review is that in order "to better prepare for future climate extremes and limit their impact we need to move from adaptation planning to adaptation action implementing the priorities of existing sectoral adaptation plans and local adaptation strategies…"

At a European level the **Green Deal**[10] published in late 2019 is a new growth strategy that aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use. In its' recent State of the Union 2020[11] address, the Commission has committed to a more ambitious greenhouse gas reduction targets of 55% by 2030 and new climate legislation. This level of ambition for the next decade will put the EU on a balanced pathway to reaching climate neutrality by 2050.

A new **EU Biodiversity Strategy for 2030**[12] was published in May 2020 detailing a comprehensive, ambitious, long-term plan for protecting nature and reversing the degradation of ecosystems. It aims to put Europe's biodiversity on a path to recovery by 2030 with benefits for people, the climate and the planet. It aims to build our societies' resilience to future threats such as climate change impacts, forest fires, food insecurity or disease outbreaks, including protecting wildlife and fighting illegal wildlife trade. A core part of the European Green Deal, the Biodiversity Strategy will also support a green recovery following the COVID-19 pandemic. A new **EU Strategy on Adaptation to Climate Change Strategy**[13] is expected in early 2021, building on the current Strategy, which was adopted in 2013.

COVID-19 IMPACT

The ongoing COVID-19 pandemic has had an impact on all levels of society, with over 1,800 deaths nationwide and over 50,000 confirmed cases at the time of writing. The Economic and Social Research Institute (ESRI) expects Ireland's GDP to decrease by approximately 13% in 2020 because of economic disruptions caused by the pandemic. It subsequently expects economy-wide CO_2 emissions to decrease by 9.5 per cent in 2020[14].

A report by the Environmental Protection Agency (EPA), Ireland in the Pandemic: Environmental observations[15] showed at least temporary improvements in some areas of the environment, including air quality and a reduction in transport related greenhouse gas emissions. Other areas like waste generation increased due to increased household waste and an increase in single use plastic as a result of COVID related requirements. The report concludes that "while there are positives associated with a lower societal impact on the environment, the EPA recognises that the current situation is not normal economic activity. However, as the country exits the lockdown, there is an opportunity to decouple environmental harm from economic growth for a sustainable future. Long-term improvements beyond the end of the crisis can only be achieved by means of a targeted climate and environment policy".

A number of surveys undertaken in recent months[16] on people's experiences during the pandemic particularly when local travel restrictions were in place, found increased cycling and walking and enjoyment of local green spaces like public parks. An increased appreciation of nature and local wildlife was also noted.

Local authorities in collaboration with other actors have had a central role in providing services to citizens during this period through the establishment of local community response forums[17]. The forums provide support such as shopping for food, fuel and other essential household items, transport to medical appointments, delivery of hot meals through local meals on wheels services and the collection of prescribed medicines.

In addition, local authorities have responded to the additional needs of its businesses and citizens during this time in terms of adaptations to the public realm, including the provision of outdoor dining space, footpath space and cycling infrastructure to improve the liveability and mobility in areas and to support business to operate under COVID restrictions.

Simultaneously, a recent Local Government Management Agency (LGMA)[18] report showed that as a result of COVID, Local Authorities redesigned existing business processes, provided enhanced internal I.T. services to support working from home, improved online services for the public/businesses to ensure the ongoing delivery of local authority services. For example, DCC through its COVID Mobility Plan has implemented interventions across the city that support active travel while supporting social distancing.

Some actions such as cycling and pedestrian improvements were actions included in the climate change action plan that have been expedited due to the pandemic. Further information on these actions are provided in the action tables in this document.

This flexibility that Local Authorities have shown in terms of pivoting work practices and public services from office to remote working and the use of technology, online platforms and communications will be of long term benefit to council staff and the public. These practices also have the potential for longer term environmental benefits due to reduced travel and resource use. The call to 'Build Better Back' in a post-Covid world is an opportunity to make our services and society more resilient in the face of future health, environmental and economic shocks.

It is also acknowledged that the pandemic has had significant impacts on the capacity of DCC to deliver services. A decrease in DCC's revenues coupled with COVID restrictions has resulted in some actions within the CCAP being postponed. For example, site work and site visits were delayed or curtailed and public engagement and public consultations events have been postponed or cancelled, including community clean-ups.

COVENANT OF MAYORS UPDATE

All signatories to the European Covenant of Mayors are required to submit a Sustainable Energy and Climate Action Plan (SECAP). All four Dublin Local Authorities (DLAs) Sustainable Energy and Climate Action Plans (SECAPs) were completed in Q3 of 2019. The Covenant of Mayors SECAP is based on the DLAs' CCAPs and the four Dublin Baseline Emission Reports prepared in 2016. The actions from the thematic sections, energy and emission baseline inventory, adaptation baseline, the risks and vulnerability assessments were extracted from the CCAPs and uploaded to the Covenant of Mayors SECAP web template.

The Dublin City SECAP overview can be found on the Covenant of Mayors website:
https://www.covenantofmayors.eu/about/covenant-community/signatories/action-plan.html?scity_id=11815

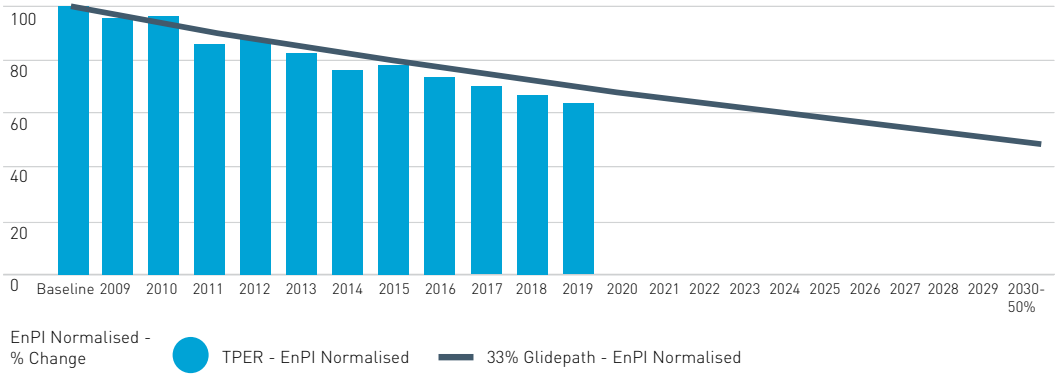
CODEMA UPDATE 2019/2020

This section is a non-exhaustive summary of some of the main activities Codema has undertaken in the last 12 months. Since the Climate Change Action Plan's publication in 2019, Codema has continued its work as the energy advisor to the four Dublin Local Authorities (DLAs). One major change to the company came early in 2020 when Donna Gartland was appointed as Codema's new CEO, taking over from director and founder Gerry Wardell. Donna has worked with Codema for the last six years in the role of Senior Energy Planner and she has been instrumental in developing district heating as a low-carbon solution to Ireland's heating sector and played a key role in securing almost €25 million in total for the Dublin District Heating System and the Tallaght District Heating Scheme through the government's Climate Action Fund. She has extensive experience in energy planning and policy and also as a team builder. Codema will continue to enable the transition to a low-carbon future in Dublin and beyond. Codema also continues to work closely with the Dublin CARO towards a regional approach to climate change solutions.

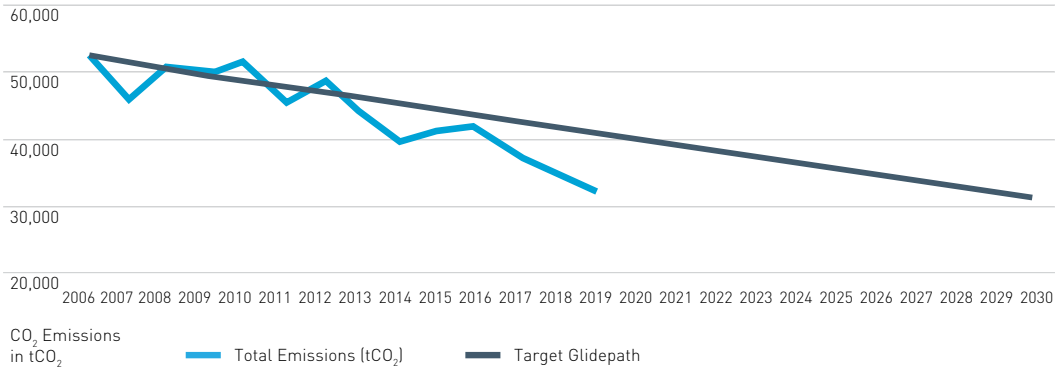
ENERGY MANAGEMENT

Codema assists in the direct energy management within DCC, completing the Sustainable Energy Authority of Ireland (SEAI) Monitoring and Reporting to show the Council's progress towards its 2020 33% energy reduction target. DCC has exceeded the target and achieved a 36.5%

DCC annual energy performance compared to 50% glidepath



DCC annual CO_2 emissions Performance compared to 40% glidepath



energy reduction at the very end of 2019, compared to the baseline. In September's DCC Energy Oversight Committee meeting, Codema presented on DCC's current progress in relation to its 2020 targets and what will be needed in relation to energy savings to achieve the new 2030 energy efficiency target of 50%. This will form a registry of opportunities for future low-carbon projects. Forty-three Display Energy Certificates were generated for public buildings. Two non-domestic Building Energy Ratings (BERs) were also generated for Dorset Street Fire Station and Ballyfermot Civic Centre. Codema has worked on the tender awarded for efficient boiler replacement at the Dublin Fire Brigade's O'Brien Institute fire training facility. Codema regularly assists the DLAs in applications for national funding to assist in the development of low-carbon projects. We have also assisted in the submission of an expression of interest to the upcoming Climate Action Fund for a solar panel and lighting project across multiple Council buildings. Codema also carried out research on behalf of the four DLAs that examines the national Climate Action Plan 2019 requirement for all public buildings to achieve a 'B' BER rating by 2030.

ENERGY AND CLIMATE AWARENESS

In 2020, Codema developed another 42 Home Energy Saving Kits for Dublin City Council's Public Libraries, due to ongoing public demand and success of the scheme within the library network. It will bring to 109 the number of kits that are available across Dublin City Council's 21 library branches. Nationally, the scheme has grown considerably in 2020, with the kits introduced to nine new regions during the year. It will bring to 19 the number of local authority regions / counties in Ireland where the kits are available for the public to borrow from local libraries. Given that Dublin City Council was the first library network to pilot the scheme back in 2016, it highlights how much the Home Energy Saving Kit initiative has grown and the key role Dublin City Council's Public Libraries have played in helping to pioneer and replicate the scheme nationally.

DUBLIN REGION ENERGY MASTER PLAN

Codema is developing the Dublin Regional Energy Master Plan through the SEAI Research, Development and Demonstration (RD&D) programme. The aim of this project is to evaluate and outline the cost-optimal, spatially possible and technically feasible low-carbon scenarios for Dublin to meet its 2030 and 2050 CO_2 reduction targets from the perspective of society, energy consumers and the energy sector. This project looks at the three main energy sectors (heat, electricity and transport) and the synergies between them to deliver more cost-effective low-carbon pathways for the region. It will look at current and future policy impacts and shortfalls to targets needed to make Dublin net carbon neutral by 2050. This is the first master plan of its kind in Ireland to look at the County and small area level, and to assess which solutions will work best within local constraints. The finished plan will aid planners and other decision makers in all energy related plans in the future.

EU PROJECTS

An area Codema has extensive knowledge and experience in is the application and execution of EU projects across a

range of funding streams, at present we have several active projects, namely:

HeatNet NWE: The Interreg NWE HeatNet project aims to remove the policy, economic and technological barriers to fourth generation district heating in North-West Europe. It has six pilot projects and a budget of €11.5 million. The Tallaght District Heating Scheme in South Dublin, which is using waste heat from the Amazon data centre to provide low-carbon heating to several public and private buildings, is one of the pilots. HeatNet NWE will finish in the first quarter of 2021. All learnings will be used in the development of the Dublin Docklands District Heating Project.

TOMORROW: Codema, together with the four Dublin Local Authorities, is developing a collaborative Transition Roadmap for the Dublin Region, which will motivate citizens, local businesses, public authorities and transport groups to work together towards the same goal of developing Dublin as a sustainable, healthy, leading EU city by 2050. This roadmap will be developed as part of the H2020 'TOMORROW' project, in which Dublin is one of six pilot EU cities to develop a 2050 transition roadmap for a climate-neutral, liveable city and county. Codema will roll out a public engagement campaign in 2021 to ensure citizens' voices are heard, so they can take ownership of this transition, and the roadmap will be developed by the end of 2022.

Decarb City Pipes: Codema are partners in the Decarb City Pipes 2050 project which kicked off in September 2020. This project is focused on the decarbonisation of heat through capacity building in cities. This includes creating local working groups (made up of key local stakeholders within the cities of Bilbao, Bratislava, Dublin, Munich, Rotterdam, Vienna and Winterthur) to outline gaps in knowledge and current practices (planning methodologies, tools, policy instruments, effective governance structures, etc.) and then go about addressing these gaps through deep peer-to-peer learning with input from an experienced advisory board. An in-depth engagement process will be adopted to develop these roadmaps, to build strong effective working relationships within each city, and ensure strong buy-in from stakeholders.

REDAP: Codema is a partner in the Regional Energy Demand Analysis Portal (REDAP) project, which was approved under the 2018 European Research Area Network (ERA-Net) Smart Energy Systems fund and supported by SEAI. REDAP presents a cross-sectoral approach to regional energy systems and will help end-users to spatially visualise and better understand the characteristics of urban energy demand. This project will provide insight to end-users regarding the region's building stock and will incorporate a process for analysing the dynamic energy demand of urban mobility systems across different routes and modes.

QGasSP: In September, Codema along with partners from Estonia and Finland, were awarded the tender to deliver the QGasSP (Quantitative Greenhouse Gas Impact Assessment Method for Spatial Planning Policy) project. The objective of this research project is to produce a methodology that will allow planning authorities at national, regional and local administrative levels to quantify the influence of spatial planning policies on GHG emissions. The Eastern and Midlands Regional Authority (IE) will be one of the beneficiaries of the outcomes.

Codema is still actively seeking EU funding to advance the transition to a carbon-neutral Dublin. To this end, we have recently applied for funding for several projects through the Horizon 2020 September call and the EU City Facility funding stream.

DISTRICT HEATING

Codema have been supporting Dublin City Council in the development of the Dublin Docklands District Heating Scheme, which utilises waste heat from the Dublin Waste-to-Energy plant. Codema has provided assistance in the development of techno-economic models, provided clarifications for Climate Action Fund approval, Part L compliance analysis and heat load modelling.

SUSTAINABLE ENERGY COMMUNITIES

Codema won the tender to coordinate the SEAI Sustainable Energy Communities (SEC) Programme for the Dublin and Mid East region. The seven counties (4 Dublin LAs, Kildare, Wicklow and Meath) are each provided with a mentor to help advise the SECs and move them along their progress from learning about energy and climate change, to conducting an energy master plan and registry of opportunities to finally undertaking projects. The aim is to upskill and educate but also to reduce energy consumption through behavioural change, energy efficiency, renewable and smart solutions. The seven local authorities are acting as lead applicants on behalf of the SECs for their energy master plans providing finance to activate grants and procurement expertise for hiring consultants. The tender will last for four years and has already proved very popular, with fifteen new SECs signing up and a current total of ninety-five SECs across the region.

CLIMATE ACTION REGIONAL OFFICE (CARO) UPDATE

The Climate Action Regional Offices (CAROs) were established in 2018 in response to Action 8 of the 2018 National Adaptation Framework (NAF) – Planning for a Climate Resilient Ireland. The offices are mandated to co-ordinate engagement across the varying levels of government and help build on experience and expertise that exists in the area of climate change and climate action. The offices have a role in driving climate action at both regional and local levels, including supporting the implementation of local adaptation plans/Climate Change Action Plans.

The composition of the four Climate Action Regions has been determined by the geographical and topographical characteristics, vulnerabilities and shared climate risks experienced across local authority areas. The four CARO regions, constituent local authorities and associated lead authorities are shown in the table on this page.

The Dublin Metropolitan CARO has been working closely with the four Dublin Climate Teams and Codema, the Dublin Energy Agency to support the implementation of their Climate Change Action Plans. The Dublin CARO has a regional steering group comprising the four Director of Services of the Dublin Local Authorities, and colleagues from Codema and the Eastern Midlands Regional Assembly. Examples of projects across the six key areas of the CARO work programme are included below:

Management and Governance

• National, Regional and local climate team meetings
• Participation in sectoral adaptation steering groups and working groups
• Preparation of detailed business case to support climate action for the local authority sector
• Participation in CCMA/LGMA and Government working groups on Climate Action

Climate Adaptation

• Assisting local authorities with implementation and reporting of Climate Change Adaptation /Action Plans including implementation guidance
• Preparation of guidance such as guidance document for adaptation of regional & local roads
• Working with Government Departments and agencies on the implementation of sectoral adaptation plans



Climate Action Regional Offices (CAROs)

CLIMATE ACTION REGION	LOCAL AUTHORITY FUNCTION AREA	LEAD AUTHORITY
Dublin Metropolitan	South Dublin, Fingal, Dún Laoghaire-Rathdown, Dublin City	Dublin City Council
Eastern and Midlands	Carlow, Cavan, Kildare, Kilkenny, Laois, Leitrim, Longford, Louth, Meath, Monaghan, Offaly, Roscommon, Tipperary, Waterford, Westmeath, Wexford, Wicklow	Kildare County Council with support from Kilkenny County Council
Atlantic Seaboard North	Donegal, Sligo, Mayo, Galway City & County	Mayo County Council
Atlantic Seaboard South	Clare, Limerick, Kerry, Cork City & County	Cork County Council

Climate Action Regional Offices

• Collaborating with key climate actors such as Climate Ireland, 3rd Level Universities
• Participation on National Working Groups such as new Coastal Change Strategy Steering Group

Climate Mitigation
• Preparation of guidance on topics such as Decarbonisation Zones, Sustainable Energy Communities, Carbon Offsetting etc.
• Participation in Regional and National Electric Vehicle (EV) working groups
• Collaboration with energy agencies (where in place) and SEAI on energy related projects
• Identifying and assisting local authorities with projects eligible for the National Climate Action Fund

Communications and Citizen Engagement
• Presentations to Councils, Government Departments and Agencies, youth organisations and the general public
• Supporting individual local authorities with community engagement events including LEADER funded climate action workshops
• Collaboration with key stakeholders such as GAA on Green Clubs Pilot, Comhairle na nÓg, Age Friendly Ireland
• Finalisation of CARO website and social media communication channels

Training And Education
• Preparation of a comprehensive Climate Action training plan for the LA sector across all levels (see below for further details)
• Identification of external training and upskilling opportunities in climate action for the Local Authority Sector
• Collaboration with expert organisations and representative bodies for tailored workshops and training seminars

Knowledge Development
• Development of online Weather Impacts Register App (WIRE) for Local Authorities
• Preparation of guidance and position papers on climate action areas
• Identification and communication of funding opportunities for climate action projects in local authorities and assistance with application process
• Participation in relevant climate action research projects from the Environmental Protection Agency research programmes and other funding programmes
• Engaging with local authorities and Regional Assemblies on planning issues relating to climate action including the hosting of planning workshops

A key focus of the CAROs for the remainder of 2020 and into 2021 will be the roll out of climate action training across the local authority sector. This training plan has been developed by the CAROs in collaboration with partners such as the Local Authority Environmental Services Training Group, Climate Ireland, the Sustainable Energy Authority of Ireland (SEAI), Met Éireann, the Environmental Protection Agency, the Institute for Public Administration and others. This training will be targeted at all staff levels and will focus on the following areas;

• *Climate Action Leadership* – aimed at all elected members & senior staff

• *Climate Action Awareness Training* – aimed at building capacity across climate action teams

• *General Awareness Building* – online training for all indoor staff to raise awareness of climate action

• *Practical Climate Action* – training for all outdoor staff to assist them to deliver practical climate action measures

• *Behavioural Change Training* – to empower staff to promote positive change both internally and across the community

• *Specific and Targeted Training* – training arising from specific knowledge gaps or individual policy/role requirements, such as spatial planning, community engagement, roads adaptation, age friendly projects, Comhairle na nÓg etc.

LOCAL AUTHORITY
Climate Action
Training Programme

PROGRESS SUMMARY BY CCAP ACTION AREA

ENERGY & BUILDINGS

DCC has achieved significant progress on actions under the thematic area of Energy and Buildings. As stated in the CCAP, actions are focused on DCC's use of energy in owned, operated and managed buildings. Preliminary data from the SEAI Monitoring and Reporting (M&R) process, which has been completed for 2019, indicates that DCC have achieved a 36.5% energy reduction from the baseline, based on 2019 data, having reached their 2020 energy efficiency target of 33% at the very end of 2018. Achieving this milestone is the result of various energy efficiency works in Council owned and operated buildings undertaken by DCC and public lighting upgrades.

SOCIAL HOUSING

In relation to social housing under Phase I of the Fabric Up Grade Programme 8,057 social housing units have been upgraded to an average BER of C3 from an F. Phase II has commenced and to date 814 units have been upgraded to an average BER of C1 from an E2 at a cost of €10.1 million. In total, 70% of the houses in DCC's social housing stock have been upgraded, and it is estimated that residents have saved €46.4 million in energy bills as result, to the end of 2019.

COVID has had an impact on the progress of Phase II of the programme, as the health and safety of tenants and contractors is DCC's top priority. The target for retrofits is 200 units a year over the next three years; however, this may decrease, due to the impact of COVID. Beyond COVID, consideration will need to be given to emerging targets as set by the Department of Housing, Planning and Local Government (DHPLG) and the Department of the Environment, Climate and Communications. For example, a circular was released by DHPLG requiring that retrofits achieve a BER of B2. This was subsequently amended. It highlights a growing challenge with the retrofit programme - the balancing of the costs versus the benefits and environmental gains against the age of the building stock.

DCC is participating in a number of projects in relation to building retrofitting. One project is assessing the full value of retrofits, partial renovation and new builds by considering life cycle assessment and embodied carbon. The findings of the research will form guidelines for future projects. DCC architects are actively involved in Build Upon2, a project led by the Irish Green Building Council. The project is establishing a framework for evaluating the impact of retrofitting and energy efficiency works in the built environment.

ENERGY PERFORMANCE CONTRACTING

In addition to social housing, DCC is using energy performance contracting (EPC) to undertake retrofitting and energy efficiency works of leisure centres, libraries and



Before and after images of Dublin City Council's recent passive refurbishment of St Bricin's Park Complex in Arbour Hill

other DCC owned and operated buildings. EPC I, which included 7 leisure centres, has entered its service phase, and monitoring has commenced as per the contracts to guarantee that the 38% of annual energy savings and a reduction of 639 tonnes of CO_2 are achieved. EPC II has also started, and the annual energy savings are anticipated to be between 30 and 35%, with a CO_2 reduction of over 300 tonnes.

PUBLIC LIGHTING

Public lighting upgrades are ongoing and are currently on track, with 8000 retrofits now completed resulting in a 50% energy reduction. COVID has created delays, however, the project is expected to be completed over 8 years, by 2028. A challenge that persists with this project is metering. Virtual metering has not yet been introduced by the ESB and this would provide a means to introduce dimming and trimming which would allow for addition energy and costs savings.

ENERGY MANAGEMENT AND PLANNING

In addition to these projects, DCC is working towards achieving ISO50001 Energy Management Standard; this is a challenging process given the size and diversity of DCC's asset base. However, work with Energy Elephant, a provider of energy management software, has highlighted the value that the certification will create in terms of monitoring energy use and achieving CO_2 savings.

At a city-wide level, DCC is working with Codema to develop an energy master plan for the city. The plan will assist in identifying new projects and critically, potential strategic energy zones and decarbonisation zones for the forthcoming Development Plan, as required by the Eastern Midlands Regional Assembly's Regional Spatial and Economic Strategy[19].

Work is continuing on the Dublin District Heating project, with the Project Team working towards finalising the procurement competition, which will appoint a project partner to assist DCC in the project delivery. The procurement competition aims to appoint a suitable project partner, to allow DCC to deliver our long-term goal to expand district heating throughout the City and Dublin area. The objective of DCC in relation to the Project is to develop a highly efficient district heating system which minimises carbon emissions, improves air quality, reduces dependence on imported fossil fuels and is accessible to as many customers in the Dublin City Area as possible. Work is also continuing in respect of the network design, with preliminary designs being developed and site investigations being undertaken to inform the detailed design. Detailed design is being carried out for the 'Irish Glass Bottle' and 'Fabrizia' sites within the Poolbeg West Strategic Development Zone, to help ensure these sites are district heating ready.

ENERGY MANAGEMENT AND PLANNING PROGRAMME FUNDING

CURRENTLY FUNDED	DEPARTMENT/ AGENCY	AREA
EU H2020 'Tomorrow' Project - creating a low-carbon transition roadmap for Dublin with citizens at the centre	Codema	Energy & Buildings
EU H2020 'Decarb City Pipes' Project - creating a roadmap to decarbonise the heating sector in Dublin with local working group (incl. DCCAE)	Codema	Energy & Buildings
SEAI RD&D 'Dublin Region Energy Masterplan' project - creating a scientific evidence-base for Dublin to identify possible zero-carbon pathways	Codema	Energy & Buildings
EU Era-Net 'REDAP' Project - creating an online 'digital twin' of the Dublin energy demand	Codema	Energy & Buildings
Climate Action Funding secured for DCC District Heating project, which will partially fund the project delivery	Codema / DCC	Energy & Buildings
Climote – Smarter heating controls pilot. Funding indirectly provided by Electric Ireland. Trial 100 units (€39.9k) Further 1,000 units if trial successful (€399k)	Smart Dublin	Energy & Buildings
Smart Docklands Innovation District – Deployment of multiple smart city projects and demonstrators (flooding, environment, energy and connectivity) across docklands working across industry, academia and engaging local residents/ communities. Partnership with Science Foundation Ireland (SFI), Enable and CONNECT research centres based in TCD (€500,000 over 2 years with co-funding from SFI)	Smart Dublin	All

TRANSPORT

Addressing emissions from transport is challenging. Citizens need to move around the city, as well as into and out of the city for work, school and leisure. Supporting citizens to choose active modes of transport is the primary focus of DCC's transport actions. DCC works with the National Transport Authority (NTA) to implement infrastructure in the city that supports cycling. Additionally, DCC works with the NTA, and Dublin Bus to support the build out of the bus routes and other modes of public transport.

Recognising the importance of leading by example, DCC has been working to encourage staff to choose active modes of transport to and from work, and to meetings. To date there are 120 staff who have signed up for the Smart Mobility Hub (SMH) in the Civic Offices which provides staff with push bikes, e-bikes and electric vehicles to use to attend meetings. Phase II of the project has started and new locations are being identified.

DCC FLEET

DCC has implemented a strategy to change out vehicles in the fleet to EVs. Currently there are 33 EVs with 10 more to arrive by the end of 2020. Conversion of the fleet is not without challenges, in particular the capacity distribution network in depots to support EV charging infrastructure.

COVID AND TRANSPORT

COVID is changing the nature of responding to transport and climate change in the city. During the lockdown fuel use by the DCC fleet decreased by 60%, however, use is rising again. Similarly, private vehicle numbers in the city and emissions decreased during lockdown. Emerging from lockdown, numbers are increasing and in some cases exceeding the previous year.

COVID has provided the opportunities to implement changes in the city that will facilitate behaviour change in the long term. DCC has been working with the NTA to implement the Interim Mobility Intervention Programme for Dublin City. The plan is working to address the challenges of allocating space to various road users in particular enabling pedestrians to maintain social distancing.

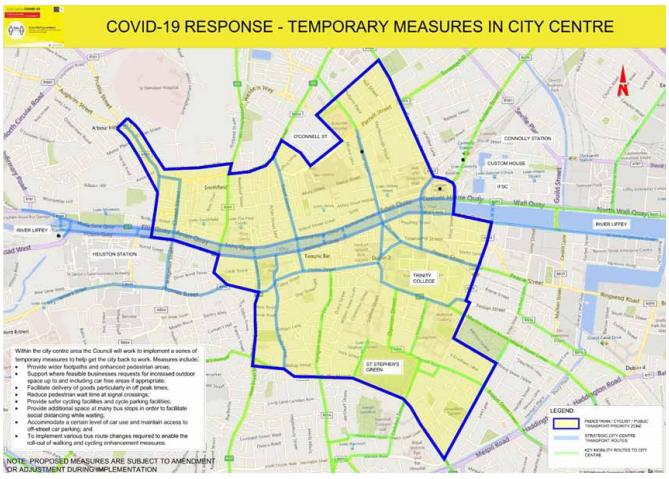
Temporary measures have been put in place, with over 800 interventions having been implemented across the city. Interventions include:

- Increasing width of foot paths
- Pedestrian Trials – Grafton Street Area
- Protected Cycle Facilities
- Contra-Flow Facilities
- Cycle Parking installation
- Filtered Permeability Trials
- On-street car parking spaces & loading bays removal or relocation
- Queueing at bus stops – a number of trials underway

Pedestrian trials were well received in August and new cycling infrastructure continues to be implemented. Notably, the Liffey Cycle Route has been implemented as an interim measure as part of the COVID Mobility Plan. Preliminary studies are underway for the permanent scheme. This includes preliminary assessments of the Quay walls as well as an opportunities and needs assessment of the Route. Additional work is being done



School Zone launch in Dublin 1



COVID measures

to promote active travel in schools as part of the COVID Mobility Plan. Schools are receiving additional bike parking stands, and spaces in front of schools are being designated 'safe zones'. There are currently 10 schools that have introduced safe zones.

Lessons are also being learned from COVID that will be valuable as the city strives to achieve the 15-minute city. The objective of the 15-minute city is to ensure that citizens can access all their daily needs by walking or cycling no more than 15 minutes from their front door. In promoting active travel, the COVID Mobility team presented citizens with a map of the city showing 2km and 5km radiuses of the city. Plans are underway to produce similar maps of Dublin's urban villages to enable citizens to quickly see what is accessible by walking or cycling.

PUBLIC REALM

While COVID has enabled the implementation of interventions that support active travel, these measures are temporary in nature. Work is ongoing on key public realm projects that will not only contribute to the city's efforts to promote active travel, but increase the city's resilience to climate change by including sustainable urban drainage, green infrastructure and blue infrastructure.

NEW ACTIONS

DCC's Climate Action Team and Smart Dublin have engaged an expert on car sharing and car shedding to undertake research in support of actions T55 and T58 in the CCAP. However, this research may also inform the development of new actions and policies that will align with National Government Transport objectives. DCC has been embracing the concepts of shared mobility such as bikes and cars in particular. This has seen an increase in the number of shared mobility providers operating in our city. Currently in the city, there are a number of bicycle and car sharing services available to our citizens and looking towards global trends in this area it is expected that this number of providers will increase. The proposed research will examine the current DCC approach to policies in relation to supporting shared mobility services. The work will include a review of licence agreements and operating conditions to suggest improvements and innovative approaches for how the city can encourage a step change in how these services can be scaled across the city council and wider Dublin Region.

In February 2020 Dublin City Council along with the other three local authorities in the Dublin region signed up to the UN WHO Breathe Life commitments. This commits Dublin to reaching WHO air quality guideline values by 2030. Recognising the challenge of this commitment DCC's Air Quality team, Smart Dublin and the Climate Action Team are exploring the potential of engaging various private sector and academic stakeholders to expand our network of air quality sensors to gain greater insights into Dublin's air quality. In particular, the focus of these partnerships will be the air quality of areas with high footfall and users of active travel modes, for example areas of the city that have seen the implementation of COVID Mobility interventions.

TRANSPORT PROJECT FUNDING

CURRENTLY FUNDED	DEPARTMENT/ AGENCY	AREA
Smart Workplace Mobility Hub - Small business innovation challenge (SBIR) - E-cars, e-bikes, app and booking system for workplaces –multiple pilot projects, phase 2 includes scale up project with Sixt, Nissan, UCD, GTS & Bleeperbike. €200k (Co-funded with EI)	Smart Dublin	Transport
Last Mile Delivery - Small business innovation challenge (SBIR)– piloting multiple projects on digital kerbside, sustainable last mile deliveries. Phase 2 underway. €220k (co funded with EI)	Smart Dublin	Transport
Mobility as a service (MaaS) - work programme in partnership with the NTA – €50k funding from DEPR through Smart Dublin	Smart Dublin	Transport
Smart Docklands Innovation District – Deployment of multiple smart city projects and demonstrators (flooding, environment, energy and connectivity) across docklands working across industry, academia and engaging local residents/ communities. Partnership with Science Foundation Ireland (SFI), Enable and CONNECT research centres based in TCD (€500,000 over 2 years with co-funding from SFI)	Smart Dublin	All

FLOOD RESILIENCE

DCC works with the Office of Public Works (OPW) and neighbouring local authorities, to adapt areas that are vulnerable to flooding. In 2019, the OPW released a sectoral adaptation plan for flood risk management Flood Risk Management - Climate Change Sectoral Adaptation Plan 2019-2024, with which DCC will have to align. The Plan sets out the OPW's approach to flood risk:

• Prevention: Key to prevention is imbedding flood risk management in all government policies, but particularly planning policy to prevent development in flood prone areas. In 2009 the OPW and DHPLG developed guidelines for planners to assess planning and development applications for flood risk.

• Protection: Ireland's Catchment Flood Risk Assessment and Management (CFRAMs) identified flood relief schemes across the country. The hierarchy of protection goes from green infrastructure to grey infrastructure. Identifying the appropriate protection response includes an assessment of the feasibility schemes for each area that account for the unique characteristics of an area.

• Preparedness: As flooding is not always preventable or possible to protect from, preparedness is critical. This involves preparing the public by building awareness prior to, during and after flood events by providing information on what to do. Preparedness may also include flood warning systems

As flooding is a key climate risk that will have impacts on critical infrastructure, transport, water quality, health and biodiversity, responses to flooding will need to consider all sectoral adaptation plans.

DCC is actively working with neighbouring local authorities to achieve a regional approach to flood resilience. The Dublin Bay Sentinel Group has been successfully established and is working to address coastal flood risks and sea level rise in Dublin Bay. DCC strives to implement flood alleviation measures that include nature and have multiple benefits beyond flood defence, such as providing new spaces for recreation and habitats for birds and animals. Currently there are approximately 15 flood alleviation projects under way in the city. The projects are at various stages.

In addition to flood alleviation projects DCC is exploring innovative approaches to flood risk management. DCC is participating in a UCD led project – Operandum which endeavours to use sensors to monitor water levels and assess the impact of green infrastructure interventions to mitigate flood risk. Further, DCC is entering phase II of the gully monitoring SBIR, which uses sensors to monitor gullies around the city for flood risks.

In accordance with the OPW approach to flood risk management, DCC is actively working with communities to promote flood awareness and preparedness. The OPW provides information via two websites: floodinfo.ie and flooding.ie. The website floodinfo.ie provides information on flood risk both fluvial and coastal, based on three scenarios: low probability, medium probability and high probability. Citizens can find localised flood maps of



Flood alleviation works, in conjunction with upgrades to the public realm at George's Quay

Dublin and photos of past flood events to understand the extent to which areas were flooded. In addition to this, users can view a map of the flood plans that have been developed. The second website, flooding.ie, is focused on protection. Information provided on the website serves to inform people how to protect themselves, and their property before, during and after a flood event.

Currently, there are two schemes that the public can easily access information about the Camac Flood Alleviation Scheme and the Poddle Flood Alleviation Scheme. Environmental surveys are being conducted for the Camac scheme. The surveys will develop a full understanding of the environment within the catchment. This will involve several surveys within the area and the construction of hydraulic computer models to identify the flooding. This will then allow the identification of possible flood alleviation options.

Public consultation has recently closed for the Poddle Flood Alleviation Scheme. The River Poddle rises in Cookstown, Tallaght and flows north-east through Tymon Park, following a circuitous route through Templeogue, Kimmage, Harold's Cross, Tenters and Temple Bar. The river catchment has become heavily urbanised in recent times, with the watercourse itself becoming regimented, altered and concealed to suit local habitation. The downstream reach of the Poddle in particular is heavily culverted, with the lower 4km flowing almost exclusively beneath the busy South Inner City streets. As such mitigating future flood risk is a key priority.

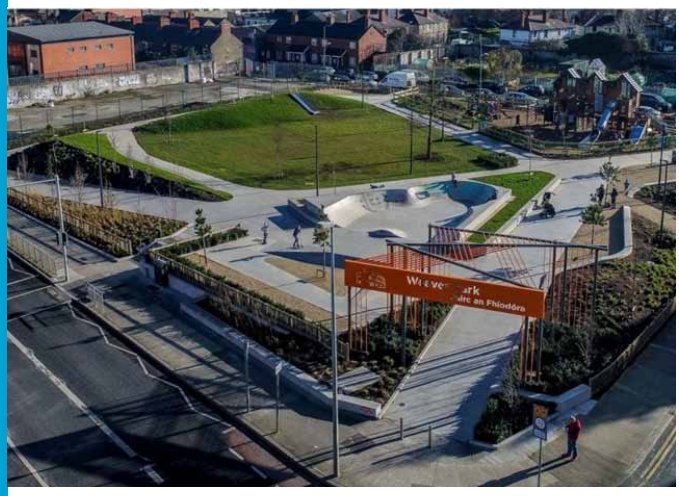
Flood alleviation works are a collaborative effort across local authorities, as demonstrated by works being undertaken on the Rivers Camac, Poddle and Dodder, and interdisciplinary, as demonstrated by the defences in Clontarf. Recent flood defence works completed on George's Quay are the result of collaboration between various departments. The flood wall has had 650mm added to it to account for sea level rise due to global warming to the end of the century, year 2100. Approximately 140mm of this appears to have occurred already over the last 20 years in Dublin Bay. The trees and shrubs have been added recently by the parks division, to provide drainage, cooling and amenity value. The bicycle stands and Dublin Bikes are another element of tackling global warming by providing alternatives to fossil fuels transport methods and improved public health. The walls and public realm areas are made up of thick clad Wicklow Granite and natural stone and are designed to last for at least 100 years.

FLOOD RESILIENCE PROJECT FUNDING

CURRENTLY FUNDED	DEPARTMENT/ AGENCY	AREA
Operandum EU H2020 - Flood Mitigation and Nature Based Solutions (overall project €14,000,000, 26 partners, including University College Dublin) (€123k for DCC) Partnership with University College Dublin (Ongoing – 2 years left) OPERANDUM will deliver tools and methods for the demonstration and market uptake of Nature-Based Solutions to reduce hydro-meteorological risks. https://www.operandum-project.eu/	Smart Dublin	Flood Resilience and Nature-Based Solutions
Gully Monitoring - Small Business Innovation Challenge (SBIR) – piloting delivery of low cost gully monitoring sensors to help mitigate flood risk. Phase 2b deployment underway. €260k (co funded through EI)	Smart Dublin	Flood Resilience



Chatham Street Public Realm Improvement



Weaver Park



Wildflower planting in Civic Offices

NATURE-BASED SOLUTIONS

Bringing nature into the city is critical to mitigating and adapting the city to climate change. It is not without challenges, especially in a city that is built up. However, recognising the value of nature as a solution to the problem of climate change, DCC is actively working to implement nature-based solutions across the city.

Guiding Nature-Based Solutions (NBS) actions are the Biodiversity Plan, Tree Plan, Public Open Space and Parks Strategy, and Invasive Species Plan. These plans have been informed by, and respond to, National and EU policy directions. Similar to Flood Resilience Actions, NBS Actions will have to respond to the sectoral adaptation plans. Fortunately, collaboration across departments and applying an interdisciplinary approach, the multiple benefits of using NBS are being prioritised. This can be seen in the formation of cross-departmental working group on sustainable urban drainage (SuDS) which will produce guidelines that will inform how SuDS solutions are implemented.

There are several projects where SuDS measures, namely tree planting and rain gardens have been implemented: for example, Chatham Street.

PARKS

DCC Parks has continuously been implementing changes to parks and open spaces to support biodiversity, in particular pollinators. In the last few years DCC Parks has been working on using more pollinator friendly plants specifically wild flowers. The grounds of the Civic Offices are illustrative of this, as is the refurbishment of St. Audoen's Park. COVID has drawn attention to the value and importance of access to green space for health and well-being. This recognition is an opportunity, as the spotlight is on the quality of green spaces.

GREENING STRATEGIES

Prior to COVID, research was undertaken that informed the Greening Strategies for the Liberties, Stoneybatter, the North East Inner City, and the Grafton Street Quarter (Heart of Dublin Public Realm). These are areas where there are significant deficits of green space, for example in the Liberties there is 0.7m^2 per person. The recommended amount is 20 to 25 m^2. As such increasing the amount of green space in these areas is essential. Works are ongoing in these areas and have been well accepted by the public.

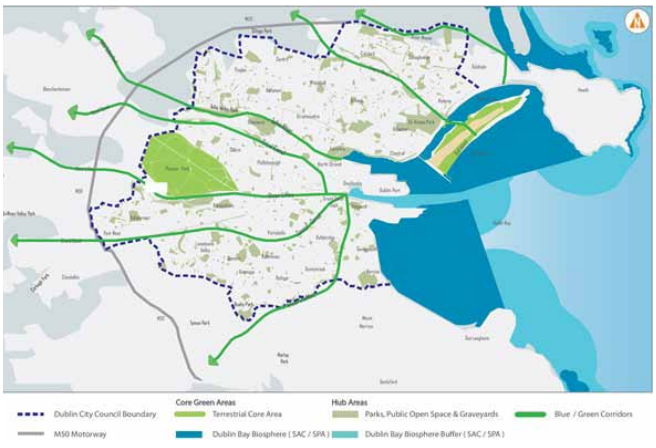
Increasing the connectivity of DCC's green infrastructure network is an opportunity to engage citizens. DCC Parks has been working with academia to map the trees of Dublin and to collect data on the health of the trees throughout the city using Curio a tree mapping tool (https://www.curio-eco.com/world). Understanding the health of Dublin's trees is essential to responding to the climate crisis, as it allows management of trees to be proactive.

NEW ACTIONS (LA CLIMATE TEAM)

A review of the existing actions was conducted with Head of Parks and Culture Services to refine actions to better align with existing programmes and governance structures. The rationale for alteration or removal of actions is provided in the accompanying Nature-Based Solutions action table. Briefly, actions that are the remit of National Government or where resources are not currently available have been identified and removed, to ensure that DCC is focused and delivering against the remaining actions.

The Climate Action Team is responsible for a new project exploring food production, consumption and waste that will align with NBS and Resource Management actions, set out in the Plan and which will engage communities. Funding for this project is through Creative Ireland and is currently in the drafting stage. The preliminary concept is to explore Dublin's vegetable roads to reconnect citizens with their food heritage and strengthen the understanding of how nature provides food, feed, fuel and fibre.

As DCC is entering a new development plan cycle, which will address climate change throughout, the opportunity to further develop DCC's green infrastructure network will not be missed. Various departments are collaborating with the Planning Department to inform the new City Development Plan.



Green Infrastructure Network



Curio: Mapping Trees with Citizens

RESOURCE MANAGEMENT

COVID has had a significant impact on Resource Management, as the movement of goods into the city and waste out of the city is not without challenges. Businesses, particularly those in food and beverage have adapted their service to a takeaway model with a consequential increase in single use packaging. This has adverse consequences for waste services, with higher volumes of waste being disposed of in the public realm. During the lockdown, waste services have also seen an increase in illegal dumping, yet these services have continued to be provided. It is recognised that engagement with citizens is critical as the volumes of litter and waste have increased and proper disposal is essential for health and safety of citizens and the environment. In this regard, social media is being used to promote the litter bin tagging programme, litter campaign, and use of bring banks.

In person engagement with communities has been severely impacted due to COVID, as such it was not possible to run the Dublin Community Clean-up Day and National Spring Clean. Where social distancing can be observed DCC has continued to support community clean-ups during this time. The leaf composting programme which was introduced in Autumn 2019 and saw 800 tonnes of leaves collected and diverted from landfill will continue this Autumn.

SEGREGATED WASTE

The Circle City Project commenced in October. This project will see the introduction of segregated waste bins into the city. Analysis will be undertaken of the use of the bins, in particular the correct use of bins. The project will also include a trial of Big Belly Solar compactor bins designed for segregated waste. The Big Belly Bins include a dashboard that allows for DCC to optimise collection routes and assess trends such as use of bins across the city.

MODOS

MODOS, a circular economy training programme, completed a successful pilot in 2019 with 7 businesses. The programme is designed for small and medium sized businesses and consists of four modules. The modules explain the circular economy and how it will provide benefits for businesses in terms of reducing costs, creating a competitive advantage and future proofing. Participants learn from experts to embed circular economy practices into their supply chains, and to develop their own solutions.

Due to COVID, MODOS has moved to an online format for 2020. The first series of online modules were delivered in September and October with 37 small and medium sized businesses participating. It is also being expanded nationally.



Composting of organic waste including leaves

Big Belly Bin



Circle City Bin



ENERGY & BUILDINGS

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
ACTIONS CURRENTLY BUDGETED							
ENERGY PLANNING							
E1	Create Energy Master Plan for the Dublin Region	In the next 5 years	Codema	Website with e-Map		The Dublin Region Energy Masterplan is progressing as planned. The team have now developed a model of the 'current situation' of energy demand and supply in the residential, commercial and public sector buildings on an hourly basis. This model has been coded in Python to allow easy manipulation and automatic update of data into the model from online sources. New sources of data have been incorporated, such as the smart gas and electricity meter trial data, and we are now incorporating new data from SEAI on all public buildings in Dublin and the BER data broken down by small areas, which allows us to more accurately estimate energy demand in the residential sector. We have experienced some delays due to accessing data from other organisations, but we are working with the CSO and NTA on accessing updated data based on the 2016 Census, providing special tabulations that we can incorporate into the model. Work has also started on identifying all the low-carbon potential in the Dublin region, starting with local sources of fuel and heat which can be used to offset reliance on fossil fuels currently used for heating. An analysis of the electricity grid impacts has also begun, using data from ESB networks, looking at distribution grid capacities and the effects of increased demand for EV charging, heat pumps and data centres on the Dublin grid, and the possible conflicts between these demands in the future. We have also arranged a workshop with the Planning group established by CARO to get planning feedback and input into the masterplan model.	Ongoing
E2	Requirement for all new developments to be district heating-enabled in Poolbeg West, North Lotts and Grand Canal SDZs	10 years plus	Environment and Transport/ Planning and Property Development	# of buildings DH-enabled		Poolbeg West SDZ – Ongoing/Planning; 'Docklands' SDZ – 46 Built / 28 Under Construction	Ongoing
E3	Prepare Dublin City Sustainable Energy and Climate Action Plan	In the next 5 years	Codema	SECAP complete		DCC SECAP complete in Q3 of 2019. The CoM SECAP is based on the Dublin City CCAP and the Dublin City Baseline Emission Report 2016, the actions, energy and emission baseline inventory, adaptation baseline, the risks and vulnerability assessments were extracted from the CCAP and uploaded to the CoM SECAP web template. The Dublin City SECAP overview can be found on the CoM website https://www.covenantofmayors.eu/about/covenant-community/signatories/action-plan.html?scity_id=11815	Complete
E4	Evidence-based climate change chapter in *City Development Plan 2022-2028*	In the next 5 years	Planning and Property Develoment	Chapter with policies and development management standards		The Development Plan Team have been engaging with staff and stakeholders to establish topics for issues papers that will inform the upcoming Development Plan process set to commence in December 2020.	Ongoing

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
ENERGY MANAGEMENT							
E5	Develop ISO 50001 compliant energy management system	In the next 5 years	Environment and Transport	System developed and ISO 50001 compliant	Energy Efficiency, GHG Reduction	DCC is in process of implementing an energy management system to ISO50001 standard. This is a process that is complicated by size and diverse nature of the organization and its asset base.	Ongoing
E6	Annual Monitoring & Reporting to SEAI	10 years plus	Codema	DCC's energy use monitored and reported	Energy Efficiency, GHG Reduction	The M&R process was completed for 2019. SEAI's 2019 Public Sector report is due out in January before the Public Sector Energy Conference. Preliminary data indicates that DCC have reached their 2020 energy efficiency target of 33% one year early. With new energy efficiency targets released by the government SEAI are currently looking at updating the M&R methodology.	Ongoing
E7	Publish Energy Review annually	10 years plus	Codema	Review published, # of recom-mendations implemented	Energy Efficiency, GHG Reduction	The 2019 Energy Review will be published in October 2020. The review clearly demonstrated where energy is used within the DCC's significant energy users, what drives their consumption, and where the greatest energy saving potential is. The review also identifies where DCC is currently in relation to public sector energy targets, and what areas need to be addressed in order to meet these targets between now and 2020. In Addition, this years energy review also looks at the new energy efficiency target of 50% energy efficiency improvement by 2030 and what the council has planned to achieve this. It also looks at the council's current situation relation to the absolute carbon reduction target of 40% by 2030.	Ongoing
E8	Display Energy Certificates for public buildings	10 years plus	Codema	Compliant with legislation	Energy Efficiency, GHG Reduction	In September 2020, Codema published 43 Display Energy Certificates for DCC buildings over 250m^2 and frequently visited by the public. The certs were sent to each facility with an information booklet about Display Energy Certificates and also what is needed in relation to energy savings to achieve the next energy rating.	Ongoing
ENERGY EFFICIENCY & RENEWABLES							
E9	Dublin District Heating System	In the next 5 years	Environment and Transport	# of buildings connected	Energy Efficiency, GHG Reduction	Preliminary design is currently being carried out on the district heating network, and some site investigation is being planned to inform this design. Detailed Design is being carried out for the 'Irish Glass Bottle' and 'Fabrizia' sites within the Poolbeg West Strategic Development Zone, to help ensure these sites are district heating ready.	Ongoing
E10	Identify sites for trialling renewable energy projects, including solar PV	In the next 5 years	Planning and Property Develoment	Properties identified, project plans	Energy Efficiency, GHG Reduction	The Development Plan Team have been engaging with staff and stakeholders to establish topics for issues papers that will inform the upcoming Development Plan process set to commence in December 2020. Codema has recommended sites for solar PV as part of the Climate Action Fund.	Ongoing
E11	Energy efficiency works in 30 Council owned and operated buildings	10 years plus	Housing Department	# of buildings upgraded	Energy Efficiency, GHG Reduction	Under SEAI BEC 2019 DCC Application included 29 Houses, 26 Sites ranging from Corporate and Communal Heating sites (including 7 Senior Citizens Complexes and 4 Homeless Hostels) to receive various upgrade works. All projects have been completed. Dublin City Council now nominated as a finalist for The 2020 SEAI Sustainable Energy Awards in The Public Sector – Energy Leadership Category	Ongoing

ENERGY & BUILDINGS

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
E12	Dublin Fire Brigade energy efficiency works	In the next 5 years	Dublin Fire Brigade	# of buildings upgraded	GHG	Not started	Not started
E13	Continue the Fabric Upgrade Programme of housing stock	10 years plus	Housing Department	Completion of 100 - 200 retrofits per annum, to C1 level	GHG	Approximately 70% of our housing stock has been upgraded under the Fabric Upgrade Programme. Phase I is completed with 8,057 units upgraded. We have commenced Phase II and 814 units have been upgraded to date. The average BER improvement from an F to a C3 for Phase I and an E2 to a C1 rating achieved on Phase II.	Ongoing
E14	Develop and implement Public Lighting Master Plan	5-10 years	Environment and Transport	% public lighting converted to LEDs	GHG	We are on track with LED replacement – 50% energy reduction as a result. No significant current projects – delays due to Covid. Main Project –framework is alive for 8 years so work will continue in due course. 3 bidders for stage 2 – to be brought to Tender. 8,000 retrofits were done in first contract. Progress will be slower hereafter. New lights are going in and there will be a computer managed system. There are British and European lighting standards which we have to adhere to but adjustments can be made outside of that. It is possible also to double the output of lights for short periods to use as pathfinders, e.g. to show the way to the Point. Output will be larger but will be intermittent so shouldn't have too much impact.	Ongoing
E15	Landlord lighting upgrades in 15 complexes across the City	5-10 years	Housing Department	# of lights retrofitted	GHG	Ongoing	Ongoing
E16	Facilitate EPC project in 7 leisure centres/ dry sports centres across Dublin City	In the next 5 years	Culture, Recreation and Economic Services	EPC project delivered	GHG	All contracts have entered service phase and monitoring of performance is ongoing as per the contracts to insure the performance is achieved	Ongoing
E17	Install PV panels on Council buildings in Dominick Street, North King Street, Cornamona Court	In the next 5 years	City Architects	PVs installed	GHG	Installation of panels included in three ongoing construction projects: O'Devaney Gardens (2020) Dominick St (2021) Cornamona (2021)	Ongoing
E18	New nZEB Super Depots	In the next 5 years	Transform-ation Unit	Completion of depots, # of depots merged into super depots	GHG	Not started	Not started
RESEARCH & INNOVATION							
E19	Develop proposal to use Docklands SDZ to test smart public lighting infrastructure	In the next 5 years	Smart Dublin	Proposal developed	GHG	This action is being reviewed in light of the Docklands Energy Group being dissolved. Smart Dublin, Codema, DCC and SEAI will continue to work collaboratively on energy projects.	Not started

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
E20	Expand and develop Small Business Innovation & Research (SBIR) programme	10 years plus	Smart Dublin	Energy and climate change challenges identified for yearly SBIR challenge	Energy Efficiency, GHG Reduction	This is ongoing	Ongoing
E21	Work with CARO on research and project proposals for grant funding	10 years plus	CARO, Codema	# of research projects initiated	Energy Efficiency, GHG Reduction	This is ongoing. Applications are being submitted to various funding streams.	Ongoing
E22	Develop an understanding of deep geothermal resources in Dublin though the GEO-URBAN Project	In the next 5 years	Environment and Transport	Report complete	Public Awareness	Work Package 2 Completed. Currently processing the Geophysical data from survey works to prepare a 3D model of the subsurface strata of the project area within Dublin City.	Ongoing
ENERGY AWARENESS							
E23	Continued staff energy awareness in Council buildings	10 years plus	Smart Dublin	# of staff participating in events and activities	Public Awareness	Staff survey coordinated by EMWR, Transport Dept, CARO and Codema on climate action during Covid-19. 1,318 survey responses from staff.	Ongoing
E24	Engage with students about energy and buildings through CPD Programme/ Engineers Week	10 years plus	Environment and Transport	# of students participating in events and activities	Public Awareness	CPD Development Committee in partnership with Engineers Ireland's 'Engineers Week 2020' in late February, early March, arranged for engineering staff to volunteer and give presentations/webinars in 12 local libraries and primary schools reaching over 540 school children. - Due to COVID this is on hold.	Ongoing
E25	Provide citizens with energy awareness material in public buildings	In the next 5 years	Smart Dublin	# of materials available in public buildings	Public Awareness	Project is being developed, supplier company has been identified. Climote is a company that installs smart heating controls that home owners can monitor through their phone and monitor their energy use.	Ongoing
E26	Provide City Council tenants with energy awareness materials at home, particularly at the time of taking up new tenancy	In the next 5 years	Housing Department	% tenants receiving information	Public Awareness	Tenant Manual provided by City Architects on occupation of new dwellings includes a section on Energy Awareness. Specification systems operations manual also provided. Both are written in 'plain English'.	Complete
E27	Monitor and develop the Home Energy Savings Kits in DCC's public libraries	10 years plus	Codema	# of kits borrowed	Public Awareness	42 new kits developed for Dublin City Council's Public Library branches, bringing to 109 the total number of kits available for public to borrow from the library network.	Ongoing

ENERGY & BUILDINGS

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
ACTIONS AWAITING BUDGET							
E28	*Develop research and funding opportunities for renewable and efficiency projects*	*10 years plus*	*Codema*	*Research and funding management group established*		*Codema in collaboration with the four Dublin Local Authorities submitted an application under the Horizon 2020 topic LC-SC3-B4E-13-2020: Aggregation - Project Development Assistance. The project proposal is title DeliveREE. DeliveREE will create an innovative project finance and delivery structure for EE projects in the Dublin region, across 4 local authorities, using various performance-based contracting structures. By creating a structured approach, DeliveREE will accelerate the formation of large-scale projects by standardising the project development process, allowing projects of various types and sizes to be aggregated to create scale. This enables the use of energy performance and energy supply contracts whose performance guarantees are both critical for achieving value for money and provide a mechanism for the involvement of private capital in public projects.*	Ongoing
E29	*Undertake programme of flat complex regenerations*	*10 years plus*	*City Architects*	*Complete 200 regenerated flats to nZEB standard each year from 2022*		*Ongoing*	Ongoing
E30	*The Dublin City Council Energy Review (2019 and going forward), will include a glide path illustrating the energy efficiency and GHG emission targets for the City Council up to and including 2030*	*In the next 5 years*	*Codema*	*Glide path included*		*The 2019 Energy Review included a glide path illustrating the energy efficiency and GHG emissions targets for the City up to and including 2030. All subsequent energy reviews will include this graph with up to date figures.*	Ongoing
E31	*Appendix II: Total Emissions in Dublin City of the CCAP will also be updated every two years in accordance with EU Covenant of Mayors for Climate & Energy protocol*	*In the next 5 years*	*Codema*	*Baseline updated*		*Total energy use and emissions will be updated every two years for Dublin City Council and every five years for Dublin City (in line with the publication of the Census results)*	Not started
E32	*The City Architects Division of Dublin City Council is committed to participating with the Irish Green Building Council and other European organisations in BUILD UPON 2**	*In the next 5 years*	*City Architects*	*Complete participation in project work packages*		*Project is ongoing. DCC Architects, Housing and Climate Action Team along with Codema and CARO are collecting data, and providing IGBC with feedback on framework being developed*	Ongoing

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
E33	*The City Architects Division of Dublin City Council is committed to participating with the RIAI, in particular the Sustainability Task Force, in seeking new and innovative approaches to climate action in the built environment*	*In the next 5 years*	*City Architects*	*# of meetings with task force*		*Ongoing, meetings are being attended by City Architects*	Ongoing
E34	*Identify sites for trialling renewable energy projects, in particular geothermal technologies*	*In the next 5 years*	*Environment and Transport*	*# of sites identified*		*In relation to the deep geothermal project 'Geothermica' identification of a site is ongoing*	Ongoing
E35	*The City Council will undertake a research study to investigate the Lifecycle Assessment of traditional and new construction methods for residential projects in Dublin, with a view to formulating initial recommendations by end 2019*	*In the next 5 years*	*City Architects*	*Publish research report*		*Project is ongoing*	Ongoing
E36	*In all building projects, new build or retrofit, Swift Bricks or other nesting sites for swifts will be provided where practicable. The presence of swift breeding sites will be identified to ensure that known breeding sites are not lost as a result of construction work*	*In the next 5 years*	*City Architects*	*# of nesting sites provided*		*This work is ongoing*	Ongoing
E37	*Develop maintenance and condition survey programmes for Council-owned historic and ancient monuments that are informed by climate change impacts*	*In the next 5 years*	*City Architects*	*# of surveys completed*		*Not started*	Not started
E38	*Conduct research and seek to develop City Council-based case studies on appropriate and sensitive retrofitting/energy upgrading of traditional buildings to inform works both to Council-owned properties and to guide private owners*	*In the next 5 years*	*City Architects*	*# of case studies developed*		*Not started*	Not started

TRANSPORT

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
ACTIONS CURRENTLY BUDGETED							
OPERATIONS							
T1	Develop strategy to convert fleet to low emission vehicles	In the next 5 years	Environment and Transport	Strategy produced	GHG	Strategy is in place and fleet is being converted.	Complete
T2	Pilot more electric vehicles within Council fleet	10 years plus	Environment and Transport	Report on pilot and plan for scaling up	GHG	We have 10 more EVs coming in. There is a review being done of the electrical infrastructure of DCC depots to see if the capacity is there to support EV charging. There are limitations due to capacity issues.	Ongoing
T3	Conduct detailed study of staff modal split	10 years plus	Environment and Transport	Yearly survey	GHG	The staff survey completed in July and was integrated with other surveys through the Transformation Unit.	Ongoing
T4	Promote Cycle-to-Work Scheme to DCC staff	10 years plus	Environment and Transport	# of staff availing of scheme	GHG,	The Bike to Work scheme is available to staff. The survey in T3 included questions regarding the bike to work scheme.	Ongoing
T5	Implement Smart Mobility Hub in Civic Offices	10 years plus	Smart Dublin	# of staff using hub	GHG	The staff mobility hub is in place in the Civic Offices and there are 120 staff prior to covid who have signed on. Since it began there have been of 1600 journeys booked. Phase 2 is progressing partners have been identified and new locations are being assessed.	Ongoing
T6	Carbon offset programme for staff flights	10 years plus	Environment and Transport	Tonnes of CO_2 offset	GHG	All Council business flights are offset using Voluntary Offset scheme by Vita Ireland.	Ongoing
T7	Occupational driver training for fleet staff	10 years plus	Fleet Management Services	# of staff trained	GHG,	765 DCC staff have received training	Ongoing
T8	Assess potential for using an e-mobile for real time air quality monitoring in the City Centre	In the next 5 years	Smart Dublin	Assessment report complete	,	Smart Dublin is currently discussing with suppliers the potential of e-mobile monitoring of air quality.	Ongoing
SUSTAINABLE TRANSPORT MEASURES							
T9	Implement the measures outlined in the *Dublin City Centre Transport Study 2016*	In the next 5 years	Environment and Transport	# of measures implemented	GHG	The COVID Mobility has the seen the implementation of a suite of measures in support of social distancing, and enabling people to move through the city via active modes of travel: Pedestrian Areas – Increase footpath widths; Pedestrian Signal Crossings and Waiting Times, contactless pushbuttons; Pedestrian Trials – Grafton Street Area; Protected Cycle Facilities, Contra-Flow Facilities & Cycle Parking installation; Filtered Permeability Trials; On-street Car Parking Spaces & Loading Bays removal / relocation; Queueing at bus stops – a number of trials underway; Proposed Reduction in Speed Limits to protect increased numbers of pedestrians, cyclists & vulnerable road users; Maintain access to existing car parks; Facilitate Queueing, Outdoor Areas / Outdoor Furniture; Business Liaison to optimise delivery of goods to retailers; Active Travel Promotion; Schools Mobility Programme.	Ongoing

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
T10	Implement traffic calming programme	In the next 5 years	Environment and Transport	# of traffic calming measures	GHG	COVID Mobility - as previous action	Ongoing
T11	Expand 30 km/h speed limit zones to all residential areas of the City	In the next 5 years	Environment and Transport	# of residential areas with 30 km/h speed limit	GHG	Public consultation on 30km zones was held in July and August 2020. Discussions are ongoing	Ongoing
T12	D30 public awareness campaign of speed limits in City	In the next 5 years	Environment and Transport	# of citizens engaged	GHG, Public Awareness	Campaign is ongoing	Ongoing
T13	Regular maintenance of regional and local roads	10 years plus	Environment and Transport	# of complaints regarding obstructions	GHG	During Q3 2020 (to the end of July) 424 defects and hazards on the road network were repaired and/or made safe.	Ongoing
T14	Rolling out last mile delivery eco hubs in the City Centre area	In the next 5 years	Environment and Transport	# of last mile delivery eco hubs established	GHG	DCC is working with a number of logistics providers interested in setting up delivery eco hubs. The Covid 19 crisis has affected this work, however it is anticipated that further progress will be made in establishing additional eco hubs before the end of 2020.	Ongoing
T15	Develop 'last mile' delivery solutions, as part of SBIR challenge	In the next 5 years	Environment and Transport	# of solutions trialled	GHG	Merged with action T14	Ongoing
T16	Phase I Pedestrian Zones (2016-2022): - Liffey Street - Mary Street - Talbot Street - Castle Street/Cork Hill - Barnardo's Square - Temple Bar Public Realm	In the next 5 years	Environment and Transport	Schemes completed	GHG	Sites at various stages and progressing	Ongoing
T17	Phase II Pedestrian Zones (2023-2028): - Dame Street West - Lord Edward Street - Parnell Street - O'Connell Bridge - D'Olier Street - Lombard Street - Westland Row - Nassau Street - Aungier Street/ Valentine District - Merrion Square - Pearse Street - North Lotts - North Quays	5-10 years	Environment and Transport	Schemes completed	GHG	Not started	Not started
T18	Phase III Pedestrian Zones (2029 and beyond): - South Quays - Tara Street - Parkgate Street	10 years plus	Environment and Transport	Schemes completed	GHG	Not started	Not started

TRANSPORT

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
T19	To investigate the introduction of traffic-free areas on sections of: Drury Street, South William Street, Exchequer Court, Dame Court, Dame Lane, retaining access for car parks and deliveries	10 years plus	Environment and Transport	Investigation complete	GHG	See Covid Mobility Plan - COVID has permitted the trialing of traffic free days which were well received by the public	Ongoing
T20	World Car Free Day	10 years plus	Environment and Transport	Promotion of EU event		Due to COVID promotion of event was via social media channels	Ongoing
T21	European Mobility Week	10 years plus	Environment and Transport	Promotion of events		Due to COVID promotion of event was via social media channels; Key staff participated in webinars hosted by Dublin Cycling Campaign. Junior Bicycle Mayor was involved in an short film 8 reasons to bike. During this week Dublin Cycling Buddy app was soft launched and promoted through virtual cycles.	Ongoing
T22	DCC to liaise with NTA on BusConnects programme	10 years plus	Environment and Transport	# of meetings	GHG	Meetings with Dublin Bus are ongoing	Ongoing
T23	2 EV charging point trials in the Docklands	In the next 5 years	Environment and Transport	2 charging points installed	GHG	To be commissioned post COVID. This assessment will also be considered within the wider Regional EV strategy to be published at the end of 2020.	Post-poned
T24	Assessment of Council public car parks for trickle and rapid charge EV points	In the next 5 years	Environment and Transport	Assessment complete	GHG	This assessment will be considered within the wider Regional EV strategy to be published at the end of 2020.	Ongoing
INFRASTRUCTURE & BEHAVIOUR CHANGE							
T25	Organise Pedestrian Days in areas with high footfall	In the next 5 years	Environment and Transport	# of pedestrian days held	GHG	As part of COVID Mobility Plan during the summer 6 weekends saw the pedestrianisation of streets within the city centre.	Ongoing
T26	Set up partnership and create a communications engagement and promotion platform	In the next 5 years	Environment and Transport	# of communities / areas involved	GHG	Dublin City Council has established a partnership for a Promotions Group with TCD Healthy Trinity, Green Schools, NTA Active Travel, and TU Dublin. This group will meet every three to four months.	Ongoing
T27	Develop cycle action plan: 471 km of possible network	In the next 5 years	Environment and Transport	Plan completed	GHG	Impacted by COVID on hold until 2021	Ongoing
T28	Dodder Greenway (Pedestrian and Cycle Improvement) - 7.5 km section	In the next 5 years	Environment and Transport	Planning application approved	GHG	Design options have been completed and are to be reviewed by the NTA	Ongoing
T29	2.7 km Clontarf-to-City Centre Cycle Scheme	In the next 5 years	Environment and Transport	Scheme completed	GHG	Design completed, and subject to approval of NTA and DCC, project will be sent to tender for construction	Ongoing
T30	Liffey Cycle Route (6.8 km)	5-10 years	Environment and Transport	Scheme complete	GHG	Ongoing - through COVID Mobility Plan the Interim Liffey Cycle Route was completed at the end of July. Preliminary studies are underway for the permanent scheme. This includes preliminary assessments of the Quay walls as well an Opportunities and Needs Assessment of the Route.	Ongoing

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
T31	Fitzwilliam Cycle Route - 1 km route with upgrades for junctions	5-10 years	Environment and Transport	Scheme complete	GHG	It is anticipated that the construction tender will issue in Q4 2020. An interim scheme will be implemented in the short term under the COVID-19 plan.	Ongoing
T32	Sandyford-to-City Centre Cycle Scheme - proposal and options for 9 km route	5-10 years	Environment and Transport	Report completed	GHG	The Options Selection Report was completed in May 2020.	Ongoing
T33	Royal Canal Phase 3 - 7.5 km two-way cycle track with pedestrian route	5-10 years	Environment and Transport	Scheme complete	GHG	Ongoing	Ongoing
T34	East Coast Trail (10.8 km in DCC area)	5-10 years	Environment and Transport	Feasibility study completed	GHG	Consideration is now being given to developing an interim scheme from Sean Moore Park to Merrion Gates to avoid impacts on the designated areas.	Ongoing
T35	Pedestrian and cycle bridges: - Pedestrian and cycle bridges for Blood Stoney - Pedestrian and cycle bridges for the Point -Dodder PT Bridge	10 years plus	Environment and Transport	Planning permission submitted	GHG	Plan to submit for planning towards the end of 2020/beginning 2021; The appointment of design consultants for the Point Pedestrian & Cycling Bridge is due to go to tender shortly; Plan to submit for planning towards the end of 2020/beginning 2021. Preliminary design is near completion. Ground Investigation works are complete. Land acquisitions and Land Owner agreements are being progressed. Traffic modelling required for the Business Case is progressing. Staff are currently working remotely to progress projects	Ongoing
T36	Cycle Training Programmes for 6th Class students / Pedal Power Labs	10 years plus	Environment and Transport	# of students participating	GHG, Public Awareness	COVID impacted	Ongoing
T37	Feasibility of emissions-linked parking charges in City Centre	In next 5 years	Environment and Transport	# of parking spaces	GHG	Awaiting outcome of Action 81 in National Climate Action Plan. DCC and CARO on steering group of DTTAS Demand Management 5 Cities project which includes emission based measures. Final report due out before end of year	Not started
T38	Increase number of public bike parking facilities	10 years plus	Environment and Transport	# of parking spaces added (2,000 by 2019, 20,000 by 2030)	GHG	In 2019, a total of 1,954 cycle parking spaces were added. In 2020 a contract has been awarded for the installation of 500 parking spaces. It is envisaged that a contract for a further 1,000 spaces will have been awarded by end August 2020. The target for 2020 is 2,000 spaces.	Ongoing
T39	Expand Stationless Bike scheme and add ebikes	In next 5 years	Environment and Transport	# of bikes available (1,150 by end of 2019)	GHG	Moby introduced - 2nd operator Moby commenced public e-bike hire in June 2020 500 bikes currently available. Balance allocated to healthcare workers for Covid period	Ongoing
T40	Expand dublinbikes scheme	In next 5 years	Environment and Transport	# of dublinbikes, # of locations	GHG	No stations have been added	Ongoing
T41	Implement policy to increase modal shift to cycling	In next 5 years	Environment and Transport	# of additional cycle lanes provided, # of cordon count results	GHG	See COVID Mobility Plan - Initial target to provide 10km of protected cycle lanes in 2020 has been increased in line with COVID-19 mobility interventions. To date new and protected cycle lanes have been installed on Parkgate Street, Nassau Street and Bridgefoot Street.	Ongoing
T42	DCC to host Velo City 2019	In next 5 years	Environment and Transport	Event hosted	Public Awareness	VeloCity was hosted in June 2019	Complete

TRANSPORT

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
T43	Install pilot Electric Vehicle charging station at John Rogerson's Quay	In next 5 years	Environment and Transport	EV charge point installed	GHG,	See T23 - will be informed by Regional EV Strategy and Government Guidance on Evs	Ongoing
T44	Assessment of Rediscovery Centre car park in Ballymun for trickle or rapid electric vehicle charging station	In next 5 years	Environment and Transport	EV charge point installed	GHG,	This assessment will be considered within the wider Regional EV strategy to be published at the end of 2020	Ongoing
T45	Samuel Beckett Bridge segregated cycle lane	In next 5 years	Environment and Transport	Segregated lane complete	GHG	Project completed	Complete
T46	DCC aspires to be a Future Cycling City	10 years plus	Environment and Transport	# of collaborations	GHG,	Through the COVID Mobility Plan DCC is encouraging active modes of travel	Ongoing
T47	DCC will continue to seek new and expand on existing partnerships to encourage sustainable travel and safer travel behaviours	10 years plus	Environment and Transport	# of partnerships	GHG,	Dublin City Council has established a partnership for a Promotions Group with TCD Healthy Trinity, Green Schools, NTA Active Travel, and TU Dublin. This group will meet every three to four months.	Ongoing
T48	DCC will engage with local communities to develop a vision for the future of their neighbourhoods with a strong focus on local living, sustainable mobility and quality of life	10 years plus	Environment and Transport	# of engagements		Phase 1 on engagement strategy has commenced as is currently internally focused. Phase 2 will commence in 2021.	Ongoing
T49	East Coast Trail (10.8 km in DCC area)	In next 5 years	Environment and Transport	Trail complete	GHG	Changed to action T34	Ongoing
PUBLIC TRANSPORT							
T50	Sustainable transport hubs – various locations	5-10 years	Environment and Transport	# of hubs	GHG	Currently in discussions with the NTA	Ongoing
T51	Support the development of bus routes including the Bus Connects programme	10 years plus	Environment and Transport	Frequency of services	GHG	Ongoing	Ongoing
T52	Carry out Canal Cordon Count	10 years plus	Environment and Transport	Annual report complete	GHG	Completed annually	Ongoing
T53	Implement policy to increase modal shift to public transport	10 years plus	Environment and Transport	# passengers as % of modal share, # of cordon count results	GHG	Ongoing	Ongoing
T54	Implement policy to give bus priority on core bus network	In the next 5 years	Environment and Transport	# of bus priority junction interventions	GHG	Impacted by COVID	Ongoing
ACTIONS AWAITING BUDGET							
T55	*Develop a strategy to promote car sharing*	*In the next 5 years*	*Environment and Transport*	*Strategy document developed*	GHG,	*Research has been commissioned to investigate barriers and opportunities of car sharing in the city.*	Ongoing

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
T56	*The Council will undertake an assessment of the number of existing and potential future electric vehicle charge points in its jurisdiction and expand the availability*	*In the next 5 years*	*Environment and Transport*	*Study complete*	Resilience, Public Awareness	*Ongoing - four DLAs have commissioned consultant to complete a report on the potential of EVCP. This has been funded by Smart Dublin and CARO.*	Ongoing
T57	*Replace diesel hand sweepers/ power washers with electric models*	*In the next 5 years*	*Waste Services*	*% reduction*	GHG	*Power washers have been replaced in Davitt Rd and Slaney Rd Depots with Electric Models and a further unit is due to be replaced in O'Rahilly Pde depot. This is a total of 6 units Approx 40% of total number of units. The handvacs are provided on a 3 year contract entered into in 2019 so cannot be replaced until that expires.*	Ongoing
T58	*Dublin City Council to promote Mobility-as-a-Service (MaaS) initiatives in the City to increase active travel options*	10 years plus	*Environment and Transport*	*Number of Initiatives in place; number of service providers participating in improving mobility options*	GHG, Public Awareness	*Smart Dublin commenced a project to explore how Dublin might implement a MaaS initiative across the region with funding from the Public Sector Innovation Fund. A report produced based on desktop research and workshops with key stakeholders, calls for the establishment of a stakeholder forum to progress the topic, which based on recent conversation with the NTA, will be led by the NTA. DCC, Smart Dublin, and CARO will be part of that forum.*	Ongoing
T59	*Create a baseline of sustainable urban mobility for Dublin in line with EC indicators*	*In the next 5 years*	*Environment and Transport*	*Baseline complete*	GHG, Public Awareness	*The calculation of Sustainable Urban Mobility Indicators has been completed. We are now awaiting the Benchmarking from EC. This will provide a baseline for preparing and evaluating a Mobility Plan for the City.*	Ongoing
T60	*INTERREG Building an Ecosystem to Generate Opportunities in Open Data (BE GOOD) project to promote the safe wellbeing of the City and improvements in public transport services*	*In the next 5 years*	*Environment and Transport*	*Project complete*	GHG, Public Awareness	*As part of the European funded BE-GOOD project, the HGV permit checker has been developed*	Ongoing
T61	*DCC is working in partnership with the EPA on expanding and enhancing ambient air quality monitoring in Dublin in accordance with the National Ambient Air Monitoring Programme*	*In the next 5 years*	*Environment and Transport*	*Monitoring expanded*	Resilience, Public Awareness	*Number of sensors have increased in the City. DCC launched its air quality and noise monitoring website, where citizens can monitor in real time pollution levels in the city www.dublincityairandnoise.ie*	Ongoing
T62	*DCC is exploring the feasibly of carrying out an air quality status study in Dublin Port*	*In the next 5 years*	*Environment and Transport*	*Study complete*	Resilience, Public Awareness	*Project work ongoing*	Ongoing

FLOOD RESILIENCE

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
ACTIONS CURRENTLY BUDGETED							
FLOOD RISK MANAGEMENT							
F1	Implement flood risk management guidelines	10 years plus	Environment and Transport	# of projects following guidelines		Ongoing	Ongoing
F2	Coordinate Emergency Response Plans	10 years plus	Environment and Transport	Plans completed		Plans developed, ongoing	Ongoing
F3	Implement flood awareness campaign with the OPW	10 years plus	Environment and Transport	Campaign implemented		DCC continues to work with OPW to engage the public on flood awareness via floodinfo.ie and flooding.ie	Ongoing
F4	Monitoring of flood forecasting and warning system	10 years plus	Environment and Transport	System maintained		Ongoing	Ongoing
F5	Produce a new Design Guide for SuDS and green infrastructure	10 years plus	Culture, Recreation and Economic Services; Environment and Transport	Guide developed		Consultants appointed, please see action N3.	Ongoing
F6	Implement Sustainable urban Drainage Guidelines in Council buildings where feasible	In the next 5 years	Environment and Transport	# of buildings with SuDS measures implemented		Ongoing, identifying sites and will be informed by the guidelines.	Ongoing
F7	Build demonstration sites to show options for SuDS	In the next 5 years	Environment and Transport	# of demonstration sites developed		Tender completed	Ongoing
F8	Establish a Dublin Bay Sentinel Group, led by DCC and including other key stakeholders, to monitor tide levels and other marine related flood risk issues in Dublin Bay	In the next 5 years	Multi-departmental	Group established, medium and long term action plan developed		Consultants appointed	Ongoing
F9	Develop and implement Coastal Zone Management plan for Dublin Bay, aligned with the four DLA Climate Change Action Plans for Dublin and other local authority plans and strategies	In the next 5 years	Culture, Recreation and Economic Services; Environment and Transport	Plan developed		Establishing stakeholders	Ongoing
F10	Implement the Dublin Bay Biosphere work programme	10 years plus	Culture, Recreation and Economic Services	Work programme developed and implemented		Ongoing, a website has been launched to inform citizens about the biosphere, what it is and how they can get involved: www.dublinbaybiosphere.ie	Ongoing
The following flood storage actions will incorporate nature-based solutions and biodiversity enhancement measures where possible (Actions 11 to 18):							
F11	Trial hemp baskets for flood protection	In the next 5 years	Culture, Recreation and Economic Services; Environment and Transport	Trials implemented, report on findings		Delayed due to COVID 19	Ongoing

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
F12	Identify areas for integrated constructed wetlands	10 years plus	Culture, Recreation and Economic Services	Areas identified and report published		Ongoing	Ongoing
F13	Expansion of rainfall sensors and weather stations, as part of the Connect Flooding Demonstrator programme	In the next 5 years	Environment and Transport	# of sensors installed, # of weather stations added		Service Provider appointed	Ongoing
F14	Phase 2 of Gully Monitoring SBIR Challenge	In the next 5 years	Environment and Transport	# of solutions developed and implemented		Sensors are expected to be installed this quarter	Ongoing
F15	Develop a climate change impact GIS risk map with scenarios for the Dublin Region	In the next 5 years	Climate Ireland, CARO, Environment and Transportation, multidepartmental	GIS map developed		To support local authorities and sectors in performing risk assessments, Climate Ireland in collaboration with the CAROs propose the development of a Risk Identification and Assessment Tool. This tool is envisioned to be an online portal allowing users to access, view, and interrogate the pertinent spatial datasets and within a risk assessment framework. This proposal has not been given formal approval at the time of writing of this progress report	Not started
F16	Develop template to capture impacts, response and costs (including consideration of ecosystem services/natural capital costs) for all major climate events	10 years plus	Environment and Transport	Template developed and issued		Ongoing	Ongoing
F17	Establish a Working Group to deal with the issue of pluvial flood risk	10 years plus	Environment and Transport	Working group established		Working Group monitoring pluvial flood events and best practice	Ongoing
F18	Update DLA urban drainage and flooding policies promoting natural flood measures as a priority to inform new development plan	In the next 5 years	Environment and Transport	Policies updated		Internal meetings ongoing	Ongoing
F19	Risk workshops to assess the likely impacts on Council services	In the next 5 years	Environment and Transport	Risks identified		Delayed due to COVID 19	Ongoing
FLOOD DEFENCE							
F20	South Campshires Flood Defence	10 years plus	Environment and Transport; Culture, Recreation and Economic Services	Project completed		Sealing of drainage outlets out to tender.	Ongoing
F21	Sir John Rogerson's Quay flood alleviation scheme	In the next 5 years	Environment and Transport; Culture, Recreation and Economic Services	Project completed		Delayed due to COVID 19	Ongoing

FLOOD RESILIENCE

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
F22	North Campshires flood alleviation scheme	5-10 years	Environment and Transport; Culture, Recreation and Economic Services	Project completed		Delayed due to COVID 19	Ongoing
F23	Clanmoyle flood alleviation scheme	10 years plus	Environment and Transport; Culture, Recreation and Economic Services	Project completed		Completed	Complete
F24	Wad flood alleviation scheme	In the next 5 years	Environment and Transport; Culture, Recreation and Economic Services	Project completed		Preferred Tenderer	Ongoing
F25	Poddle flood alleviation scheme	In the next 5 years	Environment and Transport; Culture, Recreation and Economic Services	Project completed		25 submissions received from An Bord Pleanala, currently reviewing; http://www.poddlefas.ie/news	Ongoing
F26	Camac flood alleviation scheme	In the next 5 years	Environment and Transport; Culture, Recreation and Economic Services	Project completed		Environmental surveys underway; https://www.camacfas.ie/news/	Ongoing
F27	Dollymount flood alleviation scheme	10 years plus	Environment and Transport; Culture, Recreation and Economic Services	Project completed		Completed	Complete
F28	Clontarf Promenade flood alleviation scheme	In the next 5 years	Environment and Transport; Culture, Recreation and Economic Services	Project completed		Delayed due to COVID 19	Ongoing
F29	Sandymount Promenade flood alleviation scheme	10 years plus	Environment and Transport; Culture, Recreation and Economic Services	Project completed		Delayed due to COVID 19	Ongoing
F30	Sandymount Phase 2 flood alleviation scheme	In the next 5 years	Environment and Transport; Culture, Recreation and Economic Services	Project completed		Delayed due to COVID 19	Ongoing
F31	Chapelizod flood alleviation scheme	In the next 5 years	Environment and Transport; Culture, Recreation and Economic Services	Project completed		Postponed	Post-poned
F32	Island Bridge flood alleviation scheme	In the next 5 years	Environment and Transport; Culture, Recreation and Economic Services	Project completed		Project completed	Complete

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
F33	Santry River Regeneration Project	5-10 years	Environment and Transport; Culture, Recreation and Economic Services	Project completed		Out to tender	Ongoing
F34	River Dodder flood defence works in the fluvial section upstream of Ballsbridge	10 years plus	Environment and Transport; Culture, Recreation and Economic Services	Project completed		Construction ongoing	Ongoing
ACTIONS AWAITING BUDGET							
F35	*Study impacts and benefits of increased buffer distances to watercourses*	*In the next 5 years*	*Environment and Transport; Culture, Recreation and Economic Services*	*Study completed*		*River Camac as Pilot; discussion on including in draft development plan*	Ongoing
F36	*Promote and encourage community involvement in the retrofit of SuDS in existing developments*	*In the next 5 years*	*Environment and Transport; Culture, Recreation and Economic Services*	*# of communities involved*		*This work is ongoing*	Ongoing
F37	*Survey possibly by drone / satellites of paved areas of the City*	*10 years plus*	*Environment and Transport*	*# of surveys*		*Some pilot areas identified*	Ongoing
F38	*Environmental surveys of all City rivers and estuaries as baseline surveys*	*In the next 5 years*	*Environment and Transport*	*Surveys completed*		*Baseline studies for 2019 completed*	Ongoing
F39	*Increase funding for gully cleaning in the city*	*10 years plus*	*Environment and Transport*	*# of gullies cleaned*		*Not applicable*	Complete
F40	*The Council will work with the Local Authority Waters Programme in its support of communities and stakeholders in the delivery of local water quality projects and initiatives*	*10 years plus*	*Environment and Transport*	*# of projects delivered*		*Close co-operation in City and County*	Ongoing
F41	*Communication and awareness campaigns on flood risk management and natural flood management measures*	*In the next 5 years*	*Environment and Transport*	*# of campaigns*		*Website and other communication methods*	Ongoing

NATURE-BASED SOLUTIONS

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
ACTIONS CURRENTLY BUDGETED							
OPERATIONS							
N1	Establish regional working group on nature-based solutions	10 years plus	Culture, Recreation and Economic Services; Environment and Transport	Working group established		Group has been set up	Ongoing
N2	Agree joint action plans to protect native habitats and species across all 4 DLAs		Culture, Recreation and Economic Services	Action plans agreed		This action is to be removed as it is coordinated at the national level through NPWS	Action removed
N3	Establish a cross-departmental Trees and SuDS Working Group to promote and pilot water sensitive urban design incorporating urban tree planting	10 years plus	Culture, Recreation and Economic Services; Environment and Transport	Working group established		Consultants have been appointed for this work. This action is also being merged with action 4, as action 4 will be an outcome of this work	Ongoing
N4	Workshop on trees and SuDS		Culture, Recreation and Economic Services; Environment and Transport	Workshops held, report of outcomes		Consultants have been appointed for this work. This action is also being merged with action 3, as action 3 will be an outcome of this work	Action merged with N3
N5	Produce regional river basin management guidelines. Use Santry River as demonstration		Environment and Transport	Guidelines produced		Moving this action to flood resilience	Action moved
N6	Facilitate an annual workshop for information exchange between biodiversity experts	10 years plus	Culture, Recreation and Economic Services	Workshop organised		Virtual engagement and one-to-ones planned for towards end of year due to COVID. This as part of biodiversty plan review	Ongoing
N7	Collect data to inform the preparation of a list of habitats and species in Dublin City vulnerable to climate change. Devise measures for reducing risks to these habitats and species locally and implement and evaluate their effectiveness		Culture, Recreation and Economic Services	Data compiled		Action removed - Responsibility for this lies with NPWS and identification of vulnerable sites should be in the sectoral adaptation plan, as such DCC should respond to this based on advice from NPWS and collaborate accordingly.	Action removed
GREEN INFRASTRUCTURE							
N8	Develop Green Infrastructure Strategy for region	10 years plus	Culture, Recreation and Economic Services	Strategy completed		Regional group will be looking at best practice that will inform this; Development Plan team are incorporating into development Plan	Ongoing
N9	Implement Public Open Space and Parks Strategy	10 years plus	Culture, Recreation and Economic Services	Strategy completed		Bridgefoot Street park is under construction; Deficit of green space huge Capital programme; Extra play grounds in areas where their; end of the year report coming in Q4 for this, as work is on going throughout the year.	Ongoing

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
N10	Map access to green space in City to identify areas of need	In the next 5 years	Culture, Recreation and Economic Services	Spaces mapped, areas identified		This has been completed and the work is informing the greening strategies for Liberties, Stoneybatter, NEIC.	Complete
N11	Continued support of the greenways concept for: Dublin Bay, Dodder, Santry, Liffey, Tolka and Camac	10 years plus	Culture, Recreation and Economic Services; Environment and Transport	Greenway completed, any habitats remediated	GHG	Ongoing collaboration across departments to insure inclusiong of NBS in cycle ways.	Ongoing
N12	Assess the potential of green walls	10 years plus	Culture, Recreation and Economic Services	Report complete		Currently identifying a location for feasibility	Ongoing
TREE MANAGEMENT							
N13	Implement *Dublin City Tree Strategy*	10 years plus	Culture, Recreation and Economic Services	Completion of guide		End of year report	Ongoing
N14	Continue to map and collect data on trees in Dublin City		Culture, Recreation and Economic Services	Data mapped and collected		Merge with action 13 as is an outcome of guide	Action merged with N13
N15	Promote and expand Native Tree Trails programme	10 years plus	Culture, Recreation and Economic Services	# of tree trails		End of year report	Ongoing
N16	Produce guidance on species of public trees for urban planting in accordance with Action 3.1 of the *Dublin City Tree Strategy*	10 years plus	Culture, Recreation and Economic Services	Guide produced		End of year report, Curio has been launched and DCC is engaging with citizens to map trees and their health status.	Ongoing
N17	Tree-planting activities with schools including annual National Tree Week and National Tree Day	10 years plus	Culture, Recreation and Economic Services	# of trees planted	GHG	Activities completed for 2020 and will be detailed in end of year report; Currently determining the format for 2021 in light of COVID	Ongoing
N18	Investigate the use of the DAFM NeighbourWood Planting scheme for use in suitable urban area as part of the DCC Tree Strategy		Culture, Recreation and Economic Services	Report complete		This action is to be removed, as DCC does not have space within the city for woodlands. Climate Action Team will be exploring alternatives.	Action removed
N19	Analyse climate change impacts on City's trees to inform management		Culture, Recreation and Economic Services	Report complete		This part of the Biodiversity Plan, do not have the resources to do this (also Action 41 in our sheet)	
NATURE CONSERVATION							
N20	Implement *Dublin City Council Invasive Alien Species Action Plan*	10 years plus	Culture, Recreation and Economic Services	Plan completed and reviewed, any eradications achieved		End of year report	Ongoing

NATURE-BASED SOLUTIONS

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
N21	Promote international World Wetlands Day	10 years plus	Culture, Recreation and Economic Services	Event organised		Activities completed for 2020 and will be detailed in end of year report; Currently determining the format for 2021 in light of COVID	Ongoing
N22	Provide data to RAMSAR Committee for Ireland on wetlands in Dublin City		Culture, Recreation and Economic Services	Data submitted		Remove - Not an action as it is sharing information	Action removed
N23	Prepare and publish *Flora of Bull Island*	10 years plus	Culture, Recreation and Economic Services	Book published		Work is continuing with the Dublin Naturalist Field Club	Ongoing
N24	Conduct a common cord-grass management study and monitoring for North Bull Island SPA	In the next 5 years	Culture, Recreation and Economic Services	Study conducted		To be commenced	Not started
N25	Prepare a GIS-based ecological sensitivity map of Dublin Bay Biosphere			Map complete		Links to Action N7 and, as per comment in N7, it would be related to National Biodiversity Adaptation Plan	
N26	Participate in the INTERREG-funded Acclimatize research project	In the next 5 years	Culture, Recreation and Economic Services	Project complete		To be commenced	Not started
N27	Conduct light-bellied brent goose roost survey	10 years plus	Culture, Recreation and Economic Services	Survey complete		Research is being undertaken by the University of Exeter	Ongoing
N28	Implement the North Bull Island Management Plan	10 years plus	Culture, Recreation and Economic Services	Plan implemented		Published an action plan setting up an oversight forum with community groups	Ongoing
ACTIONS AWAITING BUDGET							
N29	*Pilot projects for green roofs on civic buildings*	*10 years plus*	*City Architects*	*# of pilots*	GHG	*This is part of a green housing strategy being developed, but also potentially linked to CAF application to assess contribution of green roofs to energy efficiency gains. Currently engaging with staff to identify a suitable site*	Ongoing
N30	*Develop demonstration sites to showcase nature-based solutions with existing land uses*		*Culture, Recreation and Economic Services*	*# of sites developed*		*Remove, the action is being changed to the indicator for the working group as this will be an output of their work*	Action removed
N31	*Implement the North East Inner City and Liberties Greening Strategy*	*10 years plus*	*Culture, Recreation and Economic Services*	*Strategy implemented*	GHG	*Ongoing*	Ongoing

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
N32	*Develop urban woodland strategy as part of the DCC Tree Strategy*		*Culture, Recreation and Economic Services*	*Strategy developed*		*Remove - Repeat of Action 18, which is not achieveable in the Dublin context*	Action removed
N33	*Implement GI guidelines in all new Council housing developments and where possible social housing that is being retrofitted*	*10 years plus*	*Housing Department*	*# of trees per new dwelling, # of shrubs per new dwelling*	GHG	*A partnership with the Housing Agency is being explored to implement this. At present, we are identifying suitable DCC owned Social Housing for the project.*	Ongoing
N34	*Assess feasibility of additional green space for local food production, including community gardens and urban orchards*	*In the next 5 years*	*Planning Department*	*Feasibility report*		*The Development Plan Team have been engaging with staff and stakeholders to establish topics for issues papers that will inform the upcoming Development Plan process set to commence in December 2020.*	Not started
N35	*Produce A Guide to Sustainable Living in Dublin City*	*In the next 5 years*	*Culture, Recreation and Economic Services*	*Guide produced and available in libraries*		*Action has not commenced yet*	Not started
N36	*Identify sites suitable for community gardens for local food production*		*Waste Management / Planning*	*# of sites identified*		*Merging with Action 33 as the same*	Action merged with N33
N37	*Assessment of causes and impacts of Ectocarpus brown algal growth in Dublin Bay*		*Culture, Recreation and Economic Services*	*Assessment complete and actions developed*		*Action to be removed as this is a seasonal occurrence*	Action removed
N38	*Prepare a preliminary list of species and habitats vulnerable to climate change for informing environmental impact assessments*		*Culture, Recreation and Economic Services*	*List prepared*		*Remove as per action 7*	Action removed
N39	*Prepare an analysis of soil sealing in Dublin City to determine levels of permeability*	*In the next 5 years*	*Culture, Recreation and Economic Services*	*Analysis done*		*Not started*	Not started
N40	*Engage with business community to develop sustainable business initiatives for Dublin Bay UNESCO Biosphere Business Strategy*		*Culture, Recreation and Economic Services*	*# of initiatives developed*		*This part of the Biodiversity plan, do not have the resources to do this*	Action removed
N41	*DCC will continue as a partner in the Pollinator Plan for the duration of the Climate Change Action Plan and will monitor results over time*		*Culture, Recreation and Economic Services*	*Continuation of partnership*		*This part of the Biodiversity plan*	Action removed

RESOURCE MANAGEMENT

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
ACTIONS CURRENTLY BUDGETED							
WASTE MANAGEMENT							
R1	Monitor and enforce waste regulation	10 years plus	WERLA and Waste Regulation	Environmental Performance Assessment from EPA	GHG	We are on track with out Waste Targets as set out in the RMCEI Plan for 2020 for Q2	Ongoing
R2	Assess waste in Council buildings and plan actions	10 years plus	Waste Management Services	Assessment completed	GHG	Impacted by COVID	Ongoing
R3	Run staff recycling awareness campaign	10 years plus	Waste Management Services	% of staff recycling	GHG,	Plan to roll out staff awareness currently underway, socially distant methods of delivery being investigated	Ongoing
R4	Identify areas in need of civic amenity sites and waste transfer stations	10 years plus	EMWR	Report published	GHG	At final draft stage and early Q4 will see report published.	Ongoing
R5	Apply for LAPN (Local Authority Prevention Network) grants	10 years plus	Waste Management Services	# of grants for waste-related projects applied for	GHG	Funding for two projects was applied for in partnership with Rediscovery Centre and a number of LAs. Project 1 involved Wicklow, Meath, Fingal, South Dublin and DCC working with the Rediscovery Centre to develop a number of local collection points for the Rediscover Paint programme and a related promotional campaign. Project 2 was a joint application in South Dublin and Dublin City, once again working with Rediscovery Centre to develop a series of high profile events to inform and educate the public on reuse and repair. Both 2020 funding applications were unsuccessful. We are currently investigating alternative ways to develop/fund similar projects.	Ongoing
R6	Create Stop Food Waste campaign for businesses and schools	10 years plus	Waste Management Services / EMWR	Campaign developed and implemented	GHG,	Impacted by COVID	Ongoing
R7	Promote Reuse Month annually	10 years plus	Waste Management Services / EMWR	# of promotional activities	GHG,	The Relove Fashion competition, which is a reuse competition for secondary schools, will coincide with reuse month 2020. Students will have until the 30th October to submit their entries to the competition.	Ongoing
R8	Promote programmes to advise businesses on reducing waste e.g €coMerit	10 years plus	Local Enterprise Office / EMWR	# of businesses participating	GHG,	Modos programme in place to promote circular economy measures in business / 3 regional waste offices developing commercial waste reduction campaign particularly focused on food retail	Ongoing
R9	Promote recycling and the circular economy to householders through a range of workshops, talks and programmes	10 years plus	Waste Management Services / EMWR	# of workshops and attendees	GHG,	Workshops currently suspended due to social distancing restrictions. New methods of delivering Housing Waste Project workshops being investigated.	Ongoing
R10	Continue to work with the Rediscovery Centre to promote sustainability	10 years plus	Waste Management Services	# of collaborations	,	Currently partnering with The Rediscovery Centre on the Relove Fashion Competition for secondary schools. Paint reuse scheme established in DCC Bring Centres.	Ongoing

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
R11	Research and implement sustainable procurement guidelines	In the next 5 years	Waste Management Services	Research complete, findings implemented	GHG, Energy Efficiency, Resilience	Research is complete. Drafting of quick guide to green procurement for DCC staff is in progress. These will accord with EPA guidance	Ongoing
LITTER & RECYCLING IN THE PUBLIC REALM							
R12	Run anti-dumping and anti-litter campaigns	10 years plus	Waste Management Services	# of campaigns	Resilience, Public Awareness	Impacted by COVID after initial roll out in March	Ongoing
R13	Support and promote litter clean up days and initiatives	10 years plus	Waste Management Services	# of days	Public Awareness	Dublin Community Clean-up day and National Spring Clean did not take place this year due to COVID 19 Restrictions. Support for local community clean ups where social distancing measures and Covid 19 guidelines adhered to is ongoing. Over 2000 community clean up service requests completed in 2020 to date.	Ongoing
R14	Solar Compactor Bins provided in City	In the next 5 years	Waste Management Services	# of smart bins added, reduction in waste collections	GHG	Currently over 300 units installed. Additional 10 units due to be installed in area surrounding botanic gardens. Recycling units due to be trialled as part of Circle City project. Data Dashboard being developed to assess efficiencies and use of bins.	Ongoing
R15	Mapping and tagging of City bins	10 years plus	Waste Management Services	# of bins tagged and mapped	GHG, Public Awareness	All 3200 plus bins tagged and service is operating well with good participation from public engaging with QR code system. Examining extending project to recycling banks.	Ongoing
R16	Identify areas in need of recycling infrastructure	In the next 5 years	Waste Management Services	Areas of need identified	GHG	Mapping of existing recycling infrastructure underway. Gap analysis to take place once complete.	Ongoing
R17	Develop pilot projects for recycling	10 years plus	Waste Management Services	Pilots developed	GHG	On street recycling campaign implementation delayed due to Covid 19 - provisional launch now mid Oct 2020.	Ongoing
R18	Engage with relevant stakeholders and deliver an energy efficiency, circular economy and sustainability training programme targeting micro and small enterprises	In the next 5 years	EMWR	SME sign up and roll out training programme	GHG, Public Awareness	Modos programme in place to promote circular economy measures in business.	Ongoing
R19	Investigate introducing a leaf composting programme across the City	In the next 5 years	Waste Management Services	Composting programme introduced, # tonnage of leaves diverted to composting	Resilience, Public Awareness	Leaf composting programme introduced and ongoing for all street sweeping operations. In excess of 800 tonnes of leaves diverted to compost in 2019. Compost now being made available to community groups by waste management services.	Ongoing
R20	Support and promote Tidy Towns/ Green Schools/ City Neighbourhoods initiatives and local Agenda 21 initiatives	10 years plus	Waste Management Services	# of participants yearly	Resilience, Public Awareness	Due to COVID 19 restrictions, city neighbourhoods awards are being carried out locally thorugh the area structure. 42 schools awarded green flags this year to date. Work is ongoing on ways to deliver planned workshops for schools remotely. CEAF- 81 projects supported under current scheme, some have been delayed due to Covid-19, others such as school workshops will now be delivered remotely where possible.	Ongoing

RESOURCE MANAGEMENT

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
R21	Develop sustainability guidelines and terms and conditions for any events supported, facilitated or organised by DCC	In the next 5 years	Waste Management Services	Guidance produced, # of events with sustainability terms and conditions		Guidance to be developed based on lessons learned from pilot projects currently underway. Policy to eliminate single use plastics is being developed in sampling and merchandising permit applications by working with applicants to develop alternatives.	Ongoing
R22	Review terms and conditions for all events approved by DCC to incorporate possible sustainability conditions	In the next 5 years	Waste Management Services	Guidance produced on terms and conditions	GHG	Completed	Complete
R23	Any events supported, facilitated or organised by DCC will not permit balloon or Chinese lantern releases	10 years plus	Waste Management Services	# of events		Restrictions are in place to ensure balloon and chinese lanterns are not in use.	Ongoing
R24	DCC to consult with the events industry on alternatives to non-compostable single use food and beverage containers at DCC events	In the next 5 years	Waste Management Services	Consultation undertaken and submissions received	GHG	All applications to distribute merchandise in the city are now forwarded to the Litter Management Office in the first instance. Due to COVID 19 restrictions, all events in Dublin City were cancelled. Continue to liaise with individual companies to advise them on how to reduce their waste and improve their sustainability.	Ongoing
R25	DCC to select an appropriate event as a pilot to trial alternatives to non-compostable single use food and beverage containers	In the next 5 years	Waste Management Services	Event selected and trial undertaken	GHG	All events were cancelled due to COVID 19 restrictions. Contact will be made with event organisers when events resume.	Ongoing
R26	Phase out the use of single use plastic cups from all DCC canteens and replace with the use of ceramic cups and personal reusable cups	In the next 5 years	Waste Management Services	No single use plastic cups in use in all Dublin City Council canteens	GHG	Completed	Complete
R27	Identify pilot locations for water access points	In the next 5 years	Water Framework Directive	Sites identified		Two locations have been identified on the south side, one more is available and a location is to be identified	Ongoing
R28	Host and select sites for the Composting Demonstration using Master Composter EPA Stop Food Waste Programme or similar programme to assist sustainable gardening and management of landscaping waste	10 years plus	Waste Management Services	# of sites		Ongoing discussions are underway on how we can deliver master composter training to local communities during the Covid 19 period.	Ongoing

NO	ACTION	TIME-FRAME	LEAD(S)	INDICATORS	TARGET(S) IMPACTED	PROGRESS REPORT 2020	STATUS
R29	Continue to investigate best practice in street recycling facilities	10 years plus	Waste Management Services	Report produced		On street recycling campaign implementation delayed due to Covid 19 - provisional launch now mid Oct 2020. We are continuing to liaise with Hubbub examining succesful approaches taken to the introduction of on street recycling.	Ongoing
R30	Explore collaboration with stakeholders such as Refill.ie to reduce single use items	In the next 5 years	Waste Management Services	Feasibility assessed		Projects suspended due to COVID 19 restrictions.	Ongoing
WATER CONSERVATION							
R31	Implement water conservation campaign in civic buildings	In the next 5 years	Facilities Management	% reduction in water consumed		Impacted by COVID	Ongoing
R32	Develop and implement an education programme to tackle climate issues related to the water sector	In the next 5 years	Water Framework Directive	Education programme established		Not started	Not started
ACTIONS AWAITING BUDGET							
R33	*Investigate the introduction of green street cleaning; use biodegradable cleaning agents*	*In the next 5 years*	*Waste Management Services*	*% of agents replaced*		*Not started*	Not started
R34	*Develop sustainable construction waste policy*	*In the next 5 years*	*Housing / City Architects*	*Policy developed and implemented*		*Not started*	Not started
R35	*Trial of low flush toilets in Council headquarters and social housing*	*In the next 5 years*	*City Architects*	*Trial completed*		*Not started*	Not started
R36	*Research feasibility of rainwater harvesting in Council buildings and social housing*	*In the next 5 years*	*City Architects*	*Feasibility study completed*		*Not started*	Not started
R37	*The Economic Development and Enterprise Office will carry out further research to engage with stakeholders to promote and develop business supports to encourage reduction of emissions and other climate driven actions, and to develop targets that could be measured on progress being achieved*	*In the next 5 years*	*Local Enterprise Office*	*Report on business supports roll-out*		*Your Dublin, Your Voice survey has been completed and the results are being analysed.*	Ongoing

CONCLUSIONS AND FUTURE IMPLEMENTATION

This first report on DCC's progress on the actions set out in the Climate Change Action Plan 2019-2024 shows that significant progress has been made, however, more needs to be done. The challenge ahead will be facilitating not only collaboration across departments to achieve an interdisciplinary approach to climate action but with stakeholders outside of DCC. The recent working paper produced by the Climate Change Advisory Council highlights the importance of a systems approach to climate action:

Adaptation and mitigation responses in our cities and their hinterland need to be coordinated to maximise synergies and achieve inherent co-benefits. In particular, there is an opportunity for cities to address key issues such as energy poverty, 'transport deserts' (when a community lacks necessary public transport options to live without driving) and 'food deserts' (areas with limited access to affordable and nutritious food), while responding to climate change (Foster et al., 2019). Cities have the capacity to embed equity in responses to climate change, in other words implement policies that enable a Just Transition through spatial planning, for example (Castán Broto, Oballa and Junior, 2013; Bulkeley, Edwards and Fuller, 2014)[20]

Going forward into 2021, there is an opportunity to achieve this through the forthcoming development plan. The Planning Department is actively engaging various departments to develop issues papers that will inform the development plan. The issue papers are focused on responses to climate change that are in the CCAP, namely, nature-based solutions, energy, transport, and flooding.

Beyond this, now that a climate action team has been established, partnerships will be fostered with academia, private sector and other local authorities to insure that Dublin achieves resilience to climate change. DCC's Climate Team will continue to work with Codema and CARO to drive the implementation of the CCAP and investigate opportunities for regional collaboration with other Local Authorities. Perhaps more pressing, is an understanding what will be needed for a just transition, to a low carbon future, in the urban context, is a key focus of the community engagement strategy that has commenced with internal stakeholders and will continue for the lifespan of this plan.

Finally, it is important to acknowledge, that as the city emerges from COVID 19 there will not be a return to normal. However, there is an opportunity to bounce forward and improve the quality of life in the city. COVID has provided lessons that are being applied, a critical one is the importance of public spaces in supporting health and well-being and access to these spaces. The work that has been done by DCC with academia shows that access and allocation of space is not equitable across the city. There is an opportunity now to co-create and collaborate with citizens in developing high quality spaces that not only support health and well-being but adapt the city to climate change. This will be challenging, but the costs of not doing so as is being learned from COVID will be higher.

APPENDIX I: REFERENCES

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APPENDIX II: LOCAL AUTHORITY CLIMATE ACTION CHARTER

CLIMATE ACTION CHARTER

For Local Authorities and Minister for Communications, Climate Action and Environment on behalf of Government.

(1) The signatories share the common understanding that:

(a) the evidence of global warming is unequivocal and the effects of climate change are clearly evident;
(b) it is important to take action and to work together to share best practices, to reduce Greenhouse Gas (GHG) emissions and address the impacts of climate change
(c) reducing GHG emissions and preparing for climate change impacts will generate environmental, social, economic and health benefits for individuals, families, and communities
(d) It is important to take action to adapt to the now inevitable consequences of climate change and to work collectively to ensure that the local authority sector is positioned to build resilience against negative impacts and avail of the positive effects that may occur.

(2) The signatories acknowledge that a whole of government approach is essential in addressing climate change and recognise that:

(a) Central Government has a lead role to play in developing policy and ensuring resources are made available to realise Ireland's commitment to achieving a net zero carbon energy system objective for Irish society and in the process, create a climate resilient, vibrant and sustainable country

(b) Local Authorities are ideally placed to provide robust leadership in advancing this objective at the local and regional level. Support and resources will continue to be provided through the National Development Plan allocations, in addition to their own resources, which will aid them in developing and implementing relevant activities under this charter

(c) Central and Local Government need to work in partnership and collaboration to ensure an effective response to the challenges presented by climate change

(3) This Charter acknowledges that local authorities will, with the support of Central Government:

(a) be advocates for Climate Action in our own policies and practices, and in our many various dealings with citizens and to underpin this role through the corporate planning process.

(b) adhere to the UN Sustainable Development Goals, in particular Goal 13 Climate Action;

(c) aim to measure the carbon impact of our various activities as accurately as possible and report as required so as to inform relevant local, regional and national policies,

(d) implement, in so far as is practicable, measures which reduce our carbon emissions in line with national objectives, and develop a method for planning and reporting on these actions

(e) deliver a 50% improvement in energy efficiency by 2030(on the 2009 baseline)

(f) ensure that policies and practices at local government level lead us towards low carbon pathways and put in place a process for carbon proofing major decisions, programmes and projects on a systematic basis, including investments in transport and energy infrastructure moving over time to a near zero carbon investment strategy

(g) Ask suppliers as part of the procurement process to provide information on their carbon footprint and on the sustainability practices and steps they plan to reduce its impact

(h) implement green public procurement strategy and procedures across all business areas

(i) support our employees to undertake changes in their lifestyles both at work and at home, to reduce carbon impact and encourage work-based employee-led groups to identify and implement ideas for improvement

(j) put in place, and resource, a long term training strategy (technical and behavioural) for LA staff to provide appropriate capacity for the sector to deliver on climate action

(k) encourage clients/customers/service users to undertake lifestyle changes to reduce their carbon impact, with a particular emphasis on supporting those clients/customers/service users who may face difficulties in funding such measures

(l) cultivate and actively participate in partnerships with enterprise, community and voluntary groups so as to, improve the use of resources and reduced climate impact

(m) play a key role in helping to build and implement a sustained localised citizen engagement model in supporting the various initiatives under the National Dialogue on Climate Action

(n) exercise our planning and regulatory roles to help improve climate outcomes in the wider community and beyond the public sector, by developing and implementing robust evidenced based policy and standards on climate action, through appropriate and relevant adaptation and mitigation measures
(o) continue to identify and develop specific actions to be taken to reduce the risks associated with negative climate change impacts and build resilience to these impacts through effective implementation of climate adaptation strategies/ Climate Change Action Plans

(p) support elected officials in ensuring all council led activities are climate proofed in terms of achieving effective low carbon and climate resilient outcomes

(q) Explore opportunities to partner or collaborate on climate action initiatives across the public, private and education sectors.

(r) Support Enterprise through LEO/LCDC offices to exploit opportunities which will arise from meeting the challenges of Climate Change

(s) work with relevant stakeholders to source funding for implementing climate action projects;

(t) liaise with 3rd level institutions & the research community both nationally and internationally with a view to developing centres of excellence where appropriate

(u) develop links with young citizens to give voice to their understanding and concerns on climate change and to enhance their awareness and the actions that they can take.

(v) continue to develop and strengthen links with both central government (relevant departments and agencies) and regional bodies to help ensure a coordinated and coherent approach to the delivery of the national climate action agenda

(w) Monitor, evaluate and report annually on the implementation of activities under this charter

APPENDIX III: LIST OF ACRONYMS

BER	Building Energy Rating
CARO	Climate Action Regional Office
CCAC	Climate Change Advisory Committee
CCAP	Climate Change Action Plan
CCMA	County & City Management Association
CFRAMs	Catchment Flood Risk Assessment & Management
CSO	Central Statistics Office
DAFM	Department of Agriculture, Food & Marine
DCC	Dublin City Council
DECC	Department of the Environment, Climate & Communications
DHPLG	Department of Housing, Planning & Local Government
DLAs	Dublin Local Authorities
DTTAS	Department of Transport, Tourism & Sport
EMWR	Eastern & Midlands Waste Region
EnPi	Energy Performance Indicator
EPA	Environmental Protection Agency
EPC	Energy Performance Contract
ESRI	Economic & Social Research Institute
EV	Electric Vehicle
GHG	Greenhouse Gases
LEADER	Liaisons entre actions de development de Léconomie Rurale
LGMA	Local Government Management Agency
NAF	National Adaptation Framework
NBS	Nature-Based Solutions
NZEB	Nearly Zero Energy Building
NTA	National Transport Authority
NPWS	National Parks & Wildlife Services
OPW	Office of Public Works
RD&D	Research, Development & Demonstration
RMCEI	Recommended Minimum Criteria for Environmental Inspections
SDZ	Strategic Development Zone
SEAI	Sustainable Energy Authority of Ireland
SEC	Sustainable Energy Community
SECAP	Sustainable Energy & Climate Action Plan
SPC	Strategic Policy Committee
SuDS	Sustainable Urban Drainage Systems
TPER	Total Primary Energy Requirement



Comhairle Cathrach
Bhaile Átha Cliath
Dublin City Council

CARO

codema
Dublin's Energy Agency