

# Strategic Environmental Assessment Screening Report

For  
**Climate Change Adaptation Strategy for Cork City Council**

*Determination of the need for a Strategic Environmental Assessment for the Cork City Council Climate Change Adaptation Strategy prepared under the National Climate Change Adaptation Framework*

September 2019

ON BEHALF OF  
Atlantic Seaboard South Region  
Climate Action Regional Office (CARO)

Prepared by

**Enviroguide Consulting**

📍 Dublin

3D Core C, Block 71, The Plaza,  
Park West, Dublin 12

📍 Kerry

19 Henry Street  
Kenmare, Co. Kerry

🌐 [www.enviroguide.ie](http://www.enviroguide.ie)

✉️ [info@enviroguide.ie](mailto:info@enviroguide.ie)

📞 +353 1 565 4730



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## 1 INTRODUCTION

### 1.1 Background

The Earth's Climate is changing. While natural fluctuations in climate are considered normal, emerging research and observational records from across the world show rates of change that are far greater than those experienced in recent history. Global temperatures have risen and are projected to rise further bringing changes in weather patterns, rising sea levels and increased frequency and intensity of extreme weather. Ireland's climate is changing in line with global patterns and these changes are bringing significant and wide ranging economic, environmental and social impacts.

Climate change is now recognised as a global challenge with policy responses required in terms of both mitigating the causes of climate change and in adapting to the now inevitable consequences of our changing climate. Action at local level is vitally important to help reduce the risks and impacts of climate change across communities.

This local authority Climate Change Adaptation Strategy forms part of Ireland's national strategy for climate adaptation as set out in the National Adaptation Framework (NAF) which was produced under the provisions of the Climate Action and Low Carbon Development Act 2015.<sup>1</sup>

It is tasked with mainstreaming climate change adaptation over time into all functions, operations and services of the local authority. It seeks to inform or 'climate proof' existing plans and policies produced and implemented by the local authority. This ensures a considered, consistent and coherent approach, facing head-on the challenges of a changing climate. Crucially, it also helps in building resilience within the local authority organisation itself as well as across all communities.

## 2 LEGISLATIVE CONTEXT

### 2.1 Strategic Environmental Assessment

A Strategic Environmental Assessment (SEA) is the formal, systematic evaluation of the likely significant environmental effects of implementing a plan or program, or variation to a plan or program, before a decision is made to adopt it. The SEA Directive<sup>2</sup> requires, *inter alia*, that SEA is undertaken for certain plans, programs or variations to these.

The SEA Directive has been transposed into Irish law through the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. 435 of 2004) and The Planning and Development Strategic Environmental Assessment (SEA) Regulations 2004 (S.I. 436 of 2004). These Regulations have since been amended by the European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (S.I. No. 200 of 2011) and the Planning and Development (SEA) (Amendment) Regulations 2011 (S.I. No. 201 of 2011). The criteria as set out in Annex II of The SEA Directive (Directive 2001/42/EC) on the assessment of the effects of certain plans and programmes on the environment, this criteria is also set out in Schedule 1 of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. 435 of 2004) need to be considered while drafting the Climate Change Adaptation Strategy.

<sup>1</sup> Climate Action and Low Carbon Development Act 2015 (S.I. No. 25/2016). Available at <http://www.irishstatute-book.ie/eli/2015/act/46/enacted/en/htm>

<sup>2</sup> Directive 2001/42/EC of the European Parliament and of the Council of Ministers, of 27th June 2001, on the Assessment of the Effects of Certain Plans and Programmes on the Environment

This SEA screening report is consistent with the process as recommended by The Department of Environment, Heritage and Local Government guidance document entitled *Implementation of SEA Directive 2001/42/EC Assessment of the Effects of Certain Plans and Programmes on the Environment November 2004*, specifically Chapter 3 (SEA: Screening and Scoping) and furthermore uses the criteria for SEA screening criteria set out in the SEA Directive.

An Appropriate Assessment Screening Report has also been prepared for this Climate Change Adaptation Strategy in line with Article 6(3) of the EU Habitats Directive (92/43/EEC).

## 2.2 Climate Change Adaptation

### 2.2.1 International Context

The **United Nations Framework Convention on Climate Change (UNFCCC)** is an international environmental treaty adopted in May 1992. The framework's objective is “*to stabilize greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system*”. The framework did not set binding limits on greenhouse gas emissions and contained no enforcement mechanisms. However, the framework outlined how specific international treaties may negotiate further action towards its key objective. **The Paris Agreement 2015** is a protocol set within the context of the UNFCCC (ratified by Ireland on 4<sup>th</sup> November 2016) and it is aimed at:

- Limiting global warming to less than 2°C above pre-industrial level and pursuing efforts to limit the temperature increase to 1.5°C.
- Building resilience and increasing the ability to mitigate the impacts of climate change.

The agreement states the need for Parties to formulate and implement National Adaptation Plans.

### 2.2.2 EU Context

The 2013 EU Strategy on Adaptation to Climate Change encouraged all Member states to adopt comprehensive adaptation strategies. It sought better informed decision making through the identification and addressing of gaps in knowledge about adaptation. The European Climate Adaptation Platform Climate-ADAPT, was developed as a resource mechanism to help users access and share information on adaptation.

The Global Covenant of Mayors for Climate and Energy is a voluntary, bottom up, approach for cities and local governments to combat Climate Change and move towards a low emission, resilient society. The Global Covenant of Mayors for Climate and Energy brought the Compact of Mayors and the EU Covenant of Mayors under one international body in January 2017 incorporating over 9,000 cities and local governments.

### 2.2.3 National Context

The 2012 National Climate Change Adaptation Framework (NCCAF) was Ireland's first step in developing a national policy on adaptation actions to combat the impacts of climate change.

The National Policy Position on Climate Action and Low Carbon Development 2014 restated the policy position of the NCCAF, 2012. Greenhouse gas mitigation and adaptation to the impacts of climate change were to be addressed in parallel national plans under an evolving climate policy to 2050.

The Climate Action and Low Carbon Development Act 2015 was a landmark national milestone in the evolution of climate change policy in Ireland. It provides the statutory basis for the national transition objective laid out in the National Policy Position (as per above). Further to this, it made provision for and gives statutory authority to both the National Mitigation Plan (NMP), published in 2017 and the

National Adaptation Framework (NAF) published in 2018. This Local Adaptation Strategy forms part of the National Adaptation Framework.

The Local Authority Adaptation Strategy Development Guidelines 2018 provides guidance to Local Authorities to develop their own Climate Action Adaptation Strategy. In developing this adaptation strategy Cork City Council has been consistent with these guidelines.

## 2.3 Cork City Council's Climate Change Adaptation Objectives

The purpose of the Cork City Council's Climate Change Adaptation Strategy is to achieve the national objective of becoming a more climate resilient society and economy by 2050. In order to help tackle current and future challenges that climate change can present, Cork City Council have set out a number of key objectives in their strategy, under thematic principles. Table 1 below outlines Cork City Council's Climate Change Adaptation Strategy objectives per theme.

Under each theme in the Climate Change Adaptation Strategy, there are a number of actions that have been detailed to achieve each Objective. All the actions per theme can be found in Appendix 1.

**TABLE 1 CORK CITY COUNCIL'S CLIMATE CHANGE ADAPTATION STRATEGY OBJECTIVES**

<b>Local Adaptation Governance and Business Operations</b>	
1	To support the successful and practical implementation of climate adaptation planning.
2	To ensure that climate adaptation is mainstreamed into all relevant activities and operations of Cork City Council.
3	To develop and maintain a resource and risk model for Cork City Council.
4	To build resilience within Cork City Council to support service delivery.
5	To build capacity within Cork City Council to respond effectively to extreme weather events.
6	To identify and support opportunities that may arise from pursuing adaptation efforts through the functions of Cork City Council.
<b>Infrastructure and Built Environment</b>	
7	To increase the resilience of roads and transport infrastructure.
8	To increase the resilience of Cork City Council buildings, housing stock, parks and cemeteries and other capital assets.
<b>Land Use and Development</b>	
9	To integrate climate action considerations into land use planning policy and influence positive behaviour.
<b>Drainage, Water and Flood Management</b>	
10	To adapt to the increased risk and impact of flooding due to climate change.
11	To provide adequate drinking water supply and waste water treatment during extreme weather events.
12	To liaise and work with other bodies and agencies responsible for the management of water sources.
<b>Nature, Natural Resources and Cultural Infrastructure</b>	
13	To protect, enhance and restore the natural environment and promote biodiversity.
14	To review, manage and protect biodiversity and natural heritage within the natural environment.
15	To support and enhance built heritage and cultural infrastructure.
<b>Citizen Safety, Health and Wellbeing</b>	
16	To consult, identify actions and build capacity and resilience within local communities.
<b>Partnerships with other Sectors and Agencies</b>	
17	To collaborate with other sectors and agencies in programmes relating to climate change.

## 2.4 Consultation

### 2.4.1 Environmental authorities

Article 5 (4) of the SEA Directive specifies that each Member State should designate the relevant Environmental Authorities which, by reason of their specific environmental responsibility, are likely to be concerned with the potential environmental effect of any plan or programme. Article 9(5) and 9(6) of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (as amended) details the need for the competent authority (Cork City Council) to consult the relevant environmental authorities regarding the development of certain plans and programmes. On an Irish context, as a minimum the following environmental authorities should be contacted when developing county plans and programmes:

- Environmental Protection Agency (EPA);
- The Minister for the Environment (Minister Communications, Climate Action and Environment) – *where the planning authority considers that a plan might have significant effects in relation to the architectural or archaeological heritage or to nature conservation;* and
- The Minister for Communications, Marine and Natural Resources (Minister for Agriculture, Food and the Marine) - *where the planning authority considers that a plan might have significant effects on fisheries or the marine environment.*

Cork City Council on the 30<sup>th</sup> July 2019 sent the Draft Climate Change Adaptation Strategy, the SEA Screening Report and Appropriate Assessment (AA) Screening to the following Environmental Authorities:

- Environmental Protection Agency (EPA);
- Department of Agriculture, Food and the Marine (including Inland Fisheries);
- Department of Culture, Heritage and the Gaeltacht; and
- Department of Communications, Climate Action and the Environment.

**TABLE 2 ENVIRONMENTAL AUTHORITIES SUMMARY OF SUBMISSIONS AND RESPONSES**

Environmental Authority	Summary submission	Cork City Council response
EPA	<ul style="list-style-type: none"><li>• Recommends reference to Ireland's Environment Our Ireland's Environment; An Assessment 2016 (EPA, 2016) report which highlights the need to accelerate mitigation actions to reduce greenhouse gas emissions and to implement adaptation measures to increase our resilience to the adverse impacts of climate change.</li><li>• Suggests that the strategy describe the links and Relationship with Sustainability Development Goals.</li><li>• Recommends that the strategy incorporates a schematic/graphic, clarifying the relationship with other key climate related plans/strategies, for example, Climate Act, the All-of-Government Climate Action Plan, National Adaptation Framework and adaptation guidelines. Sug-</li></ul>	<p>Cork City Council acknowledges the EPA submission, and have made text changes and policy updates throughout the Climate Change Adaptation Strategy. Also updating the strategy with a systematic of how the Climate Change Adaptation Strategy fits into the National Adaptation Planning.</p> <p>Specific Actions were amended or added, such as Action 9.3 was updated to the following:</p> <p>(a) <i>Ensure that climate change is a key consideration in selecting locations for future developments and that this is reflected in landuse zoning policy.</i></p> <p>(b) <i>In the development of policy and the planning and provision of green infrastructure, ensure appropriate buffer zones are maintained and protected</i></p>

	<p>gesting to align with adjoining local authorities and incorporate any relevant recommendations that may arise within regional climate adaptation plans/programmes/strategies.</p> <ul style="list-style-type: none"> <li>• Suggests strategy should explore opportunities to maximise co-benefits in preparing and implementing the Strategy and maximise the many potential co-benefits of climate adaptation measures for human health, biodiversity, water quality, flood risk management, land use planning (including land use zoning), and other interrelated areas.</li> <li>• Recommends prioritisation of measures with the potential to yield multiple environmental and societal benefits.</li> <li>• Recommends commitment that potential adverse cumulative / in-combination environmental effects are accounted for when considering, selecting and implementing specific adaptation measures.</li> <li>• Reference to relevant climate data and projections/scenarios.</li> <li>• Suggest reference to the OPWs flood risk management plans i.e. The second cycle of OPW flood risk management plans.</li> <li>• Consider relevant actions associated with integrated coastal zone management, in collaboration with adjoining local authorities and other key stakeholders.</li> <li>• Advises of SEA process and prescribed consultees.</li> </ul>	<p><i>to avoid potential impacts on designated habitats or protected species and habitats, and to protect and enhance wider biodiversity.</i></p> <p>A new action 2.2 was added as follows:</p> <p><i>Ensure through the delivery of all services, functions and activities that there is more effective implementation of relevant regulations, policies, plans and strategies with a role in climate adaptation and environmental protection</i></p>
Inland Fisheries Ireland	<ul style="list-style-type: none"> <li>• Recommends to describes the statutory remit of the Inland Fisheries Ireland for the protection, management and conservation of the inland fisheries resource.</li> <li>• Suggests detailing the impact that climate change and future projections will have on aquatic habitats and species.</li> <li>• Recommends a catchment approach to dealing with anticipated impacts of climate change.</li> <li>• Requests that consideration be given to the inclusion of River Restoration Techniques and Floodplain Restoration Techniques aimed at improving ecological status of waterbodies.</li> </ul>	<p>Cork City Council acknowledges the IFI's submission, and have included a new action, under Objective 12, Action 12.4:</p> <p><i>Liaise, collaborate and support agencies responsible for the management of watercourses in their employment of River Restoration Techniques and Floodplain Restoration Techniques aimed at improving ecological status of waterbodies</i></p>

## 2.4.2 Public Consultation

Cork City Council's also conducted a six-week period from 30<sup>th</sup> July 2019 to 13<sup>th</sup> September 2019, where the Draft Climate Change Adaptation Strategy, with the accompanying SEA Screening Report and AA Screening Report, were presented for public consultation. The following outreach methods were used to advertise the consultation and invite submissions:

- Local Newspaper Notice;
- Local Newspapers Advertising;
- Radio adverts;
- Radio interview;
- Social Media channels;
- Internal Cork City Council communication channels;
- Display and available in Cork City Hall and City Council libraries;
- Online viewing of all documents on the Cork City Council Website (<https://www.cork-city.ie/en/council-services/news-room/latest-news/cork-city-council-launches-draft-climate-change-adaptation-strategy.html>), with opportunities to submit by post, email and a consultation portal;
- Presentation to Elected Members of Cork City Council;
- Engagement with adjoining Local Authorities including Clare County Council, Cork County Council, Limerick City and County Council and Kerry County Council;
- Two public information days were held at Cork City Hall on Friday September 6th and Saturday September 7th, 2019 from 9.00am – 5.00pm where attendants could talk with experts on climate action and make a submission to the Cork City Council Draft Climate Change Adaptation Strategy;
- Public exhibitions included presentation from experts from the following organisations: Met Éireann, the Environmental Protection Agency, the Sustainable Energy Agency of Ireland (SEAI), the Water Communities Offices, An Taisce, the National transport Authority, Cork Environmental Forum, Cork Nature Network, CARO, Energy Cork and UCC's ERI and Climate Ireland initiatives and Cork City Council Parks and Heritage Sections; and
- Five public workshops were organised by Cork City Council and held during the public information days. Participants of the first workshop included the Environment Pillar of the local Public Participation Network (PPN), with representatives from Cork Chamber and the Cork Business Association. Two of the workshops were specifically for local secondary school pupils, with the last two workshops open to the general public, organised on a 'first-come-first-served' basis.

## 2.4.3 Summary of Consultation submissions

A number of submissions came in during the consultation periods. A total of 68 submissions were received from members of the public and organisations. Consultation submissions were received during public open days, during workshops, through online portal and email. Some individuals and organisations made more than one submission. The following organisations and individuals made a submission:

- |   |  |
|---|--|
| <ul style="list-style-type: none"><li>• Ali Bracken</li><li>• Sangrawee Laksanasopin</li><li>• Mark O' Hagan</li><li>• Clair McSweeney</li><li>• Juvi Hertel</li><li>• Kieran Murphy</li><li>• Bob Lynch</li><li>• Emily Coleman</li><li>• Chanelle O' Regan</li><li>• Kate Holohan</li><li>• Isabel Scully</li></ul> | <ul style="list-style-type: none"><li>• Fatima Jameel</li><li>• Hanna D'Aughton</li><li>• Katie Quinn</li><li>• Katelyn Leahy</li><li>• Michael McCarthy</li><li>• Noel O'Regan</li><li>• Maria McGuinness</li><li>• Peter Lucey</li><li>• Transport &amp; Mobility Forum Cork</li><li>• Cork Environmental Forum</li><li>• Justin Fleming</li></ul> |
|---|--|

- Roisin Cuddihy
- Frances Gordon
- Irish Water
- Failte Ireland
- Gas Networks Ireland
- Gabriella Chisholm
- Mary Casey
- Kate Connolly
- Richard Higgins
- Blake Kelly
- Hanna Richards
- Rachel Delaney
- Darragh Wilkins
- Courtney Collins
- Patrick Leader
- Christie Godsmark
- Anna Buckley
- Deutsche Borse
- Cork Climate Action (coalition group)
- Ruth Doherty
- SHEP Earth Aware
- Trees Please Group
- ERVIA
- Environmental Research Institute
- Donal Dorr
- Bob Kelleher
- Mary Cunningham
- Cork Nature Network
- Robert Devoy
- Cork Chamber
- Ina Kelly
- Cork Airport
- Anois
- Cork Food Policy Council
- Cork Healthy Cities
- Green Party
- Frank Dorr
- Elders for Earth
- Green Spaces for Health South Parish
- SECAD
- John Morehead
- Carol Doyle/Thorsten Ohlow
- Save Cork City
- Office of Public Works (OPW)
- Department of Agriculture, Food and the Marine
- Geological Survey Ireland

Cork City Council reviewed each submission, and a number of common themes and issues were raised. During the facilitated Workshops a number of submissions raised common issues and they can be generally summarised under the following headings:

- Financial resources – regarding the use of resources within the City and the need for more effective resourcing of community organisations to create vibrant and connected neighbourhoods;
- Human Resources – for example a City Biodiversity Officer to support actions that conserve biodiversity and increase resilience, including the development of local biodiversity plans;
- Investment in green spaces and green infrastructure;
- Diverse representation and better coordination – more diversity in the backgrounds of decision makers would produce more rounded policy and more coordinated local action and local groups would increase impact;
- Promote cycling and walking - More cycling and walking would reduce congestion and air pollution in the city making it more liveable and more resilient to climate change. Investing in cycling infrastructure is a win-win for climate change adaptation and mitigation, as well as social cohesion and health;
- Promote remote and home working – this would reduce congestion and the carbon pollution associated with commuting to work. It would also allow people to connect to their local communities which increases resilience to climate change;
- Creating connected communities and neighbourhoods that localise food, health and energy services and promote sustainable transport and community response;
- Equality - Protecting the elderly and the homeless. Pay front line public sector workers better. Provide adequate social protection. Provide access for all to education, health, jobs and housing. Fund emergency services so that everyone is safe;

- Biodiversity - Strengthen biodiversity and plant more trees especially broadleaf trees. Invest in green spaces, green the city centre and green buildings (e.g. green roofs). Protect natural habitats from destruction and encourage wildlife for example by planting habitats for bees. Ban pesticides. Redesign inner city Cork to make it greener;
- Transport - Free buses for under-18s or free public transport for all. More EV charging points and better-quality roads. Better traffic management. Build more resilient infrastructure. Invest in snow ploughs for the airport and city centre. Make city centres more compact and easier to get around;
- Water and flooding – improve drainage systems, clear drains and avoid building on floodplains. Install flood barriers. Fund flood protection. Conserve and pay for water. Protect drinking water from contamination and install drinking water fountains;
- Zero waste lifestyles – regulate fast fashion. Eliminate food waste. Create more zero waste shops. Create community gardens and encourage people to grow their own food. Organise clean up days and zero waste festivals; and
- Reduce fossil fuels - Insulate houses to reduce use of fossil fuels. Provide access to cheap renewable energy. Green efficient buildings. Introduce carbon-footprint measuring and impose controls.

Other submissions received during the public open days, through the online portal and by email referenced areas that the Climate Change Adaptation Strategy could address and provided detail and examples of how they might be adopted. The following topics were covered:

- Adaptation in context of Climate Action and Mitigation efforts;
- Timeframes for Action;
- Other Sectors;
- LA Functions and areas of responsibility;
- Cork City Council Climate Action Team;
- Sustainable transport, promotion of cycling, cycling infrastructure, non-fossil fuel vehicles;
- Biodiversity crisis, National Pollinator Plan, tree planting, preserve green spaces/more green spaces, re-wilding, reduce/ban pesticide and insecticide;
- Flood related issues;
- Budget/Funding; and
- UN Sustainable Development Goals (SDGs).

Post consultation, Cork City Council incorporated a number of changes throughout the Climate Change Adaptation Strategy. For example, a number of new actions were added under Local Adaptation Governance and Business Operations, Action 1.7, *Building on adaptation planning actions set out in this strategy, support and compliment the practical implementation of actions arising from the National Climate Action Plan – to Tackle Climate Breakdown (as revised and updated annually), across the broad range of functions of the local authority to achieve the national climate ambition i.e. decarbonisation targets to 2030 and objectives to 2050.*

Other actions were added, under Infrastructure and Built Environment, for example Action 8.5 *Examine ways to reduce/avoid unnecessary staff travel and promote initiatives to promote more sustainable forms of transport for all Cork City Council staff. Examine the findings of the ‘Smarter Travel Workplace’ 2019 Staff Travel Survey (currently on-going) to deliver positive action amongst staff, and Action 8.6 Promote cycling and walking to support a greater uptake of active travel in Cork city, thus reducing carbon emissions and improving air quality. Promote the modal shift away from private cars through landuse planning policy, development management and local initiatives and promotions. Continue to support Mobility Management Initiatives and other initiatives which support greater use of walking, cycling and public transport including Bike Week, European Mobility Week and other related promotions. Use the ‘Cork City Cycling Strategy’ and the ‘Cork Cycle Network Plan’ to help deliver this action.*

The Chief Executive Report attached with Cork City Council's Climate Change Adaptation Strategy provides a detailed summary of all submission and Corks City Council's response to each of the issues raised.

## 2.5 Appropriate Assessment

An Appropriate Assessment Screening Report has also been prepared for this Climate Change Adaptation Strategy in line with Article 6(3) of the EU Habitats Directive (92/43/EEC). The Report concludes:

*In conclusion, further to a screening of Cork City Council's Climate Change Adaptation Strategy for possible significant effects on Natura 2000 sites no significant effects were identified. The screening outlined in this report included an assessment of possible in-combination effects. Based on the objective information contained in this report and applying the precautionary principle, it is concluded that the Strategy will not have a significant effect on Natura 2000 sites.*

The AA Screening Report accompanies Cork City Council's Climate Change Adaptation Strategy.

## 3 DETERMINING WHETHER AN SEA IS REQUIRED

The objective of the SEA Directive for the assessment of the effects of certain plans and programmes on the Environment is to:

*"provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment."<sup>3</sup>*

Post the Environmental Authority and Public Consultation, the updated Climate Change Adaptation Strategy was screened for SEA requirements. The below details the SEA screening process carried out.

### 3.1 Requirement to carry out SEA – Pre-Screening Checklist

In order to determine if this Strategy is considered a plan/programme under Article 3 of the SEA Directive, a pre-screening check is necessary. Figure 1 below provides details of the pre-screening checklist; this checklist is based on the decision tree published by the EPA in the *Development of SEA methodologies for plans and programmes in Ireland*.<sup>4</sup>

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<sup>3</sup> Directive 2001/42/EC of the European Parliament and of the Council of Ministers, of 27th June 2001, on the Assessment of the Effects of Certain Plans and Programmes on the Environment

<sup>4</sup> P. Scott & P. Marsden., 2001-EEP/DS-2/5 *Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland* Synthesis Report © Environmental Protection Agency 2003

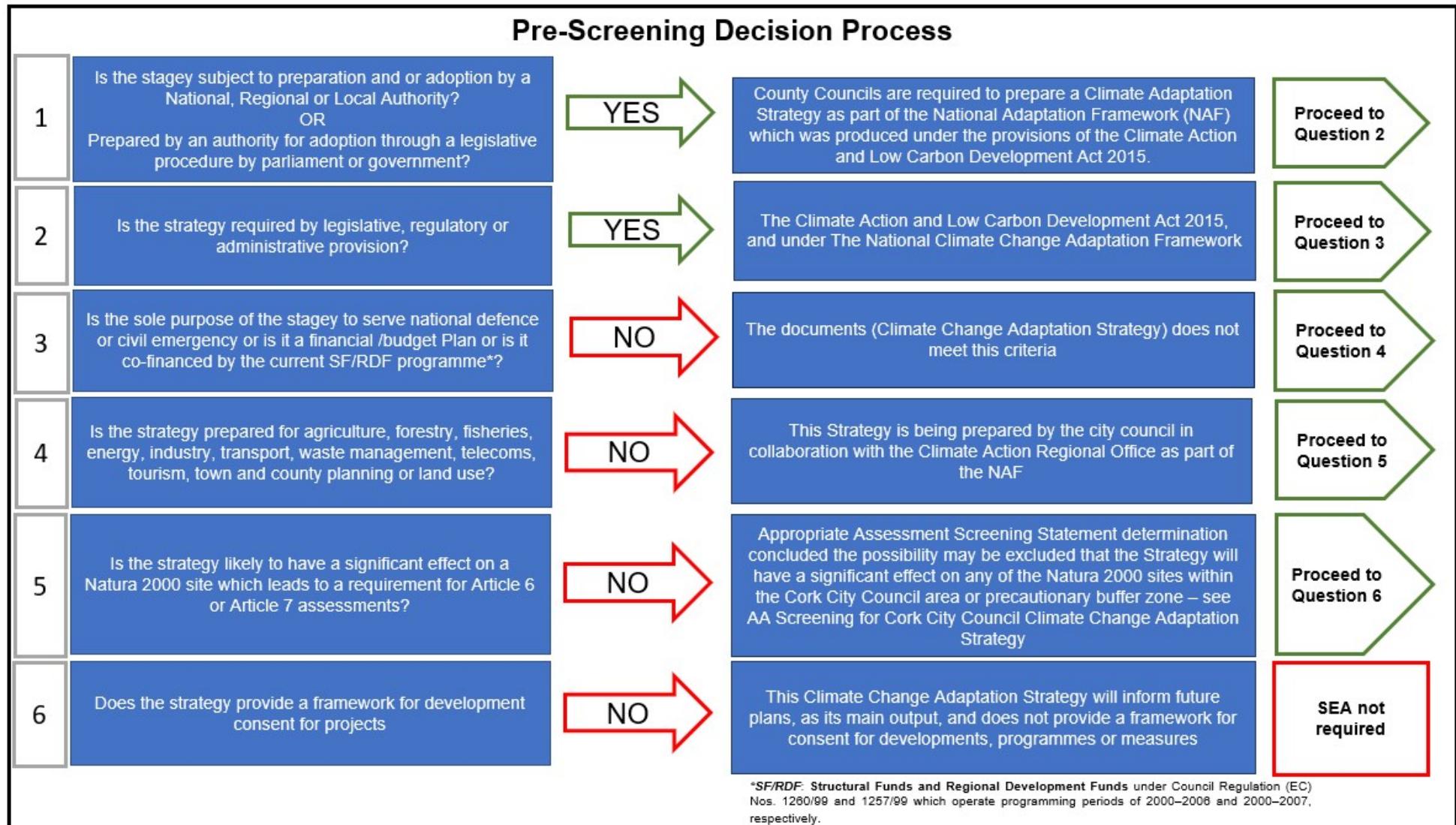


FIGURE 1 PRE-SCREENING DECISION PROCESS

## 4 SEA SCREENING DETERMINATION

The Climate Change Adaptation Strategy was screened using the criteria contained in Annex II of the SEA Directive. Table 2 and Table 3 below, details the screening assessment using the *criteria for determining the likely significance of effects* as set out in the SEA Directive, Annex II.

**TABLE 3 SCREENING DETERMINATION FOR ANNEX II (1.), CRITERIA FOR DETERMINING THE LIKELY SIGNIFICANCE OF EFFECTS**

The Characteristics of the Plan and Programmes having regard, in particular, to, the following criteria		Likely to have significant environmental effects
Criteria	Screening Determination	
The degree to which the plan or programme sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources.	<p>The purpose of this Climate Change Adaptation Strategy is to identify the risks to Cork City associated with climate change, and to set strategic goals, objectives and actions to adapt to these changes.</p> <p>Cork City Council's Climate Change Adaptation Strategy forms part of Ireland's national strategy for climate adaptation as set out in the National Adaptation Framework (NAF) which was produced under the provisions of the Climate Action and Low Carbon Development Act 2015.</p> <p>Cork City Council's Climate Change Adaptation Strategy, if adopted, will not set a framework for future development consent of projects, i.e. projects listed in both Annex I and Annex II of the Environmental Impact Assessment Directive.</p>	No
The degree to which the plan or programme influences other plans and programmes including those in a hierarchy;	<p>This Climate Change Adaptation Strategy will inform other future plans, as its main output, to ensure that Cork City Council's policies, strategies, plans, actions and measures being developed must be informed, take account and be aware of the need to adapt to the impacts of climate change.</p> <p>Future individual development policies, strategies, plans and projects must be considered under the SEA, EIA and/or AA processes.</p>	No
The relevance of the plan or programme for the integration of environmental considerations in particular with a view to promoting sustainable development;	As the Climate Change Adaptation Strategy is aimed at integrating climate change adaptation into Cork City Council's plans, strategies and management team's agendas, the climate change adaptation measures will be implemented via future plans.	No

	<p>This Climate Change Adaptation Strategy's main output is to ensure that all policies, strategies and plans for Cork City Council must be informed of the need to adapt to the potential impacts of climate change.</p> <p>Individual development policies, strategies, plans and projects must be considered individually under the SEA, EIA and/or AA process.</p>	
Environmental problems relevant to the plan or programme;	<p>The Climate Change Adaptation Strategy looks to integrate climate change adaptation into Cork City Council as a management function and/or an important criterion to be considering in developing Local Authority Plans or Actions. The climate change adaptation actions taken will be implemented via future plans as its main output is to ensure that all policies, strategies, plans and measures for Cork City Council must be informed of the need to adapt to the potential impacts of climate change.</p> <p>Individual development policies, strategies, plans and projects must be considered individually under the SEA, EIA and/or AA process.</p>	No
The relevance of the plan or programme for the implementation of Community legislation on the environment (e.g. plans and programmes linked to waste-management or water protection).	<p>As the Climate Change Adaptation Strategy is aimed at integrating climate change adaptation into identified Cork City Council's Plans and Strategies and future Plans and Strategies, with some specific actions to help raise awareness of climate change both within management team and the wider public in Cork City, these actions can support plans and programmes that are related to waste generation, management, flood resilience and protection.</p> <p>However, these climate change adaptation actions will be implemented via future plans as its main output is to ensure that all policies, strategies, plans and measures for Cork City Council must be informed of the need to adapt to the potential impacts of climate change.</p>	No

**TABLE 4 SCREENING DETERMINATION FOR ANNEX II (2.), CRITERIA FOR DETERMINING THE LIKELY SIGNIFICANCE OF EFFECTS**

<b>Characteristics of the Effects and of the Area Likely to be Affected, taking account of the following criteria</b>		<b>Likely to have significant environmental effects</b>
<b>Criteria</b>	<b>Screening Determination</b>	
The probability, duration, frequency and reversibility of the effects	Cork City Council's Climate Change Adaptation Strategy is designed to inform responses throughout the local authority to the effects of climate change, which is now inevitable. At this stage, based on current information, it is difficult to estimate the duration, or indeed its variability, but it is likely to be long term which justifies the need for an adaptation strategy such as the one being prepared. The adaptation strategy in its role to "climate-proof" existing plans, policies and activities of the Local Authority is an essential first step in dealing with climate change effects from a Local Authority perspective.	No
The cumulative nature of the effects	Changes in climate change are cumulative and work in combination. This can be seen where climatic factors combine and create what are called "compound events" where combined weather events may contribute to enhanced risk.	No
The transboundary nature of the effects	In order to deal with transboundary effects, Cork City Council's Climate Change Adaptation Strategy has included actions, for example, Objective 17 and Action 17.1 to <i>Liaise, collaborate and work in relevant partnership with the sectors in the delivery of the sectoral adaptation actions, as approved by Government, where they are relevant to the functions and activities of Cork City Council.</i>	No
The risks to human health or the environment (e.g. due to accidents)	Cork City Council's Climate Change Adaptation Strategy is designed to inform responses to the effects of climate change including working with other agencies to raising awareness of the impacts of climate change on communities (e.g. specific actions under the Citizen Safety, Health and Wellbeing theme)	No
The magnitude and spatial extent of the effects (geographical area and size of the population likely to be affected)	Areas of characteristics and cultural heritage within Cork City are provided with a level of protection from both planning policy and planning legislation. However, Cork City Council's Climate Change Adaptation Strategy is designed to inform responses	No

	throughout the local authority to the effects of climate change and does not identify specific areas for development.	
The value and vulnerability of the area likely to be affected due to:  - <i>special natural characteristics or cultural heritage;</i> - <i>exceeded environmental quality standards or limit values; and</i> - <i>intensive land-use.</i>	Cork City Council's Climate Change Adaptation Strategy is designed to inform responses throughout the local authority to the effects of climate change, and to incorporate adaptation measures into all plans and policy produced by the council. This strategy will not result in development plans or set a framework for future development, and as such will not result in changes to the landscape, land-use or exceed environmental parameters.	No
The effects on areas or landscapes which have a recognised national, community or international protection status.	Cork City Council's Climate Change Adaptation Strategy is designed to inform responses throughout the local authority to the effects of climate change and does not identify specific areas for development.  Any effects uncovered as part of this process will be considered in relation to the characteristics of the effects and of the area likely to be affected, and the process will have regard, in particular, to the criteria as listed, according to the legislation.	No

## 5 CONCLUSION

This SEA Screening Report was carried out in order to determine the need for a Strategic Environmental Assessment for Cork City Council's Climate Change Adaptation Strategy prepared under the National Climate Change Adaptation Framework. It has been concluded, based on the pre-screening check, and review against the environmental significance criteria as set out in Annex II of the SEA Directive, that a Strategic Environmental Assessment is not required. Furthermore, the purpose of this Climate Change Adaptation Strategy is to inform Local Authority policies, procedures and further plans on the need to incorporate climate change adaptation measures and it does not set out projects, plans or specific measures.

It is likely, that through the implementation of Cork City Council's Climate Change Adaptation Strategy, that there would be expected beneficial effects, as it aims to reduce risk from climate change. Specific actions in the strategy propose environmentally friendly adaptation measures, particularly actions falling from the objective under the Nature, Natural Resources and Cultural Infrastructure theme, for example, one objective under this theme is to *Identify potential ecological corridors and connectivity issues between areas. Identify the potential to open up culverted rivers and incorporate softer engineering solutions. Identify locations to create new habitats for native flora and fauna e.g. urban orchards, allotments, green roofs and walls, which will assist in negating the 'heat island effect'. Protect existing wetlands and identify new ones which may arise as a result of climate change. With the inventory of City Council-owned lands identify the capacity to contribute to quality green infrastructure and enhance biodiversity.*

## **APPENDIX 1 – ACTIONS PER THEME**

<b>Local Adaptation Governance and Business Operations</b>	
<b>No.</b>	<b>Actions</b>
1.1	Establish a Climate Action Steering Group with representatives from all the key functions of Cork City Council, to oversee the implementation of the actions of this climate change adaptation strategy. This Team will implement actions, report and review the progress of the strategy and will encourage local innovation.
1.2	Integrate climate action into Cork City Council Service Delivery Programmes and provide for its translation into Team Development Plans and Personal Development Plans, to enable actions to be directly pursued by all relevant business units.
1.3	Ensure that climate action is a regular standing item on the agenda of Senior Management Team (SMT) meetings and relevant Strategic Policy Committees (SPCs), with bi-annual progress reports submitted to the Climate Action Steering Group, as required.
1.4	Liaise with the Climate Action Regional Office (CARO) and provide appropriate progress reports. Assist the local CARO in its development as a 'Centre of Excellence' for the region.
1.5	Ensure that climate action is a key consideration in the assessment of all planning applications and provide guidance on climate action to developers in Cork City.
1.6	Ensure that climate action is referenced to and aligned with the UN Sustainable Development Goals (SDGs), especially SDG 13: Climate Action.
1.7	Building on adaptation planning actions set out in this strategy, support and complement the practical implementation of actions arising from the National Climate Action Plan – to Tackle Climate Breakdown (as revised and updated annually), across the broad range of functions of the local authority to achieve the national climate ambition i.e. decarbonisation targets to 2030 and objectives to 2050.
1.8	Explore with the relevant Government Department(s) the necessity of appointing a Climate Action Officer and strengthening other staff resources within the existing Climate Action Unit. This Officer and Unit will have responsibility for co-ordinating and delivering climate action- related activity within Cork City Council's Administrative area.
2.1	<p>The Climate Action Steering Group will be tasked with managing and overseeing the effective mainstreaming of climate adaptation measures into all plans, projects, programmes, strategies and policies of Cork City Council:</p> <ul style="list-style-type: none"> <li>(a) build and strengthen partnerships and promote inter-departmental communications and co-operation;</li> <li>(b) compile a list of all plans, projects, strategies and policies, including expected review/update timelines and ensure that climate action considerations are integrated into all reviews.</li> <li>(c) provide a framework for climate action projects to be included into future service delivery programmes;</li> <li>(d) report to SMT on progress; and</li> <li>(e) include climate adaptation within the following:</li> </ul> <ul style="list-style-type: none"> <li>• Corporate Plan</li> <li>• City Development Plan</li> <li>• Biodiversity Plan</li> <li>• Heritage Plan</li> <li>• Severe Weather Plan</li> <li>• Winter Maintenance Plan</li> <li>• Roads Programme</li> <li>• Housing Strategy</li> <li>• Local Economic and Community Plan</li> <li>• Tourism Strategy</li> <li>• Health &amp; Safety Plan</li> <li>• Energy Management Plan</li> <li>• Sustainable Energy and Climate Action Plan (SECAP).</li> <li>• Cork Metropolitan Area Draft Transport Strategy 2040 – CMATS</li> <li>• Cork City Cycling Strategy</li> <li>• Cork Cycle Network Plan</li> </ul>

2.2	Ensure through the delivery of all services, functions and activities that there is more effective implementation of relevant regulations, policies, plans and strategies with a role in climate adaptation and environmental protection.
3.1	<p>Evaluate Cork City Council's activities that may be affected by climate change. The risk assessments will include:</p> <ul style="list-style-type: none"> <li>• Collection and collation of historic weather event data for the Cork City Council region;</li> <li>• Collection and evaluation of international and national data on projected climate patterns and the potential risks to Cork City; and</li> <li>• Compile a list of Cork City Council's assets that are vulnerable to climate change. Examine the current Sustainable Energy and Climate Action Plan (SECAP) for existing data.</li> </ul>
3.2	<p>Develop a system to document, monitor and analyse data on the impact of extreme weather events on Cork City Council. This will identify the actions required to adapt quickly and effectively to extreme weather events and to restore public services, taking into account the following baselines:</p> <ul style="list-style-type: none"> <li>• nature and extent of extreme weather events and its impact on public service delivery;</li> <li>• impact of extreme weather events on Cork City Council's assets;</li> <li>• staff resources required (and any deficits identified) to deal in a resilient way with all aspects of the impact of extreme weather events;</li> <li>• financial implications of extreme weather events;</li> <li>• number of days of closure of Cork City Council buildings and facilities;</li> <li>• staff working-days lost, including lost activities due to reassignment or loss of resources;</li> <li>• number of activations of Severe Weather Assessment Team;</li> <li>• number of emergency road closures;</li> <li>• number of emergency call-outs, plus representations and calls for assistance from elected representatives, customers, other sectors and members of the public;</li> <li>• number (and dates) of call-outs to deal with wild fires;</li> <li>• number of Health and Safety incidents;</li> <li>• number of kilometres of road treated in freezing and high temperature conditions;</li> <li>• the nature, extent and cost of service provided to or obtained from other sectors; and</li> <li>• the proportion of the impacts that is deemed to derive from climate change.</li> </ul>
4.1	<p>Develop Business Continuity Plans to identify and address specifically the impacts associated with extreme weather events on all functions/services of Cork City Council and to explore potential opportunities to increase resilience. This will involve:</p> <ul style="list-style-type: none"> <li>• preparation for and minimisation of the impacts of service disruption;</li> <li>• assessment of Cork City Council's back-up systems infrastructure (including power outage back-up procedures) to ensure resilience;</li> <li>• assessment of the impact of climate events on outdoor working/ site visits and any impacts on deadlines and levels of service provision;</li> <li>• assessment of staff working environments during extreme weather events, and a review of potential ways to maintain safe working conditions and the provision of alternative working locations; and</li> <li>• development of plans for staff deployment and availability due to travel restrictions.</li> </ul>
4.2	<p>Develop a Communications Contingency Plan to identify essential key staff to be able to access all essential council systems remotely, so as to reduce or eliminate impacts on statutory deadlines and backlog. This will include:</p> <ul style="list-style-type: none"> <li>• maintaining the internal communication protocol for extreme weather events to increase staff awareness of potential risk to safety, and to ensure all staff travel only in safe conditions;</li> <li>• development of internal back-up communication systems to ensure communication for emergency responders is maintained in the event of disruption to the main communication system(s); and</li> <li>• development of external back-up communication systems to ensure effective communication with external partners during severe weather events.</li> </ul>

5.1	Develop a climate change training programme to educate staff and elected members on the implications of climate change and how to effectively address the effects of climate change on Council operations and services and to build capacity within Cork City Council.
5.2	(a) Assist in building resilience and capacity within local businesses and communities to enhance the overall response to extreme weather events taking into consideration climate equality and justice. (b) Develop an education/awareness programme for business and community organisations to equip them with understanding of risks and how to build longer term resilience.
5.3	Support existing extreme weather event response arrangements and investigate further deployment of early warning systems (e.g. Flood Early Warning System (FEWS)), along with reviewing and collating information on existing early warning systems.
5.4	Investigate the potential for technology-based solutions for the coordination of responses to climate events in the areas of ICT and GIS.
6.1	Identify, source and leverage funding streams for the implementation of climate change actions (including both adaptation and mitigation).
6.2	Support, encourage and develop the move to digital services and exploit new ideas which seek to capture opportunities associated with the environmental and technological advances that support climate actions. An example would be leveraging the progress achieved during the Smart Cities project.
6.3	Collaborate and work with businesses in seeking new ideas to reduce the impact of climate change on Cork city.

Infrastructure and Built Environment	
No.	Actions
7.1	<p>Develop a system to document, monitor and analyse roads and transport infrastructure that is vulnerable to the impacts of climate change and severe weather events including roads, bridges, walking and cycling facilities, rail and bus networks, the airport and the seaport. The system shall take into account the following:</p> <ul style="list-style-type: none"> <li>• review information available from past events &amp; liaise with any existing asset management systems;</li> <li>• compile a vulnerable infrastructure inventory to aid works prioritisation and inform route prioritisation plans;</li> <li>• establish a procedure for structural integrity assessments of infrastructure after extreme weather events;</li> <li>• communicate with external stakeholders on assets that would be required during an extreme weather event e.g. snow ploughs, grit and salt, mobile emergency signage and lighting, back-up electricity generators, mobile flood barriers, pumps etc. ;</li> <li>• integrate climate considerations into the design, planning and construction of all transport infrastructures;</li> <li>• develop a transport plan for a severe weather event and distribute to relevant external stakeholders; and</li> <li>• integrate climate change adaptation (and mitigation) measures into the design, planning and construction of all roads and transport infrastructure, with a priority given to nature-based solutions e.g. Sustainable Drainage Systems (SuDS).</li> <li>• Home or hub or remote working should be promoted and instituted by relevant organisations and firms. This will help to reduce congestion and carbon emissions associate with using commuting to work, as well as a reduction in particulate matter impacting negatively on air quality.</li> <li>• Better promotion of the 'Public Transport Tax Initiative' scheme.</li> <li>• Support the increased take-up of school children and students using public transport.</li> </ul>
8.1	<p>Develop a system, in the context of climate vulnerabilities, for the management of capital assets, including buildings, housing stock, fleet, recreation areas and public amenities:</p> <ul style="list-style-type: none"> <li>• review information available from existing asset management systems;</li> <li>• analyse information from past events and the impacts of climate change for future events;</li> <li>• compile a vulnerable infrastructure inventory to aid works prioritisation;</li> <li>• establish a procedure for structural integrity assessments of assets after extreme weather events;</li> <li>• integrate climate change (adaptation and mitigation) measures into the design, planning and construction of all capital projects, with priority given to nature-based solutions; and</li> <li>• analyse the suitability of the Council's fleet to operate during extreme weather events.</li> </ul>
8.2	Identify, resource and install new technologies (or update existing) in council buildings/housing assets to reduce the impacts of climate change on staff, customers, the general public and residents.
8.3	Review the Social Housing Tenant's Handbook to increase awareness of extreme weather events and provide climate change resilience information to the tenants.
8.4	Support the rollout of electric vehicles and electric vehicle-charging infrastructure and the rollout of compressed natural gas (CNG) usage and corresponding infrastructure in Cork City, beginning with Cork City Council's fleet.
8.5	Examine ways to reduce/avoid unnecessary staff travel and promote initiatives to promote more sustainable forms of transport for all Cork City Council staff. Examine the findings of the 'Smarter Travel Workplace' 2019 Staff Travel Survey (currently on-going) to deliver positive action amongst staff
8.6	Promote cycling and walking to support a greater uptake of active travel in Cork city, thus reducing carbon emissions and improving air quality. Promote the modal shift away from private cars through landuse planning policy, development management and local initiatives and promotions. Continue to support Mobility Management Initiatives and other initiatives which support greater use of walking, cycling and public transport including Bike Week, European Mobility Week and other related promotions. Use the 'Cork City Cycling Strategy' and the 'Cork Cycle Network Plan' to help deliver this action.

<b>Landuse and Development</b>	
No.	<b>Actions</b>
9.1	<p>Identify, integrate and implement climate change actions into the Development Plan and Local Area Plans.</p> <p>Integrate climate action as a guiding principle and strategic objective, thus tailoring planning policies to reduce the vulnerability of Cork city to the impacts of climate change, by:</p> <ul style="list-style-type: none"><li>• enhancing the role of the natural environment to promote climate adaptation by promoting nature-based solutions e.g. green infrastructure;</li><li>• continuing to take a minimised risk-based approach to development in areas at risk of flooding (coastal, tidal, fluvial, pluvial and groundwater);</li><li>• promoting climate resilient designs and materials; and</li><li>• promoting energy efficiency and renewable energy solutions and water conservation measures in new developments and promote green roofs, walls and courtyards.</li></ul>
9.2	Engage with energy and service providers to ensure that energy infrastructure and services are resilient to the impacts of climate change.
9.3	<p>(a) Ensure that climate change is a key consideration in selecting locations for future developments and that this is reflected in land use zoning policy.</p> <p>(b) In the development of policy and the planning and provision of green infrastructure, ensure appropriate buffer zones are maintained and protected to avoid potential impacts on designated habitats or protected species and habitats, and to protect and enhance wider biodiversity.</p>

<b>Drainage, Water and Flood Management</b>	
<b>No.</b>	<b>Actions</b>
10.1	<p>Develop a flood risk management system for council assets and services:</p> <ul style="list-style-type: none"> <li>• analyse information from past events and the impacts of flooding for future events;</li> <li>• compile an inventory of vulnerable assets and services; and</li> <li>• review current flood maps of areas vulnerable to flooding and indicate flooding levels for a range of future scenarios.</li> </ul>
10.2	Work with the Office of Public Works (OPW) and other organisations to share information in relation to flood risk and in the development of major and minor flood protection and flood proofing schemes throughout Cork city.
10.3	Ensure that flood event emergency response plans are reviewed on a regular basis to reflect the degree of flood risk.
10.4	<p>(a) Identify natural floodplains in Cork city and incorporate nature-based solutions in any enhancement works where possible.</p> <p>(b) Consider and explore the use of natural water retention measures in certain suitable areas as a method of managing flood risk, improve water quality, enhance biodiversity, management of soil and sediment and to provide for the creation of new or additional amenity areas. Liaise and collaborate with the OPW and other stakeholders engaged in research and pilot projects to develop knowledge and capacity on such measures.</p>
10.5	Identify areas susceptible to isolation as a consequence of flooding and establish measures to address this issue. Use future scenario flood maps to assist in the identification of potentially vulnerable communities and assets.
10.6	<p>Review the current drainage systems for which Cork City Council is responsible for, by:</p> <ul style="list-style-type: none"> <li>• compiling an inventory of existing drainage districts;</li> <li>• identify areas that are susceptible to surface water flooding; and</li> <li>• adapting existing maintenance plans, taking into account impacts from climate change such as increased siltation and plant growth, and increased rainfall.</li> </ul>
10.7	Develop a system for the upgrade of drainage networks, including the separation of sewer and surface water to increase resilience capacity.
10.8	Investigate the use of smart monitoring in the management of the drainage systems for which Cork City Council is responsible for.
10.9	Continually review flood risk data and take into account increased flood extents and depths in the design, planning and build/delivery of new infrastructure by the council to avoid potential/future flood prone areas and ensure that new infrastructure is resilient to climate change risks.
11.1	Support Irish Water in the provision of treated water from major water treatment plants during extreme weather events.
11.2	Ensure the emergency services have access to water during extreme weather events (snow, frost, ice and drought).
11.3	Pilot a public drinking water fountain at an appropriate location in a public park area and/or public realm area to provide quality water supply and contribute to a reduction in plastic waste. Explore the feasibility of expanding to a network if successful and liaise and collaborate with Irish Water as appropriate.
12.1	Support Irish Water where possible in identifying public drinking water sources vulnerable to climate change. Support the implementation of source protection and or the identification of alternative sources, in order to maintain water quantity and quality levels.
12.2	Support Irish Water where possible to identify the impacts of power outages of varying durations on specific water and wastewater scheme operations. Support the identification of critical and vulnerable receptors.
12.3	Liaise, support and work with Irish Water in the development, conservation and upgrade of the water supply systems so as to ensure Cork city has an adequate supply of water to address climate change demands.

12.4	Liaise, collaborate and support agencies responsible for the management of water-courses in their employment of River Restoration Techniques and Floodplain Restoration Techniques aimed at improving ecological status of waterbodies.
12.5	Further develop collaboration with State bodies, and other relevant Bodies responsible for the management of water courses including (but not limited to): <ul style="list-style-type: none"><li>• OPW</li><li>• River Basin Management LAWPRO</li><li>• Waterways Ireland</li><li>• Irish Water</li><li>• Irish Farmers Association</li><li>• Inland Fisheries</li><li>• ESB</li><li>• Other</li></ul>

<b>Nature, Natural Resources and Cultural Infrastructure</b>	
<b>No.</b>	<b>Actions</b>
13.1	Support and enhance a native shrub and tree planting programme for Cork City in conjunction with an awareness campaign in the context of climate adaptation. The tree planting programme will include the protection of existing trees, increasing tree cover, identifying new sites for additional tree planting for the enhancement of the natural environment and Biodiversity and the protection of trees on private land. Support the planting of native species.
13.2	Review roadside hedge maintenance programmes in conjunction with landowners with cognisance of the need to maintain ecological corridors and linkages forming part of the green infrastructure within the city.
13.3	Support and enhance a programme for monitoring and controlling the spread of alien invasive species. Alien invasives may become more of a problem due to climate change, thus increasing threats to native species, in addition to causing structural damage to infrastructure.
13.4	<p>(a) Support and promote areas that contribute positively towards enhanced biodiversity and implement the national pollinator plan, paying attention to the threats from climate change e.g. seasonal disruption, increased severe weather events.</p> <p>(b) Explore ways to increase the range of plant species with the aim of increasing food sources and habitats for pollinators</p> <p>Examine ways to reduce the impact of a longer growing season on lifecycles of bees and other pollinators in terms of food availability and life cycles mismatch</p> <p>(c ) In collaboration with communities, and as part of the green schools campaign and in conjunction with Lifetime Lab, identify suitable new sites for the implementation of the Pollinator Plan and to ensure continued maintenance and upkeep.</p>
13.5	<p>Identify potential ecological corridors and connectivity issues between areas. Identify the potential to open up culverted rivers and incorporate softer engineering solutions.</p> <p>Identify locations to create new habitats for native flora and fauna e.g. urban orchards, allotments, green roofs and walls, which will assist in negating the 'heat island effect'.</p> <p>Protect existing wetlands and identify new ones which may arise as a result of climate change.</p> <p>With the inventory of City Council owned lands identify the capacity to contribute to quality green infrastructure and enhance biodiversity.</p>
13.6	<p>Protect natural resources through waste prevention and recycling. Support national and regional initiatives e.g. the policy actions of the Regional Waste Management Plan, the EPA's Local Authority Prevention Network and Local Agenda 21.</p> <p>Promote behavioural change in relation to the use of natural resources through initiatives as the 'Waste prevention grant scheme'.</p> <p>Work with communities to enable them to develop an appreciation of natural resource protection, thus highlighting the link with climate change for example, Green Spaces for Health and Community Gardens</p> <p>CCC supports employing a permanent full time biodiversity officer in each LA, with additional biodiversity staff recruited by LAs depending on their population/jurisdictional area.</p>
13.7	Adopt 'Green Public Procurement', moving from 'most economically advantageous' to a 'life-cycle costing model.'

	<p>Collaborate with the National Parks and Wildlife Service (NPWS) and research organisations (UCC, CIT, Marine Institute) in the review of biodiversity plans and habitat conservation strategies, and projects to identify risks from adverse climate change impacts.</p>
14.1	<p>Work with communities and schools to create and implement local Biodiversity Action Plans.</p>
14.2	<p>Given the wider environmental benefits of green infrastructure, such as microclimate benefits including providing shade to alleviate heat stress, supporting urban biodiversity, water retention, and flood alleviation etc, develop a green infrastructure strategy and associated action plan, including:</p> <ul style="list-style-type: none"> <li>• the research and mapping of areas considered beneficial for use as local carbon offsets through carbon sequestration in conjunction with the relevant agencies; and</li> <li>• the integration of nature-based solutions in all City Council development / works (roads, housing, architecture, parks and water infrastructure).</li> </ul>
15.1	<p>Develop a system to document, monitor and deliver actions on reducing the impacts of climate change on Cork City Council's natural and built heritage and cultural assets, including the following:</p> <ul style="list-style-type: none"> <li>• gather baseline data in order to monitor change e.g. map existing green areas, carry out habitat surveys;</li> <li>• create a risk register for the natural and built heritage and cultural assets; and</li> <li>• introduce 'natural capital accounting' which gives natural heritage a monetary value due to its association with tourism and overall health and wellbeing.</li> </ul>
15.2	<p>Raise awareness and support positive behavioural change among staff, schools, community, homeowners and developers. Actions to include:</p> <ul style="list-style-type: none"> <li>• training and workshops;</li> <li>• information materials (brochures, educational packs, information boards); and</li> <li>• increased use of social media and attendance at events and festivals.</li> </ul>

<b>Citizen Safety, Health and Wellbeing</b>	
<b>No.</b>	<b>Actions</b>
16.1	<p>Develop public awareness campaigns to increase knowledge of and encourage behavioural change around climate change and extreme weather events. Activities to include:</p> <ul style="list-style-type: none"> <li>• training and workshops;</li> <li>• information materials (brochures, educational packs, information boards);</li> <li>• increased use of social media; and</li> <li>• attendance at events and festivals.</li> </ul>
16.2	<p>Develop and implement a programme to enhance the capacity of citizens, businesses and communities to respond to and recover from extreme weather events with specific aims to:</p> <ul style="list-style-type: none"> <li>• provide assistance where possible to vulnerable communities to develop a stronger facilitating role for mitigating risks;</li> <li>• provide advice on the risk of extreme events affecting their locality;</li> <li>• devise adaptation actions to enhance preparedness and reduce dependency on local authority emergency responses; and</li> <li>• provide support to develop appropriate resilience arrangements to enable response and recovery.</li> <li>• Integrate key considerations around climate equality and justice</li> </ul>
16.3	<p>Raise awareness of the impacts of climate change and the ways for citizens, businesses and communities to respond appropriately and to increase resilience to these impacts. This should include:</p> <ul style="list-style-type: none"> <li>• develop and implement a behavioural change plan for citizens, businesses and communities to change behaviours, understand and better deal with climate change and extreme weather events;</li> <li>• provide and promote information on extreme weather event preparedness, including property security and safety;</li> <li>• highlight health issues related to extreme weather events;</li> <li>• raise public safety awareness;</li> <li>• raise water safety awareness for unsupervised watercourses in local areas; and</li> <li>• promote local resources to adapt to extreme weather events e.g. road salting.</li> <li>• Use of flood mapping outputs, National Catchment Flood Risk Assessment and Management (CFRAM) programmes and other such climate related programmes in any public awareness campaigns.</li> <li>• Work to provide for climate change adaptation co-benefits (opportunities) that provide benefits for the environment through decreasing greenhouse gas emissions or reducing pressures on resources, and promote benefits for communities</li> </ul>
16.4	Explore ways Cork City Council can help older, vulnerable and isolated people/communities to become more climate resilient.
16.5	Collaborate with third level and other research facilities to investigate the potential of climate action technologies and their application in Cork city, in conjunction with innovation and research funding at national and EU level.

<b>Partnerships with other Sectors and Agencies</b>	
<b>No.</b>	<b>Actions</b>
17.1	Liaise, collaborate and work in relevant partnership with the sectors in the delivery of the sectoral adaptation actions, as approved by Government, where they are relevant to the functions and activities of Cork City Council.
17.2	Liaise, collaborate and support local organisations and agencies in the pursuit of initiatives and efforts to reduce carbon emissions, build social cohesion and community resilience against the local impacts of climate change and in working towards climate justice