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CONSULTANTS IN ENGINEERING, ENVIRONMENTAL SCIENCE & PLANNING

LOCAL AUTHORITY CLIMATE ACTION PLAN

SEA Environmental Report

Prepared for:

Cork City Council

Comhairle Cathrach Chorcaí
Cork City Council

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SEA Environmental Report for the Local Authority Climate Action Plan 2024-2029 for Cork City Council

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Abstract: Fehily Timoney and Company is pleased to submit this SEA Environmental Report for the LACAP 2024-2029 to Cork City Council for stakeholder and public consultation.

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NON-TECHNICAL SUMMARY

Introduction

This is the Non- Technical Summary of the environmental report for the Strategic Environmental Assessment (SEA) of the Cork City Council (CCC) Draft Local Authority Climate Action Plan (herein referred to as the 'Plan' or 'LACAP') 2024-2029 for the Cork functional area. The purpose of this SEA is to identify and evaluate the likely significant environmental effects of implementation of the LACAP.

Background

Section 16 of the Climate Action and Low Carbon Development (Amendment) Act 2021 (herein referred to as the 'Climate Act') sets out the provisions governing the establishment and operation of a LACAP. The broad purpose of a LACAP will be to define adaptation and mitigation measures at local level to support the reduction of Greenhouse Gas (GHG) emissions within a local authority as an organisation and throughout the local community. LACAPs shall be implemented over a five-year period. Given the scale and nature of the LACAP, environmental effects are likely, and therefore SEA is required to be undertaken on the Plan.

Approach to SEA

The SEA process can be defined by four stages, all of which include some level of consultation with stakeholders and the public. These stages are defined as:

- Stage 1 – Screening: deciding whether an SEA is required, or not.
- Stage 2 – Scoping: establishing the spatial and temporal scope of the SEA and a decision-making framework that can be used to evaluate impacts.
- Stage 3 – Identification, Prediction, Considerations of Alternatives, Evaluation and Mitigation of Potential Impacts.
- Stage 4 – Consultation, Revision and Post-Adoption. This includes the implementation of statutory SEA monitoring.

The SEA process runs in parallel with the Appropriate Assessment (AA) process, which an assessment process focusing on the potential effects of a plan or project on sites designated for nature protection known as ‘European Sites.’

The Plan

The CCC LACAP is an action plan which defines local level climate adaptation and mitigation measures to support the reduction of GHG emissions within the local authority as an organisation and throughout the local community in the local authority's functional area.

LACAP should have an inward and outward focus. Climate action in the plan should be defined by local authorities for their own organisation which they have full control over (i.e., the inward focus), and for communities in their functional area, which they exert a strong influence over in partnership with relevant stakeholders (i.e., the outward focus).

The plan period for the Draft LACAP will be from 2024 to 2029. The Council must review and update the plan after a period of 5 years.

The LACAP has been developed in accordance with the requirements of Section 16 of the Climate Act. It must be consistent with the Climate Action Plan 2023 (CAP23) and the National Adaptation Framework. Local authority Development Plans must also be aligned with their LACAP.

The overall vision of the Draft LACAP for CCC is to meet the environmental, economic and social challenges of climate change. Through Just Transition, the city will adapt to a decarbonised, climate neutral, resilient and biodiversity rich future.

Through the development and implementation of specific, action-focused, time-bound and measurable actions, the Draft LACAP will achieve the following strategic outcomes (as defined by the Department of the Environment, Climate and Communications Guidelines for Local Authority Climate Action Plans):

1. Provide a strong emphasis on a place-based approach to climate action, delivering a better understanding of greenhouse gas emissions and climate-related risks at a local level, while addressing context-specific conditions and support for locally tailored policy making.
2. Deliver and promote evidence-based and integrated climate action by way of adaptation and mitigation measures, centred around a strong understanding of the role and remit of the local authority on climate action.
3. Translate and provide strategic direction at local and community levels on the delivery of the national climate objective which is seeking to curb further global warming and to transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy by no later than the end of 2050.

The Environmental Baseline

An evaluation and a characterisation of the current state of the environment likely to be affected by the Draft LACAP has been undertaken to inform the SEA process.

The following Environmental Components were considered during this evaluation:

- Population and Human Health
- Biodiversity, Flora & Fauna
- Landscape, Seascape & Visual Amenity
- Cultural Heritage - Archaeology & Architectural
- Soils
- Land Use
- Air Quality & Noise
- Water
- Material Assets
- Tourism & Recreation
- Climate Change

For clarity and succinctness, and to aid the understanding of non-technical readers, only a brief and non-technical summary of the key issues associated with the environmental baseline relevant to the Draft LACAP has been provided here.

Section 4 of the main body of the SEA Environmental Report contains further detail on baseline environmental characteristics, including a variety of details environmental mapping, for those who wish to develop a more in-depth understanding of the environmental baseline. Section 7 of the main body of the SEA Environmental Report contains a summary of the evaluation of the environmental effect of the implementation of the Draft LACAP, including a summary of the various positive impacts, negative impacts, and cumulative impacts associated with plan implementation.

Population and Human Health – Key Issues relating to the Draft LACAP

- Recreational and development pressure on habitats and landscapes.
- Population and development growth will potentially influence the energy requirement within the city.
- Population and development growth will potentially influence the decarbonising zone.
- Potential visual effect of green infrastructure development.

Biodiversity, Flora and Fauna – Key Issues relating to the Draft LACAP

- Route selection and classification criteria are a key consideration in the development of blueways and greenways within the Draft LACAP due to the largely linear nature of these developments.
- The potential for effects on non-designated biodiversity features e.g. important habitats and species outside designated sites - particularly with regard to fragmentation, barriers to movement and displacement.
- The potential for effects on protected areas: National and European sites (e.g. SAC, SPAs, RAMSAR), National sites (e.g. NHAs) and other Natural Heritage Sites and Conservation Interest Sites e.g. refuge for fauna or flora, wildfowl reserves.
- The potential to spread invasive species.
- The potential for biodiversity enhancement.

Landscape, Seascape & Visual Amenity – Key Issues relating to the Draft LACAP

- Effects of green infrastructure (i.e. blueways, greenways) and renewable energy developments on areas of designated landscape quality and scenic views etc.
- Sensitivity of the landscape to change from green infrastructure development.

Cultural Heritage – Key Issues relating to the Draft LACAP

- The potential impact of the development of green infrastructure on archaeological and architectural heritage.
- The potential impact of building energy upgrade works on built and cultural heritage.

No existing conflicts with legislative objectives governing archaeological and architectural heritage have been identified

Soils – Key Issues relating to the Draft LACAP

- Potential for impacts on soil resources and offshore sediment transport.
- Potential impacts to soils (land) vulnerable to erosion.
- Potential for unearthing contaminated material.

Land Use – Key Issues relating to the Draft LACAP

- Potential constraints on other sectors such as agricultural, forestry and fisheries, primarily related to construction and operation of infrastructure projects (i.e. solar farms, blueways) associated with the Draft LACAP.

Air Quality and Noise – Key Issues relating to the Draft LACAP

- Blueway developments, particularly during the construction phase, may have a temporary negative impact on air quality and create noise pollution.
- Renewable energy developments may have impacts on the receiving air or noise environment, particularly towards sensitive receptors which are in close proximity.

Water – Key Issues relating to the Draft LACAP

- Potential pressures and impacts on water body status from the construction of renewable energy and blueway projects i.e. increased sedimentation, groundwater recharge and accidental spillages.

Material Assets – Key Issues relating to the Draft LACAP

- Disruptions to existing transport infrastructure through the development of alternative options such as active travel routes could occur.
- Demands for increased renewable infrastructure and associated connection networks.
- Effects on sensitive receptors with increased demands for active travel/green/renewable infrastructure, in particular during the construction phase.
- The potential for effects on existing green and blue infrastructure and key ecological corridors from inappropriate development.

Tourism and Recreation – Key Issues relating to the Draft LACAP

- Green infrastructure development may have the potential to restrict or reduce the quality of resources important for recreation and/or tourism including angling facilities, boating activities and/or associated resources.
- The promotion or development of blueways and greenways could add additional loading pressures in terms of visitor interactions at sensitive areas such as trampling, disturbance, erosion, littering etc.

Climate Change – Key Issues relating to the Draft LACAP

- The Draft LACAP will contribute to the targets, set out in the Climate Action Plan 2023.
- The potential impact of changes in climate including flooding and temperature increases should be factored into the Draft LACAP.

Strategic Environmental Objectives

The SEA Directive states that an SEA should also look at *'the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation.'* The identification of environmental protection objectives relevant to a plan provide the basis for evaluating the significance of impacts during the SEA process. All environmental protection objectives relevant to the Draft LACAP have been identified.

Strategic Environmental Objectives (SEOs) are methodological measures which facilitate the development of targets against which the environmental effects of the Draft LACAP can be tested. SEOs are based on wider environmental protection objectives on local, regional, national, European and international level that are relevant to CCC's Draft LACAP. They are high-level in nature and set strategic goals for improvement.

All SEOs applicable to the Draft LACAP are presented in the table below.

Strategic Environmental Objectives

Environmental Component	SEO Code	Strategic Environmental Objective
Overall	O1	Ensure, where appropriate, that lower-level plans and projects contribute to overall environmental monitoring processes within the City.
Population & Human Health	PHH1	Avoid or, minimise impacts to population and human health.
	PHH2	Ensure the Decarbonising Zone avoids and minimises impacts to the existing economic activities within the area and does not compromise/conflict with existing land use objectives.
Biodiversity, Flora & Fauna	B1	Ensure Climate Action does not conflict with biodiversity protection, restoration and rehabilitation.
	B2	Ensure compliance with Habitats and Birds Directives with regard to protection of European Sites and Annexed habitats and species.[1]
	B3	Support Article 10 of the Habitats Directive with regard to the management of features of the landscape which - by virtue of their linear and continuous structure or their function as stepping stones (designated or not) - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species.
	B4	To avoid or minimise significant impacts on semi-natural habitats, species, environmental features or other sustaining resources in designated national sites and to comply with the Wildlife Acts 1976-2012 with regard to listed species.
	B5	Go beyond biodiversity protection to deliver biodiversity enhancement, wherever possible, in response to the biodiversity emergency.

[1] 'Annexed habitats and species' refer to those listed under Annex I, II & IV of the EU Habitats Directive and Annex I of the EU Birds Directive.

Environmental Component	SEO Code	Strategic Environmental Objective
Landscape, Seascape & Visual Amenity	L1	Avoid or minimise impacts on statutory landscape designations defined in the CDP.
	L2	Avoid or minimise adverse visual effects on residential receptors or other sensitive visual receptors.
Cultural Heritage - Archaeology & Architectural	CH1	Avoid impacts upon archaeological heritage (including entries to the Record of Monuments and Places (RMP)) and architectural heritage (including entries to the Record of Protected Structures (RPS) and National Inventory of Architectural Heritage (NIAHs)).
Soils	S1	Avoid or minimise effects on mineral resources or soils.
Land Use	LU1	Avoid or minimise effects on existing land use.
Air Quality and Noise	AQN1	Increase the number of people travelling to work or school via public transport or by non-mechanical means.
	AQN2	Avoid or minimise effects on local air quality.
	AQN3	Avoid or minimise adverse noise impacts.
Water	W1	Maintain and/or improve, the quality and status of surface waters.
	W2	Maintain and/or improve, the chemical and quantitative status of groundwaters.
	W3	Prevent impact upon the WFD status of surface waters and groundwater in line with the requirements of the WFD.
	W4	Comply as appropriate with the provisions of the Flood Risk Management Guidelines.
	W5	Prevent impact upon drinking water quality.
Material Assets	MAI1	Avoid or minimise effects on built/amenity assets and infrastructure.
	MAI2	Avoid or minimise effects on effects upon existing and (where known) planned infrastructure.
	MAI3	Promote sustainable transportation.
	MAI4	Promote sustainable waste management.
	MAI5	Promote sustainable water use and drainage management.
Tourism & Recreation	TR1	Avoid or minimise effects upon tourism and recreation amenities.
Climate Change	CF1	Delivery of the necessary action to support the national target of 80% electricity from renewable sources by 2030.
	CF2	Actively support the delivery of all national climate policy as appropriate to the city with the prioritisation and acceleration of evidence-based measures.
	CF3	CF3: Assist in the delivery of the climate neutrality objective at local and community levels.
	CF4	Deliver a Decarbonising Zone (DZ) within the local authority area to act as a test bed for a range of climate mitigation and adaptation measures in a specifically defined area through the identification of projects and outcomes that will assist in the delivery of the National Climate Objective.
Inter-relationships	IR1	Maintain and improve the health of people, ecosystems and natural processes Actively seek to integrate opportunities for environmental enhancement during adaptation to climate change

Description and Evaluation of Plan Alternatives

The SEA Directive requires that reasonable alternative means of achieving the strategic goals of the Draft LACAP (taking into account the objectives and the geographical scope of a plan or programme) are identified, described and evaluated for their likely significant effects on the environment. Such reasonable alternative must be realistic and capable of implementation. Reasonable alternatives will be assessed against the Strategic Environmental Objectives (SEOs) established for the aspects of the baseline environment which are likely to be significantly affected by the Draft LACAP.

The underpinning goal of the reasonable alternative evaluation process is to ensure that the selection of preferred alternatives by the Local Authority is informed by environmental considerations.

The following reasonable alternatives to the Draft LACAP were identified:

- Alternative 1 - The Pareto Approach: Prioritise reducing GHG emissions from largest GHG emitting sectors to mitigate against climate change impacts.
- Alternative 2 - The Holistic Approach: Adopt a multi-pronged approach and focus on a range of priority areas to mitigate against and adapt to climate change impacts.
- Alternative 3 - The Holistic and Participatory Approach (Current Draft LACAP): Adopt a multi-pronged approach - that has a strong community engagement emphasis - and focus on a range of priority areas to mitigate against and adapt to climate change impacts.

An evaluation of the potential effects of the reasonable alternatives on the baseline environment has been carried out in accordance with the SEA Directive and best practice guidelines. A summary of this evaluation is presented below:

- Alternative 1 - The Pareto Approach - will lead to some positive environmental effects and will result in the reduction of GHG emissions in the sectors that the local authority can control or exert substantial influence on that contribute most in terms of GHG emission in the City - the Residential and Transport sectors. It is less likely that this alternative will deliver the wide-ranging climate mitigation and offsetting related action required to fully realise GHG emission reduction potential in the City. It is also less likely this alternative would define a wide range of climate adaptation measures that would fully protect biodiversity, heritage resources, environmental receptors and people from climate change risks. This alternative approach may generate several negative environmental effects, which would not be counterbalanced by the positive environmental effects associated with Alternatives 2 and 3.
- Alternative 2 - The Holistic Approach - and Alternative 3 - The Holistic and Participatory Approach - will both broadly deliver suitably wide ranging and effective climate action. These alternatives have the potential to generate multiple positive environmental effects, including a reduction in GHG emissions at organisational, community and sectoral levels, in addition to a variety of other environmental benefits. These alternatives will place a balanced emphasis on both climate mitigation and adaptation action, ensuring climate change related environmental risks are adequately understood and managed at community level.
- Alternative 3 has the best potential to deliver effective climate action given its holistic, wide encompassing nature; and given its strong community engagement emphasis, which supports better participation in climate action at community level. Alternative 3 has better potential there to fully realise potential environmental effects than Alternative 2.

Reasonable Alternative 3 - The Holistic and Participatory Approach - therefore constitutes the preferred alternative or preferred plan.

Evaluation of the Environmental Effects of Plan Implementation

A detailed evaluation of the potential effects of the Preferred LACAP on the baseline environment has been carried out in accordance with the SEA Directive and best practice guidelines. A concise and non-technical summary of the key environmental effects associated with plan implementation is presented below. The potential negative effects presented assume the absence of the appropriate mitigation defined in this Non-technical Summary and in Section 8 of the main body of the SEA Environmental Report

- The variety of climate actions defined in the plan, including organisational and community based actions are likely to positive effect the climate environment,
- The variety of climate actions defined in the plan has the potential to generate co-benefits for local air quality, human health, biodiversity and land use.
- The plan is broadly supportive of different forms of community and local area based renewable energy development, which will have a positive effect on the climate environment.
- Bio-economy related renewable energy development which could be supported by the plan may have a positive effect on material assets through the promotion of material circularity and may positively affect land use, the climate environment and water quality - through the diversification of agricultural land use and the reduction of intensive agricultural activity.
- In the absence of appropriate mitigation, community and local area renewable energy development that might be supported by plan actions, including any associated ancillary and linear infrastructure, has the potential to have a variety of unintended negative environmental effects, including effects on local human receptors, biodiversity, landscape character and visual amenity, the receiving noise environment or the historic fabric of the built environment
- The plan supports the increased use of lighting potentially across a wide geographic area. In absence of appropriate mitigation, the wide use of lighting may lead to adverse effects on sensitive nocturnal species.
- Several plan actions are supportive of the upgrading/retrofitting of buildings to improve energy performance. In the absence of appropriate mitigation, such actions may negatively affect the status of protected structures or the historic fabric of the built environment
- The plan supports the carrying out of a range of flood alleviation and resilience action that will have a positive environmental effect on water quality, hydrology and biodiversity. The delivery of this action has the potential to reduce flood risk and prevent flood events.
- The carrying out of the range flood alleviation and resilience action contained in the plan has the potential to create unintended and potentially significant negative environmental effects in the absence of appropriate mitigation, including effects on water and biodiversity environments.
- Plan actions support better resource management and the circular economy at organisational, community and local area level, which can potentially lead to improvement resource efficiency and reduced lifecycle GHG emissions associated with material production.
- The inappropriate or improper implementation of waste management related action could have unintended, negative environmental and nuisance related effects.
- The plan supports the development of community and local area level nature based solutions - in response to climate related risk - which are supportive of biodiversity protection and enhancement.

- The plan supports green infrastructure development broadly. In absence of appropriate design and mitigation, the development of green infrastructure that is of a significant scale or extent could potentially result in negative environmental effects, including negative construction related effects, negative effects on biodiversity or negative effects on cultural heritage assets.
- The plan defines a variety of climate adaptation related actions designed to protect human receptors, biodiversity and heritage assets from the impacts of climate change influenced events such as flooding. The implementation of this action has the potential to generated positive effects for these environmental receptors - by reducing the risk of such events impinging on or damaging these receptors.
- Plan actions support the development, expansion and management of safe active travel networks. The delivery of an expanded safe active travel network has the potential to promote the use of sustainable and active travel modes in the community, encourage modal shift, reduce traffic related risks and support the reduction of vehicle related emissions.
- Plan actions support the development, expansion and management of safe active travel networks. In the absence of appropriate design and mitigation, the development of active travel networks can negatively impact on the receiving human, noise, air, water, soils, biodiversity, cultural heritage or existing traffic and transport environments.
- Plan actions support the expansion of the Electric Vehicle (EV) charging network and active travel parking in the local authority functional area. The successful delivery of this action has the potential to underpin the use of EV and active travel modes at community and local area level and support the reduction of vehicle related emissions.
- Plan actions support the expansion of EV charging network and active travel parking across the breadth of the local authority functional area. In the absence of appropriate mitigation, the construction of additional charging point infrastructure can negatively impact on the receiving human, noise, air, water, soils, biodiversity, cultural heritage, material asset or existing traffic and transport environments.

Mitigation Measures

Overview of Mitigation Measures

Potential negative environmental effects that may occur as a result of the implementation of the Draft LACAP (without considering any mitigation) have been identified.

The SEA Directive requires that mitigation measures to prevent, reduce and as fully as possible offset any potential significant negative environmental effects due to the implementation of a plan are defined.

Following the evaluation of environmental effects of plan implementation, the following forms of mitigation have been adopted to ameliorate the negative environments of the Draft LACAP:

- Mitigation through consideration of alternatives.
- Mitigation through integration of environmental considerations into the LACAP.
- Mitigation through consideration of development management standards/environmental protection objectives contained in the CDP.

Environmental considerations were appropriately taken into account during the plan making process and when considering plan alternatives. The preferred plan has been chosen on the basis that it will generate the maximum level of positive climate and environmental co-benefit related effects, and the minimum level of negative environmental effects.

The plan making process was carried out in parallel with the SEA and AA processes. Regular communication and interaction took place between the environmental assessment team and the plan making team. Environmental considerations that came to light during the SEA and AA processes, including consultation processes, were regularly communicated to the plan making team during the plan making process. As necessary, environmental mitigation measures to ameliorate the potential negative environmental effects of implementing the Draft LACAP were developed and then integrated into the Draft LACAP. Much of the environmental mitigation was embedded in the plan early on in the process as a result of this. This process was carried out in an iterative manner to ensure optimal plan making and environmental outcomes. Environmental considerations were also integrated into the plan so as to facilitate maximising identified positive environmental effects of the Draft LACAP.

Mitigation measures have been proposed that maximise the co-benefits of climate action for other environmental components such local air quality, human health, biodiversity, water quality and other interrelated areas (i.e., win-win solutions).

Additional text clarifying environmental protection related obligations and environmental enhancement opportunities has been attached to a variety of defined actions in the plan. This text has been shaped to ensure that environmental considerations are appropriately taken into account during plan implementation. This text has been shaped to ensure plan implementation generates the minimum level of negative environmental effects and the maximum level of positive environmental effects.

Several environmental governance principles were established to ensure plan implementation generates the minimum level of negative environmental effects and the maximum level of positive environmental effects. These environmental governance principles shall underpin and guide plan implementation and shall apply to and be integrated into all actions/activities which result due to the implementation of the plan.

In addition to the environmental mitigation measures integrated into the Draft LACAP, the development management standards and environmental protection measures defined in the CDP will serve to mitigate the environmental effects of any development proposals supported by the Draft LACAP. These development management standards/environmental protection measures have been defined for the express purpose of ensuring proper planning and sustainable development in the City. The CDP has been subject to its own SEA and AA. The Draft LACAP has been prepared having appropriate regard to the policies and objectives contained in the City Development Plan.

Conclusions

The reasonable alternative evaluation has resulted in the development of a Draft LACAP that achieves the best environmental outcomes in comparison to other reasonable alternative considered.

The adoption of the mitigation measures to be integrated into the Draft LACAP, in combination with the continued adoption of the development planning and control related environmental protection measures defined in the CDP will prevent, reduce and as fully as possible offset any potential negative environmental effects due to the implementation of the Draft LACAP. No further mitigation measures are required for the Draft LACAP.

Monitoring Measures

The SEA Directive requires that the environmental effects of the implementation of a plan are monitored in order 'to identify at an early stage unforeseen effects, and to be able to undertake appropriate remedial action.'

A series of indicators and targets have been established for identified SEOs to enable ongoing monitoring and measurement of LACAP implementation performance, the environmental effects of the implementation of the LACAP and the efficacy of environmental mitigation measures. Such monitoring will be carried out regularly to support plan implementation.

SEO indicators are simple and effective quantifiable indicators used to measure the environmental effects of implementing the Draft LACAP and the progress of SEO objectives and targets. SEO targets set focussed, measurable aims and thresholds that the Draft LACAP can support the achievement of.

A robust monitoring programme has been established for the implementation of the LACAP.

Where monitoring identifies that the implementation of the LACAP is having a significant negative environmental effect, an in-depth review of the LACAP should take place and the LACAP should be updated in a manner that satisfactorily mitigates these environmental effects (i.e., through the adoption of additional environmental mitigation measures.). Similarly, where monitoring indicates that potential positive environmental effects associated with LACAP implementation are not being adequately realised, the LACAP should be reviewed and updated in a manner that supports the realisation of all potential positive environmental effects, having regard to the overall vision and high-level objectives of the plan.

1. INTRODUCTION

1.1 Background

Cork City Council (CCC) has prepared the Draft Local Authority Climate Action Plan (herein referred to as the 'Plan' or 'LACAP') 2024-2029 for the Cork City Council functional area.

Section 16 of the Climate Action and Low Carbon Development (Amendment) Act 2021 (herein referred to as the 'Climate Act') sets out the provisions governing the establishment and operation of a LACAP. The broad purpose of a LACAP will be to define adaptation and mitigation measures at local level to support the reduction of Greenhouse Gas (GHG) emissions within a local authority as an organisation and throughout the local community. LACAPs shall be implemented over a five-year period. The Minister for the Environment, Climate and Communications has instructed each Local Authority to make a LACAP within 18 months of enactment and local authorities have 12 months to finalise these plans.

Given the scale and nature of the LACAP, and further to a Screening for SEA environmental effects are likely, and therefore Strategic Environmental Assessment (SEA)[2] is required to be undertaken on the Plan. Fehily Timoney and Company (FT) have been commissioned by CCC to complete an SEA for the LACAP.

1.2 SEA Environmental Report

This document has been produced by FT and is the SEA Environmental Report for the Draft LACAP. It forms the main written output of the SEA process and as such presents information on the environmental assessment and likely environmental issues related to the implementation of the Draft LACAP.

The broad purpose of this SEA Environmental Report is as follows:

1. Identify, evaluate and describe the likely significant effects on the environment of the draft LACAP and reasonable alternatives.
2. Inform the preparation of the LACAP.
3. Provide environmental authorities and the public with an early opportunity to make submissions on the draft LACAP and its potential environmental effects - and incorporate changes where necessary to the LACAP and SEA processes.

[2] SEA is the formal, systematic evaluation of the likely significant environmental effects of implementing a plan or programme before a decision is made to adopt it.

1.3 Background to SEA and Legislative Context

SEA is required under the EU Council Directive 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment (the SEA Directive)[3]. The SEA Directive requires that an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment.

The overarching objective of the SEA Directive 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….with a view to promoting sustainable development*'[4]

SEA is a process for evaluating, at the earliest appropriate stage, the environmental consequences of implementing Plan or Programme (P/P) initiatives prepared by authorities at a national, regional or local level or which have been prepared for adoption through legislative means.

SEA is described within the Department of the Environment, Community and Local Government's (2004) Guidelines for Regional Authorities and Planning Authorities on the Implementation of SEA Directive (2001/42/EC) as the *'formal systematic evaluation of the likely significant environmental effects of implementing a plan or programme before a decision is made to adopt the plan or programme'.*

SEA is intended to provide the framework for influencing decision-making at an earlier stage when P/Ps – which give rise to individual projects – are being developed. It is noted that SEA should result in more sustainable development through the systematic appraisal of policy options.

1.4 Purpose of this SEA

The purpose of SEA in this particular case is to enable local authorities incorporate environmental considerations into decision-making at an early stage and in an integrated way throughout the Draft LACAP-making process and to:

1. Identify, evaluate and describe the likely significant effects on the environment of implementing the draft LACAP.
2. Ensure that identified adverse effects are communicated, mitigated and that the effectiveness of mitigation is monitored.
3. Identify beneficial (and neutral) effects, and to ensure these are communicated.
4. Provide opportunity for stakeholder and public involvement.

[3] Transposing Irish Regulations: S.I. No. 435 of 2004 (European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004, as amended by S.I. No. 200 of 2011 (European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011). S.I. No. 436 of 2004 (Planning and Development (Strategic Environmental Assessment) Regulations 2004, as amended by S.I. No. 201 of 2011 (Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011).

[4] Implementation of SEA Directive (2001/42/EC): Assessment of the Effects of Certain Plans and Programmes on the Environment – Guidelines for Regional Authorities and Planning Authorities (Department of the Environment, Community and Local Government, 2004)

1.5 Appropriate Assessment

Appropriate Assessment (AA) is an assessment process focusing on potential effects related to European Sites - which form the Natura 2000 network - these sites have been designated or proposed for designation by virtue of their ecological importance. European Sites include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

The Habitats Directive[5] requires, inter alia, that plans (such as the LACAPs) undergo Screening for AA (Stage 1) and if necessary the preparation of a Natura Impact Report (Stage 2), to establish the likely or potential effects on European Sites arising from plan implementation.

This first stage of the AA process is referred to as 'Screening for AA' and the purpose is to determine, on the basis of a preliminary assessment and objective criteria, whether a plan or project, alone and in combination with other plans or projects, could have significant effects on a European Site in view of the site's conservation objectives.

AA Screening has concluded that there are likely significant effects to European sites - if unmitigated - from the implementation of the LACAP. Therefore, the Draft LACAP has been subject to stage 2 of the AA process, and a Natura Impact Report (NIR) has been prepared alongside the SEA - the details of which have been integrated into the SEA process.

[5] Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora

2. THE DRAFT PLAN

2.1 Overview

The CCC LACAP is an action plan which defines local level climate adaptation and mitigation measures to support the reduction of GHG emissions within the local authority as an organisation and throughout the local community in the local authority's functional area.

LACAP should have an inward and outward focus. Climate action in the plan should be defined by local authorities for their own organisation which they have full control over (i.e., the inward focus), and for communities in their functional area, which they exert a strong influence over in partnership with relevant stakeholders (i.e., the outward focus).

The plan period for the Draft LACAP will be from 2024 to 2029. The Council must review and update the plan after a period of 5 years.

The LACAP has been developed in accordance with the requirements of Section 16 of the Climate Act. It must be consistent with the Climate Action Plan 2023 (CAP23) and the National Adaptation Framework. Local authority Development Plans must also be aligned with their LACAP.

2.2 Context

Climate change refers to the long-term changes in the earth's weather patterns or average temperatures. In Ireland this is demonstrated by rising sea levels, extreme weather events and changes in the eco-system. Extensive research and a significant body of evidence has shown a correlation between the increasing global average temperature and the increasing quantity of GHG released into the atmosphere, particularly from anthropogenic sources.

Changes in weather patterns and climate can have significant adverse impacts on the environment and human beings. The Intergovernmental Panel on Climate Change (IPCC) published the Climate Change 2022: *Impacts, Adaptation and Vulnerability in 2022*. Included in this report is an outline of observed impacts of climate change on the environment and human beings. These include impacts from inland flooding, damages to infrastructure, impacts from infectious disease, displacement, animal and livestock health and productivity, mental health and water scarcity derived from climate change.

The seriousness of the potential impacts and risks associated with climate change is reflected in the vast quantity of international, European and national legislation that has been introduced to mitigate those impacts and risks.

The Irish Climate Act provides a statutory underpinning to climate action in Ireland. It specifies the requirement to develop a national Climate Action Plan (and update it every year), a National Adaptation Framework (NAF), a National Long Term Climate Action Strategy and Sectoral Adaptation Plans (SAPs). It also specifies a series of carbon budgets and the associated sectoral emission ceilings.

It sets out actions that must be taken to ensure delivery of commitments and a target to reduce GHG by 51% by 2030 and to achieve net zero GHG emissions by 2050. The successful delivery of climate action and the achievement of these targets will require significant, unanimous effort across all sectors of society.

A key element of the Climate Act is the requirement under Section 16 for local authorities to prepare individual LACAPs for their functional area. The purpose of LACAPs will be to deliver effective climate action and mitigation at local authority and community levels. The Act acknowledges that local authorities are key drivers in advancing and delivering on climate policy.

2.3 Plan Content

The Draft LACAP focusses on several theme areas which are considered to be key for achieving a climate resilient and climate neutral future at organisational and community level. A number of main objectives have been developed for each theme area. Multiple specific actions have been defined to support the achievement of these main objectives. An overview of the theme areas and main objectives under the Draft LACAP is presented in Table 2-1.

Table 2-1: Draft LACAP Theme Areas

Theme Area
Governance and Leadership
Communities and Partnerships
Built Environment and Energy
Travel and Mobility
Natural Environment and Resource Management

2.4 Overall Vision and Strategic Outcomes

The overall vision of the Draft LACAP for CCC is to meet the environmental, economic and social challenges of climate change. Through Just Transition, the city will adapt to a decarbonised, climate neutral, resilient and biodiversity rich future. This will be achieved by protecting the environment and building strong partnerships and collaborations with their communities.

Through the development and implementation of specific, action-focused, time-bound and measurable actions, the Draft LACAP will achieve the following strategic outcomes (as defined by the Department of the Environment, Climate and Communications Guidelines for Local Authority Climate Action Plans):

1. Provide a strong emphasis on a place-based approach to climate action, delivering a better understanding of greenhouse gas emissions and climate-related risks at a local level, while addressing context-specific conditions and support for locally tailored policy making.
2. Deliver and promote evidence-based and integrated climate action by way of adaptation and mitigation measures, centred around a strong understanding of the role and remit of the local authority on climate action.
3. Translate and provide strategic direction at local and community levels on the delivery of the national climate objective which is seeking to curb further global warming and to transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy by no later than the end of 2050.

2.5 Relationship of the Plan with other Relevant Plans and Programmes

An examination of how the Draft LACAP interrelates with other national, regional and local plans and programmes has taken place and is documented in Appendix 1.

3. SEA METHODOLOGY

3.1 The SEA Process

The SEA process can be defined by four stages, all of which include some level of consultation with stakeholders and the public (Figure 3-1). These stages are defined as:

- Stage 1 – Screening: deciding whether an SEA is required, or not.
- Stage 2 – Scoping: establishing the spatial and temporal scope of the SEA and a decision-making framework that can be used to evaluate impacts.
- Stage 3 – Identification, Prediction, Considerations of Alternatives, Evaluation and Mitigation of Potential Impacts.
- Stage 4 – Consultation, Revision and Post-Adoption. This includes the implementation of statutory SEA monitoring.

The SEA process runs in parallel with the Appropriate Assessment (AA) process, which is briefly discussed in Section 1.5

This SEA Environmental Report documents the outcomes of Stage 3.

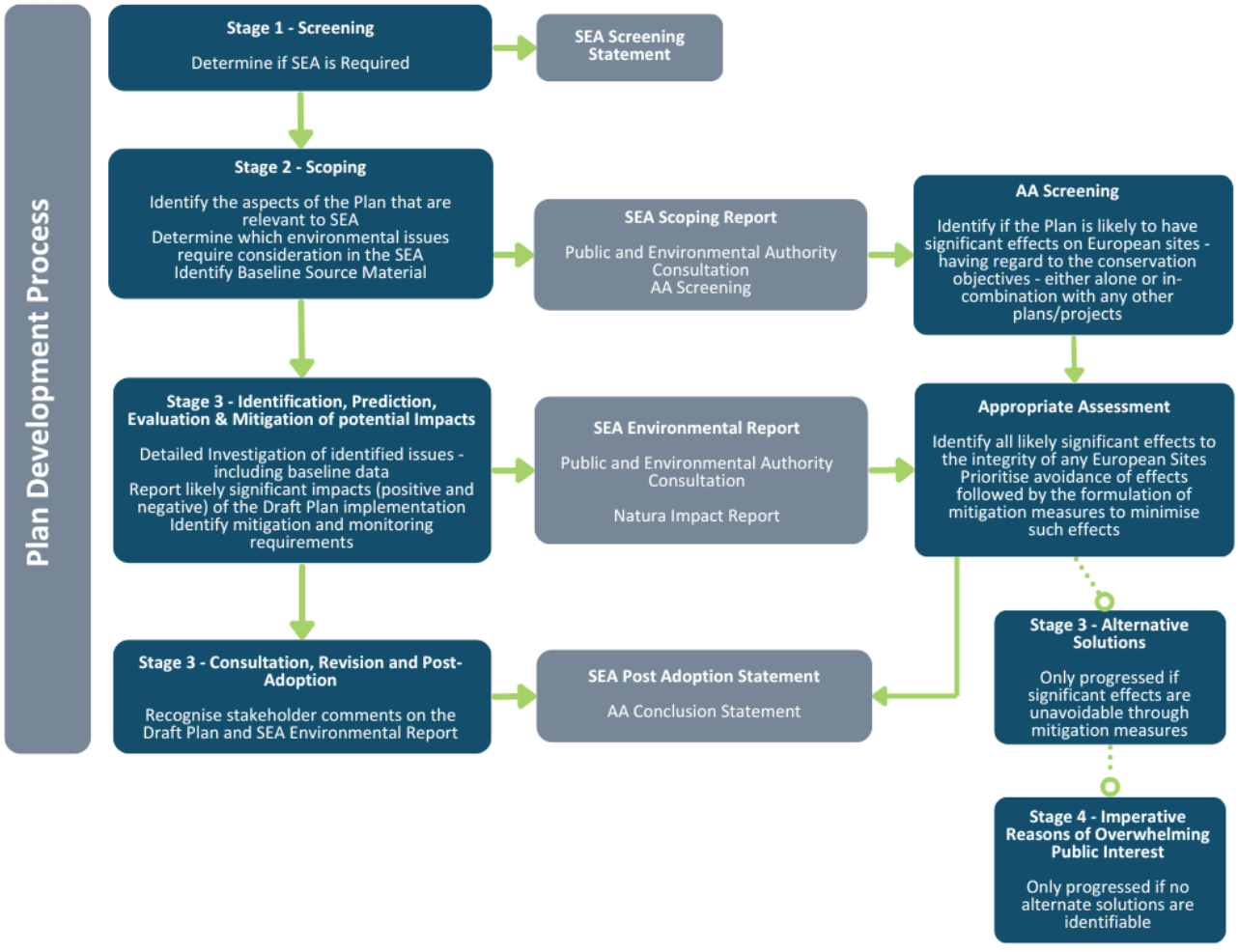


Figure 3-1: SEA and AA Stages and Key Deliverables

3.2 Overview of the LACAP SEA and AA Processes

Given the scale and nature of the LACAP, environmental effects are likely, and therefore SEA has been 'screened in' in this instance.

An SEA Scoping Report was produced for the Draft LACAP. This SEA Scoping Report, along with SEA scoping submissions and consideration of these submissions by the SEA process, has helped communicate and define the scope of the environmental issues which are to be dealt with by the SEA together with the level of detail to which it is intended to address these issues, as per the SEA Guidelines[6].

Figure 3-2 provides an overview of the integrated LACAP-preparation and SEA, Appropriate Assessment (AA)[7] processes. The preparation of the Draft LACAP, SEA and AA are taking place concurrently and the findings of the SEA and AA will inform the Draft LACAP.

Taking into account the scope detailed in the SEA Scoping Report which was produced for the Draft LACAP, the environmental effects associated with the implementation of the Draft LACAP have been identified, evaluated and described in this SEA Environmental Report. This report has also defined mitigation measures to prevent adverse environmental effects due to the implementation of the Draft LACAP. This report will accompany the Draft LACAP on public display as part of the required statutory public consultation. The findings of the AA have also been integrated into the SEA Environmental Report. AA documents will also accompany the Draft LACAP and SEA Environmental Report on public display. The SEA will follow elements of Integrated Biodiversity Impact Assessment[8].

Submissions will be responded to in the Chief Executive's report on public consultation, with updates made to the SEA and AA documentation where relevant.

Any proposed modifications to the LACAP would be examined to ensure that they would not be likely to affect the Natura 2000 network of designated ecological sites and to ensure that they would not be likely to result in significant environmental effects.

When the LACAP is adopted, the SEA and AA documents will be finalised and an SEA Statement, which will include information on how environmental considerations were integrated into the LACAP, will be prepared. The LACAP will then be implemented and environmental monitoring will be undertaken to measure the environmental effects of the plan.

[6] Implementation of SEA Directive (2001/42/EC): Assessment of the Effects of Certain Plans and Programmes on the Environment Guidelines for Regional Authorities and Planning Authorities (DEHLG, 2004), Page 18 "It is recommended that at the end of the scoping procedure, the plan-making authority should prepare a brief scoping report of its conclusions as to what information is to be included in the environmental report, taking account of any recommendations from the environmental authorities."

[7] AA is a focused and detailed impact assessment of the implications of a strategic action or project, alone and in combination with other strategic actions and projects, on the integrity of a European site in view of its conservation objectives.

[8] As detailed in the EPA's 2013 Integrated Biodiversity Impact Assessment - Streamlining AA, SEA and EIA Processes: Practitioner's Manual.

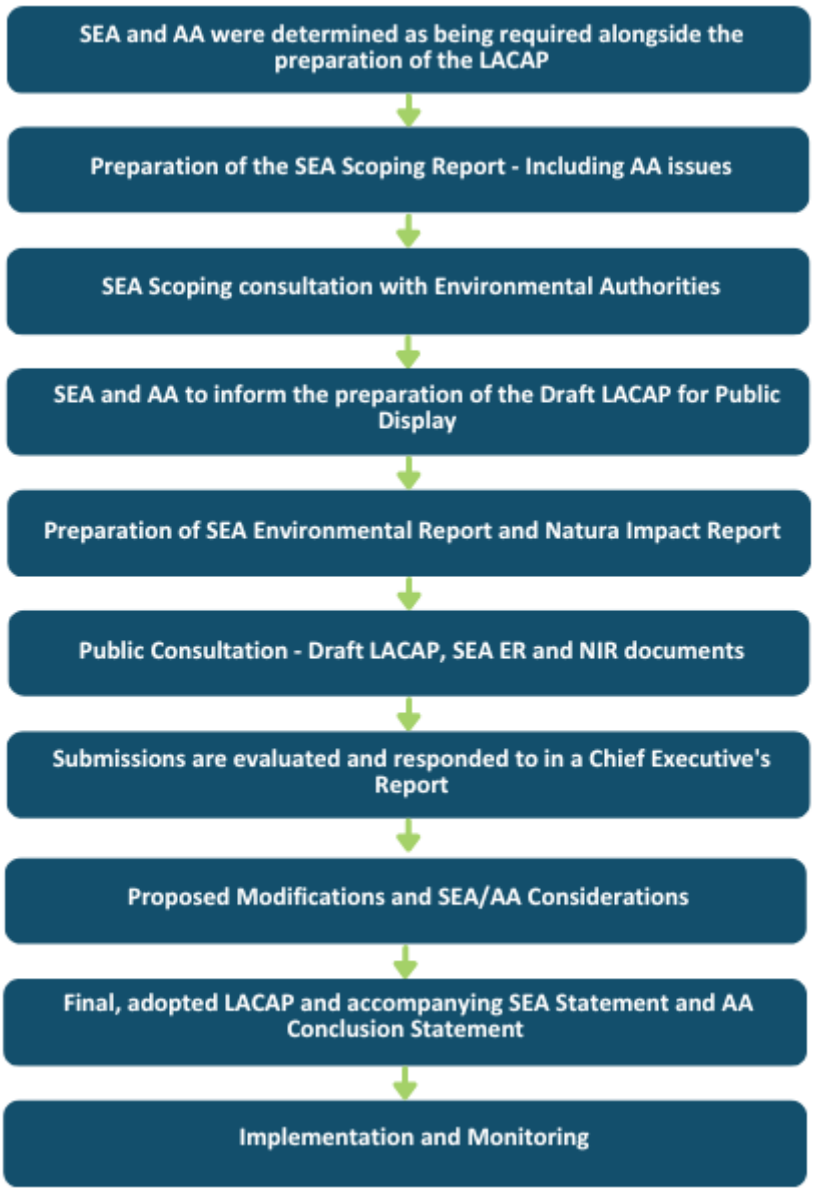


Figure 3-2: Overview of the SEA Process in the Review and Preparation of the Local Authority Climate Action Plan (including AA processes)

3.3 SEA Processes Undertaken To Date

3.3.1 SEA Screening

The first stage of the SEA process is to carry out SEA Screening to determine the requirement for SEA of a P/P.

The first stage in determining whether a P/P requires SEA is the carrying out of a 'Pre-screening Check' (also known as a 'Stage 1 Applicability'). This allows rapid screening-out of P/P that are clearly not going to have any environmental impact and screening-in of those that do require SEA. The second stage in determining whether a P/P requires SEA is known as 'Stage 2 Screening.' The purpose of this stage is to determine whether a P/P is likely to have significant effects on the environment and whether SEA must be carried out in conjunction with a P/P. The application of environmental significance criteria is important in determining whether an SEA is required. Annex II of Directive 2001/42/EC sets out the 'statutory' criteria that should be addressed when undertaking this stage.

Given the scale and nature of the LACAP, environmental effects are likely, and therefore SEA has been 'screened in' in this instance. An SEA Screening Statement to this effect was produced by the CCC LACAP.

The main reasons for 'screening in' in the LACAP are listed below:

1. The LACAP will define a framework sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources.
2. The LACAP has the potential to give rise to environmental problems.
3. The LACAP will support the achievement of the principles and policies of European climate change related legislation (e.g., 'European Climate Law'[9]).
4. The LACAP has the potential to likely significant environmental effects based its impact on likely impact on land use and development, its city-wide geographic scope and the breadth of receiving environmental sensitivities within the city.

3.3.2 SEA Scoping

The second stage of the SEA process is carrying out SEA Scoping. The purpose of SEA Scoping is to establish the spatial and temporal scope of the SEA and a decision-making framework that can be used to evaluate impacts. An SEA Scoping Report is produced to document the scoping process.

FT produced a final SEA Scoping Report for the Draft LACAP which was informed by consultation response from the environmental authorities. The SEA Scoping Report outlined information on the Draft LACAP, including the need for the Draft LACAP, its temporal and geographical area and overall objectives. It facilitated scoping the Environmental Components and understanding the environmental issues to be considered under the SEA process. The Scoping Report was also required to facilitate statutory consultation to ensure that the approach proposed for the SEA is appropriate. A copy of this report was made available to the statutory Environmental Authorities.

The SEA Scoping Report, along with SEA scoping submissions and consideration of these submissions by the SEA process, has helped communicate and define the scope of the environmental issues which are to be dealt with by the SEA, the methods which will be used to address these issues, and the level of detail required to address these issues, as per the SEA Guidelines[10].

[9] Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999

[10] Implementation of SEA Directive (2001/42/EC): Assessment of the Effects of Certain Plans and Programmes on the Environment Guidelines for Regional Authorities and Planning Authorities (DEHLG, 2004), Page 18: "It is recommended that at the end of the scoping procedure, the plan-making authority should prepare a brief scoping report of its conclusions as to what information is to be included in the environmental report, taking account of any recommendations from the environmental authorities."

The Environmental Components in the SEA Directive that were 'scoped in' are as follows:

- Population and Human Health
- Biodiversity, Flora & Fauna
- Landscape, Seascape & Visual Amenity
- Cultural Heritage - Archaeology & Architectural
- Soils
- Land Use
- Air Quality & Noise
- Water
- Material Assets
- Tourism & Recreation
- Climate Change

3.3.3 SEA Consultation

Consultation with statutory Environmental Authorities was undertaken to inform the SEA Scoping process. A Draft SEA Scoping Report and appropriate SEA Scoping Questions were issued to statutory Environmental Authorities. The consultation period lasted for 4 weeks.

The following statutory Environmental Authorities and interested stakeholders were consulted on the scope and level of detail of the information to be included in the SEA Environmental Report:

- Department of Agriculture, Food and the Marine (DAFM)
- Department of the Environment, Climate and Communications (DECC)
- Department of Housing, Local Government and Heritage (DHLGH)
- Environmental Protection Agency (EPA)
- Climate Action Regional Office (CARO) Atlantic Seaboard South
- Neighbouring Local Authorities [11].

The consultation feedback is presented in Appendix 2.

In addition to the above statutory Environmental Authorities, the following interested stakeholders will be consulted on the SEA Environmental Report:

- An Taisce
- Bord Iascaigh Mhara
- Birdwatch Ireland
- Climate Change Advisory Council
- Coastwatch

[11]Kerry, Tipperary, Waterford and Limerick.

- Department of Enterprise, Trade and Employment (DETE)
- Department of Transport (DoT)
- Electricity Supply Board (ESB)
- Fáilte Ireland
- Gas Networks Ireland
- Industrial Development Authority (IDA)
- Inland Fisheries Ireland (IFI)
- Inland Waterways Association of Ireland (IWAI)
- Landscape Alliance Ireland
- Neighbouring Local Authorities
- Marine Institute
- Office of Public Works (OPW)
- Regional Authorities[12]
- Sustainable Energy Authority of Ireland (SEAI)
- Teagasc
- Tourism Ireland

3.4 SEA Environmental Report

3.4.1 Environmental Assessment Approach and Methodology

The third stage involves the strategic level identification, prediction, evaluation and mitigation of potential environmental impacts associated with the Draft LACAP. An SEA Environmental Report is produced to document this process. The SEA Environmental Report is integral to the SEA process and is compiled during the plan-making process to allow for adequate consideration of the likely, significant environmental effects of the plan and the incorporation of appropriate environmental mitigation measures into the plan. It should serve to guide the plan-making process and ensure optimal environmental outcomes.

The SEA Environmental Report forms the main written output of SEA process. It serves to document the evaluation of the likely, significant environmental effects of implementing the plan on the relevant Environmental Components defined in the SEA Directive. It defines Strategic Environmental Objectives (SEOs) and associated targets and indicators relating to each Environmental Component area. It defines environmental mitigation measures to prevent, reduce and offset the likely, significant environmental effects of implementing the plan and monitoring measures to measure the environmental effects of the plan. It provides the plan-maker, statutory Environmental Authorities, interested stakeholders and the general public with a clear understanding of likely, significant environmental effects associated with implementing a P/P.

[12] Climate Action Regional Office (CARO) Atlantic Seaboard South.

A summary of the information contained in an SEA Environmental Report is presented below:

- A non-technical summary of the environmental assessment carried out to inform the SEA Environmental Report.
- A description of the P/P under consideration, including detail on the main objectives of the P/P, the contents of the P/P, anticipated P/P outcomes, and how the P/P relates to other P/Ps.
- A description and characterisation of the baseline environment that has the potential to be affected by the implementation of the P/P, including the evolution of the baseline environment without the implementation of the P/P (I.e., under a 'do-nothing' or 'do-minimum' scenario).
- A description of any existing environmental problems relevant to the P/P.
- Environmental protection objectives (including indicators and targets) relevant to the P/P and the way these objectives and environmental considerations have been taken into during the plan-making process.
- A description of reasonable alternatives identified, the reasons for considering these alternatives within the scope of the environmental assessment, and an evaluation of their likely significant effect on the environment.
- An evaluation of the likely significant effects of the implementation of the P/P (including reasonable alternatives) on the environment, and in particular on the following environmental components: biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.
- A description of environmental mitigation measures proposed to prevent, reduce and offset likely significant environmental effects that may occur dur the implementation of the P/P.
- A description of the monitoring measures to be implemented to monitor the likely, significant effects of implementing a P/P.

This SEA Environmental Report has been produced for CCC's Draft LACAP and must be issued to the statutory Environmental Authorities and identified interested stakeholders to allow them to make submissions on the Draft LACAP, the environmental assessment undertaken, and the environmental mitigation and monitoring measures proposed. It must also be published for public display with the Draft LACAP, to allow for members of the public to make submissions on the environmental assessment.

The Draft LACAP and the SEA Environmental Report are due to be published in early Q4 2023

3.4.2 SEA Environmental Report Authors

FT is a consultancy based in Cork, Carlow and Dublin, specialising in civil and environmental engineering, planning and environmental assessment. The company has established an experienced, professional team specialising in all forms of statutory environmental assessment, including EIA, AA and SEA. This team has the support of many in-house engineers, scientists, planners and subject specialists.

FT was retained by CCC to undertake SEA of the Draft LACAP and are responsible for the completion of this SEA Environmental Report. The competent experts involved in the preparation of this SEA Environmental Report are outlined in Table 3-1.

Table 3-1: SEA Environmental Report Authors

Name and Qualifications	Project Role	Relevant Experience
Bernie Guinan MSc, BSc. (Envi. Sci & Tech), Dip. Pollution Assessment Control Dip. Business Development	Project Director	Bernie is Director with FT responsible for Waste & Resource Management and Environmental Science. She has 20 years' experience in delivering and managing projects in the environmental sector. Bernie has extensive experience coordinating EIA, SEA and AA projects, including large-scale and complex projects. She has in-depth knowledge of all environmental and planning policy, legislation and guidance.
Andrew Torsney PhD, Ecotourism and visitor Behaviour Analysis, Trinity College Dublin, 2018 – Present (Part time) MRes Biodiversity and Conservation (Hons.), University of Leeds, UK, 2011 - 2012 BSc Zoology, University College Dublin, 2007 - 2011	Project Manager	Andrew has over 10 years' experience as a professional ecologist. He is responsible for all ecological work from project design and implementation to the preparation of reports. Interaction with key stake holder and statutory bodies such as the NPWS and the EPA is a vital part of this role. His role is diverse and complex working at both plan and project level. He has been the principal ecologist responsible for the preparation and co-ordination of SEA and AA for many statutory land use plans; as well as EcIAs, EIARs and AAs of Projects. Andrew has comprehensive technical knowledge in ecological assessments and legalities of the planning processes to facilitate streamlined delivery of assessments. Andrew is an experienced ecologist who holds four national species derogation licenses for bats (photography & roost disturbance), otters and badgers. Andrew has authored the NBDC Identification Guide to Irelands Bats and the Identification Guide to Regulated Invasive Plants. Andrew is an experienced botanical specialist with a focus on Annex I grassland habitats, having worked on the translocation of lowland hay meadow [6510] containing the floral protection order species meadow barley (Hordeum secalinum).
Richard Deeney Advanced Diploma in Planning and Environmental Law, Kings Inns, Ireland 2017 B.Sc. First Class Honours Degree, Environmental Management, Dublin Institute of Technology, 2012 Chartered Environmentalist, The Society for the Environment	SEA Team Lead	Richard is Senior Environmental Scientist at Fehily Timoney. Richard holds a B.Sc. First-Class Honours degree in Environmental Management from Dublin Institute of Technology. Richard works in the Waste and Environment team at Fehily Timoney and is experienced in project managing and coordination of Planning Applications, Strategic Environmental Assessments, Environmental Impact Assessment Reports and Environmental Assessment, EIAR Screening and Scoping Reports, the development of Environmental Management Plans and Systems, Environmental Auditing, and Air Emission Assessment. Richard has excellent experience in planning and environmental assessment for various types of development including waste facilities, quarries, renewable energy development and tourism development. He has experience completing baseline air emissions assessments for a range of organisations.
Eunice Wong B.Sc. First Class Honours, Environmental Science and Sustainable Technology, Munster Technological University, 2022	Project Support	Eunice is an Environmental Scientist on the Waste and Environmental Team at Fehily Timoney and Company. Eunice holds a First-Class Honours BSc in Environmental Science and Sustainable Technology from Munster Technological University. Eunice has been involved in a variety of diverse and challenging projects since joining FT covering key aspects of remediation, baseline emission inventories, amenity development, environmental assessment, and monitoring. She has been responsible for the research, data collation, validation, and analysis for a multitude of projects, including desk-based studies, research, as well as the development of associated reports.

Name and Qualifications	Project Role	Relevant Experience
Bruna Felipe BE (Hons) Environmental Engineering UNESP, Sao Paulo State University, Brazil	Project Support	Bruna is a Project Environmental Engineer of Fehily Timoney and Company. Bruna holds a BE of Environmental Engineering from UNESP, Sao Paulo State University, Brazil. Bruna has been involved in a range of contaminated land projects and Tier II Environmental Risk Assessments (ERA). Bruna has been responsible for the data collation, validation and analysis for the preparation of ERA reports for a range of landfill related projects, including works related to meeting environmental monitoring and license compliance for a variety of landfills. She has been involved in the preparation of Appropriate Assessment reports and a European Sites library for the Department of Agriculture, Food and Marine. She also has experience developing baseline emission inventories and conducting baseline environmental assessments for multiple projects.
Eibhlin Vaughan First Class Honors BA in Environmental Science, Trinity College Dublin ,2020	Project Support	Eibhlín is an Environmental Scientist on the Waste and Environmental Team at Fehily Timoney and Company. Eibhlín holds a BA in Environmental Science from Trinity College Dublin where she achieved First Class Honours. As a Graduate Environmental Scientist, she has undertaken a dynamic role, spanning EIAR handling, environmental monitoring, proficient report writing, research, data analysis, and the formulation of effective waste management strategies. Alongside her role within the company, Eibhlín is also completing a Research MEngSc in University College Dublin, for which data collection, analysis, and report writing and presentation play a key role.

3.4.3 Difficulties Encountered

No significant difficulties have been encountered during the undertaking of the assessment.

3.4.4 SEA Environmental Report Checklist

A checklist of information that must be included in this SEA Environmental Report under the SEA Directive and transposing national legislation[13] is provided in Table 3-2. This checklist cross-references the sections in the report where information can be found.

[13] The Environmental Report is required to contain the information specified in Annex 1 of the SEA Directive and Schedule 2 and 2B of S.I. 435 and 436 of 2004.

Table 3-2: SEA Environmental Report Checklist

Information Required	Relevant Section of the SEA Environmental Report
An outline of the contents and main objectives of the plan and relationship with other relevant plans.	Section 2.
The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan.	Section 4.
The environmental characteristics of areas likely to be significantly affected.	Section 4.
Any existing environmental problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to the Birds Directive or Habitats Directive.	Section 4.
The environmental protection objectives, established at international, European Union or national level, which are relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation.	Section 5.
The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.	Section 7 and Appendix 3.
The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan.	Section 8.
An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information.	Section 6.
A description of the measures envisaged concerning monitoring of the significant environmental effects of implementation of the plan.	Section 9.
A non-technical summary of the information provided under the above headings.	Front section
Interrelationships between each Environmental Component.	Section 7 and Appendix 3.

3.5 SEA Statement

The final LACAP will be published by February 2024 at the latest. CCC will publish a post adoption SEA Statement alongside the final Plan. The post adoption SEA Statement is another integral component of the SEA process.

The SEA Statement will provide detail on how the environmental assessment and considerations detailed in the SEA Environmental Report and SEA related consultation responses throughout the process have influenced the plan-making process. It will summarise the reasoning for choosing the adopted, final LACAP in light of other reasonable alternative. The SEA will contain detail of environmental mitigation and monitoring measures to be implemented over the lifetime of the LACAP.

The main purpose of the SEA Statement is to provide interested parties with a good and clear understanding of how the SEA process was carried out during the plan-making process and how SEA informed and supported the process.

3.6 Integrated Biodiversity Impact Assessment

The environmental assessment undertaken has been carried out in accordance with an Integrated Biodiversity Impact Assessment based methodology in accordance with EPA's guidance document entitled *'Final Report: Integrated Biodiversity Impact Assessment, Streamlining AA, SEA and EIA Processes. Best Practice Guidance.'* (2012).

The methodology employed facilities the integration of SEA and AA processes relating to biodiversity impact assessment to ensure the effective and streamlined assessment of biodiversity impacts. The plan-making, SEA and AA processes - including scoping, baseline evaluation, impact assessment and mitigation/monitoring measure development processes - have been carried out concurrently to facilitate holistic and complete assessment of biodiversity impacts. The effective communication and integration of scientific knowledge and analysis between assessments has taken place. The SEA is suitably informed by the analysis and conclusions in AA.

3.7 Outcomes of the LACAP SEA and AA Processes

The SEA and AA processes will facilitate the integration of environmental considerations into the Draft LACAP, including policies and objectives contributing towards environmental protection and management and sustainable development; and the integration of environmental considerations into the policies and objectives included as part of the LACAP.

4. THE ENVIRONMENTAL BASELINE

4.1 Introduction

An evaluation and a characterisation of the current state of the environment likely to be affected by the Draft LACAP has been undertaken to inform the SEA process. This section of the SEA Environmental Report documents this evaluation. The following Environmental Components were considered during this evaluation:

- Population and Human Health
- Biodiversity, Flora & Fauna
- Landscape, Seascape & Visual Amenity
- Cultural Heritage - Archaeology & Architectural
- Soils
- Land Use
- Air Quality & Noise
- Water
- Material Assets
- Tourism & Recreation
- Climate Change

Baseline environmental information for the local authority functional area (herein referred to as the 'study area') has been gathered using available environmental datasets. The evaluation of the baseline environment has been informed by the SEA Scoping Report produced and the consultation responses received during the SEA Scoping process. It has also been guided and informed by the in-depth experience and expert judgement of the SEA Environmental Report Authors.

This section of the SEA Environmental Report includes information on the state of the environment within the defined study area (Figure 4-1), including maps of individual environmental components, environmental sensitivity mapping and a description of the baseline environment under the Environmental Components identified by the SEA Directive and transposing Regulations (i.e. population and human health, biodiversity and flora and fauna, soil, water, air and climatic factors, material assets, cultural heritage, landscape and the interrelationship between these factors). Existing environmental problems which are relevant to the Draft LACAP have been identified and examined under each Environmental Component heading.

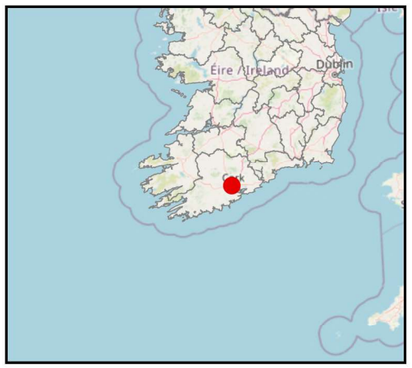
The SEA Environmental Report has also considered the zone of influence for the Draft LACAP and includes baseline information beyond the Draft LACAP boundary for certain environmental components (E.g., European Sites and the status of shared water bodies).

Information provided in this section is based on readily available baseline data from web-based searches and Geographic Information Systems (GIS) information. A key resource that has been used throughout the SEA process is the EPA's SEA Spatial Information Sources Inventory[14]. The data presented in this section of the SEA Environmental Report is as up-to-date and as accurate as possible and is presented in a readily accessible format, where possible.

The interrelationships between Environmental Components are addressed throughout this section, as appropriate, under each Environmental Component heading. A summary of Environmental Component interrelationships is also provided.

This section of the SEA Environmental Report examines the likely evolution of the baseline environmental in the absence of the LACAP being implemented (i.e., in the 'do nothing' or 'do minimum' scenario).

[14] Environmental Protection Agency. 2022. SEA Spatial Information Sources: Available at Strategic Environmental Assessment | Environmental Protection Agency (epa.ie)



Legend

Local Authority Boundaries

Local Authority Boundary

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO:	4.1		
CLIENT:	CORK CITY COUNCIL		
DATE:	15/08/2023	**SCALE:**	1:70,000 @ A3

N W E S 0 0.5 0.9 2 km

FEHILY TIMONEY
Cork | Dublin | Carlow
www.fehilytimoney.ie

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4.2 Population and Human Health

In the 2022 Census, the total population of Cork City was 224,004 persons[15].

Cork City is identified by the Southern Regional Assembly Regional Spatial and Economic Strategy (RSES) 2019-2031 as being part of the Cork Metropolitan Area. The transitional population projection for the Cork Metropolitan Area until 2031 is 408,826 persons[16].

There are no population projections in the Draft LACAP as the provisions relate only to climate action – however, there are features within the Draft LACAP which could influence population projections for the city and interact with various environmental components. Potential interactions include:

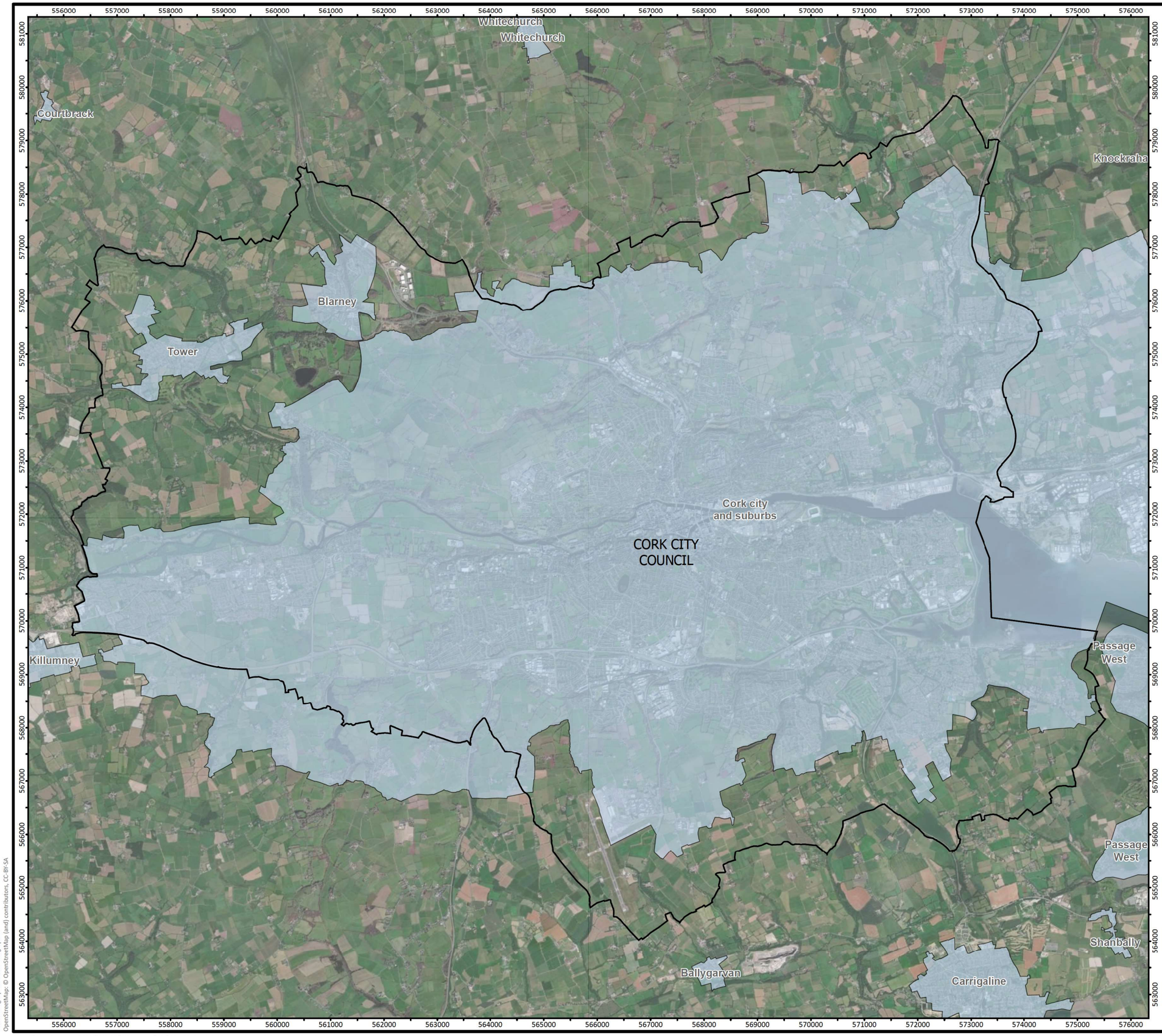
- Recreational and development pressure on habitats and landscapes.
- Renewable energy development could influence population dynamics within the city.
- Increased constraints on land use zoning objectives in the decarbonising zone.
- Potential effects on water quality.

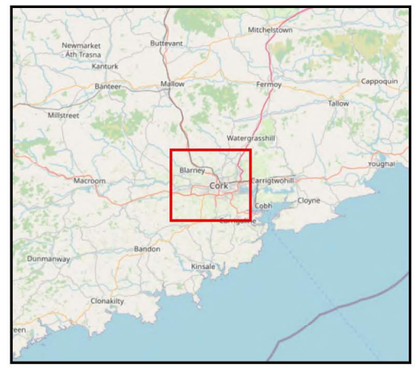
With regard to human health, impacts relevant to the SEA are those which arise as a result of interactions with environmental vectors (i.e. environmental components such as air, water or soil through which contaminants or pollutants, which have the potential to cause harm, can be transported so that they come into contact with human beings). Hazards or nuisances to human health can arise as a result of exposure to these vectors arising from incompatible adjacent land uses, for example.

4.2.1 Key Issues Relating to the Draft LACAP

- Recreational and development pressure on habitats and landscapes.
- Population and development growth will potentially influence the energy requirement within the city.
- Population and development growth will potentially influence the decarbonising zone.
- Potential visual effect of green infrastructure development, see also Section 4.4.

[15] Central Statistics Office. 2022. F1004A – Population (cso.ie) https://data.cso.ie/table/F1004A
[16] *Regional Spatial and Economic Strategy for the Southern Region 2019-2031*





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- Local Authority Boundaries
- Census Settlements

Major Settlement Pattern

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO:	4.2		
CLIENT:	CORK CITY COUNCIL		
DATE:	30/08/2023	**SCALE:**	1:70,000 @ A3

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4.3 Biodiversity, Flora and Fauna

The SEA has considered available information on designated sites of conservation interest as well as protected species, ecological connectivity and non-designated habitats which have high ecological value. The SEA has also identified data sources which may be appropriate to local, project level development and assessments.

There are a number of considerations for nature conservation designations in Cork City including:

Table 4-1: Designated Ecological Sites and Protected Species

Environmental Features	Description
UNESCO[17] (United Nations Educational, Scientific and Cultural Organisation) World Heritage and Biosphere sites	There is no World Heritage or UNESCO designation within Cork City that is of natural and cultural importance, however, Cork City achieved a UNESCO award as a Learning City in 2015.
Special Areas of Conservation[18] (SACs)[19]	Designated under the Habitats Directive (Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora). **There are no designated SACs within, partially within or adjacent to the Plan area.**
Special Protection Areas[20] (SPAs)[21]	Designated under the Birds Directive (EC Directive 200/147/EC on the conservation of wild birds). **There is 1 designated SPA partially within the Plan area; Cork Harbour SPA (004030).** This and other sites beyond the city border that could be affected by the Draft LACAP will be considered by the assessments.
RAMSAR sites[22]	The Convention of Wetlands of International Importance, especially as Water Fowl Habitat, was established at Ramsar in 1971 and ratified by Ireland in 1984. The main aim of the Convention is to secure the designation by each contracting state of wetlands in its territory for inclusion in a list of wetlands of international importance for waterfowl. This entails the commitment of each contracting state to a policy of protection and management of the designated wetlands, and of formulating and implementing planning so as to promote the conservation of designated wetlands and, as far as possible, the wise use of wetlands in its territory. Ireland presently has 45 sites designated as Wetlands of International Importance, with surface areas of 66,994 hectares. There is 1 designated Ramsar **site partially within the** city boundary; Cork Harbour.
Natural Heritage Areas[23] (NHAs)	NHAs are designated due to their national conservation value for ecological and/or geological/geomorphological heritage. They cover nationally important semi-natural and natural habitats, landforms or geomorphological features, wildlife plant and animal species or a diversity of these natural attributes. NHAs are designated under the Wildlife (Amendment) Act 2000. **There are no designated NHAs within the Plan area.**

[17] UNESCO Sites in Ireland - HeritageMaps.ie - data.gov.ie
[18] Designated site data | National Parks & Wildlife Service (npws.ie)
[19] Habitats Directive (1992/43/EEC) - habitats and species listed in Annex I and II
[20] Designated site data | National Parks & Wildlife Service (npws.ie)
[21] Birds Directive (2009/147/EEC)
[22] Ramsar Sites - Datasets - data.gov.ie
[23] Natural Heritage Areas (NHA) | National Parks & Wildlife Service (npws.ie)

Environmental Features	Description
Proposed Natural Heritage Areas (pNHAs)[24]	pNHAs were published on a non-statutory basis in 1995 but have not since been statutorily proposed or designated. These sites are of significance for wildlife and habitats. **There are 11 pNHAs within or partially within the City, of which include: Lee Valley, Shournagh Valley, Blarney Castle Woods, Douglas River Estuary, Glanmire Wood, Cork Lough, Dunkettle Shore, Ballincollig Cave, Blarney Lake, Ardamadane Wood and Blarney Bog.**
Tree Preservation Order (TPO)	Tree Preservation Orders may be made under Section 45 of the Local Government (Planning and Development) Act, 1963 and subsequent acts. Part XIII of the Planning and Development Act, 2000 sets out the provisions for TPOs. TPOs can be made in the interest of amenity or the environment and allow for the protection of individual or groups of trees. 12 TPOs within the City have been identified within the City Development Plan.
Flora Protection Order Sites[25]	The Flora (Protection) Order, 2022 (S.I. No. 235 of 2022) gives legal protection to 65 species of bryophytes in the Republic of Ireland (25 liverworts and 40 mosses). The current list of plant species protected by Section 21 of the Wildlife Act, 1976 is set out in the Flora (Protection) Order, 2022, which supersedes orders made in 1980, 1987, 1999 and 2015. There are 3 designated Flora Protection Order Sites in the City; near Cork City (Bryum intermedium), Cork City (Scleropodium touretii) and Blarney (Entosthodon muhlenbergii).
Wildfowl Sanctuaries[26] (see S.I. 192 of 1979)	Wildfowl Sanctuaries are areas that have been excluded from the 'Open Season Order' so that game birds can rest and feed undisturbed. There are 68 sanctuaries in the State. Shooting of game birds is not allowed in these sanctuaries. There is 1 Wildfowl Sanctuary within the City: The Lough (WFS-12).
Salmonid Waters[27]	Salmonid waters are designated and protected as under the European Communities (Quality of Salmonid Waters) Regulations 1988 (SI No. 293 of 1988). Designated Salmonid Waters are capable of supporting salmon (Salmo salar), trout (Salmo trutta), char (Salvelinus) and whitefish (Coregonus). The River Lee is a protected salmonid waters.
CORINE Landcover[28]	Land cover is the observed physical cover, as seen from the ground or through remote sensing, including for example natural or planted vegetation, water and human constructions which cover the earth's surface. The most dominant land cover type is urban.

[24] EPA Maps
[25] Flora Protection Order Map Viewer (npws.ie)
[26] Wildfowl Sanctuaries | National Parks & Wildlife Service (npws.ie)
[27] Register of Protected Areas - Salmonid Water Regs Table - Datasets - data.gov.ie
[28] EPA Maps

Additionally, the SEA has considered non designated sites for impacts with regards to aspects such as:

Table 4-2: Ecological Connectivity and Non-designated Habitats

	Description
Ecological connectivity and networks (including stepping stones and corridors)	Coastal systems, riparian habitats, hedgerow and other blue and green infrastructure networks. Ecological connectivity and networks will be a key consideration along with invasive species - particularly those listed on the Third Schedule to the European Communities (Birds and Natural Habitats) Regulations 2011 [S.I.477/2011].
Other sites of high biodiversity value or ecological importance	Semi-natural habitats in National Parks and Wildlife Service (NPWS) national surveys (native woodlands, reef systems, tidal habitats, grasslands, peatlands etc.). Trees and woodlands of national importance have been identified.

The SEA has made use of available data sources including those from the NPWS, the EPA's Framework National Ecological Network for Ireland and CORINE land cover mapping.

The SEA has been informed by the findings of the AA (see Section 1.3.3) and will follow elements of Integrated Biodiversity Assessment with reference made to the EPA's 2013 Integrated Biodiversity Impact Assessment - Streamlining AA, SEA and EIA Processes: Practitioner's Manual.

As well as considerations related to European sites - a focus has been placed on protected species outside of these designations such as bats[29], breeding birds[30], badgers[31] etc. as well as all related species listed within the Flora (Protection) Order, 2022 (S.I. No. 235 of 2022)[32].

[29] The Habitats Directive (1992/43/EEC) and Birds Directive (2009/205/EEC) provides legal protection for habitats and species of European importance. The overall aim of the Habitat and Birds Directives are to maintain or restore the "favourable conservation status" of habitats and species of European Community Interest. These habitats and species are listed in the Habitats and Birds Directives (Habitats Directive as above and Directive 2009/205/EC on the conservation of wild birds) with Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) designated to afford protection to the most vulnerable among them. These two designations are collectively known and referred to as European sites. Articles 6(3) and 6(4) of the Habitats Directives set out the decision-making tests for plans and projects likely to affect such sites. Article 6(3) establishes the requirement for AA. These requirements are implemented in the Republic of Ireland by the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) and the Planning and Development Act 2000 (as amended). Further to the requirements of considerations related to European sites protected Annex IV of the Habitats Directive identifies priority species which are afforded protection in their own right - these include all Irish species of bats. Bats are also protected under the Irish Wildlife Acts, 1976 and 2000.

[30] Irish Wildlife Acts, 1976 (as amended)

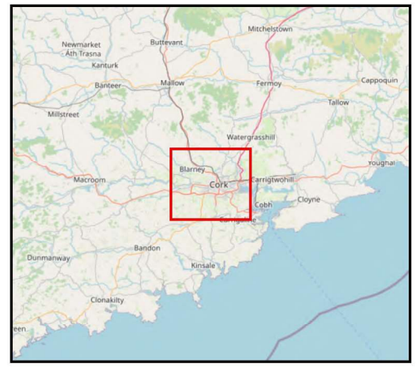
[31] Irish Wildlife Act 1976 (as amended) and Bern Convention Appendix III

[32] Which gives legal protection to 68 species of vascular plants 65 species of bryophytes in the Republic of Ireland (25 liverworts and 40 mosses). The current list of plant species protected by Section 21 of the Wildlife Acts is set out in the Flora (Protection) Order, 1999 (as amended).

4.3.1 Key Issues Related to the Draft LACAP

The key considerations in relation to Biodiversity, Flora and Fauna are as follows:

- Route selection and classification criteria are a key consideration in the development of blueways and greenways within the Draft LACAP due to the largely linear nature of these developments.
- The potential for effects on non-designated biodiversity features e.g. important habitats and species outside designated sites - particularly with regard to fragmentation, barriers to movement and displacement.
- The potential for effects on protected areas: National and European sites (e.g. SPAs) and other Natural Heritage Sites and Conservation Interest Sites e.g. refuge for fauna or flora, wildfowl reserves.
- The potential to spread invasive species.
- The potential for biodiversity enhancement.



Legend

- Local Authority Boundaries
- Special Protection Area (SPA)
- Special Area of Conservation (SAC)

Special Areas of Conservation and Special Protected Areas

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO:	4.3
CLIENT:	CORK CITY COUNCIL
DATE:	15/08/2023
SCALE:	1:70,000 @ A3

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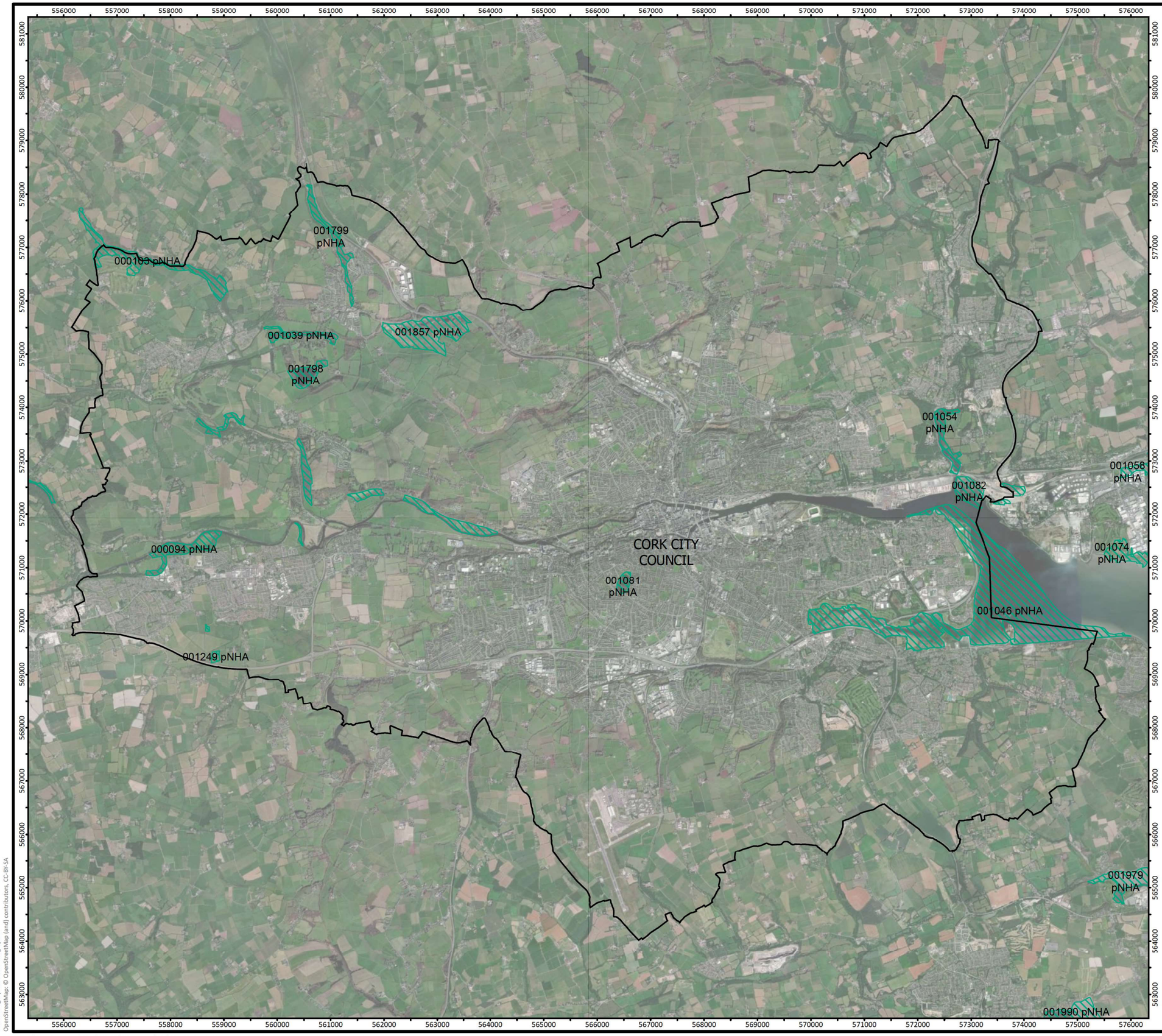

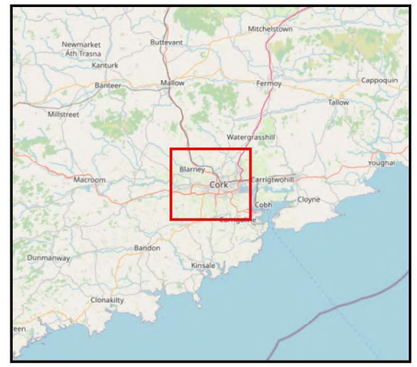

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- Local Authority Boundaries
- Natural Heritage Areas
- Proposed Natural Heritage Areas

Natural Heritage Areas and proposed Natural Heritage Areas in Ireland

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO:	4.4		
CLIENT:	CORK CITY COUNCIL		
DATE:	15/08/2023	**SCALE:**	1:70,000 @ A3

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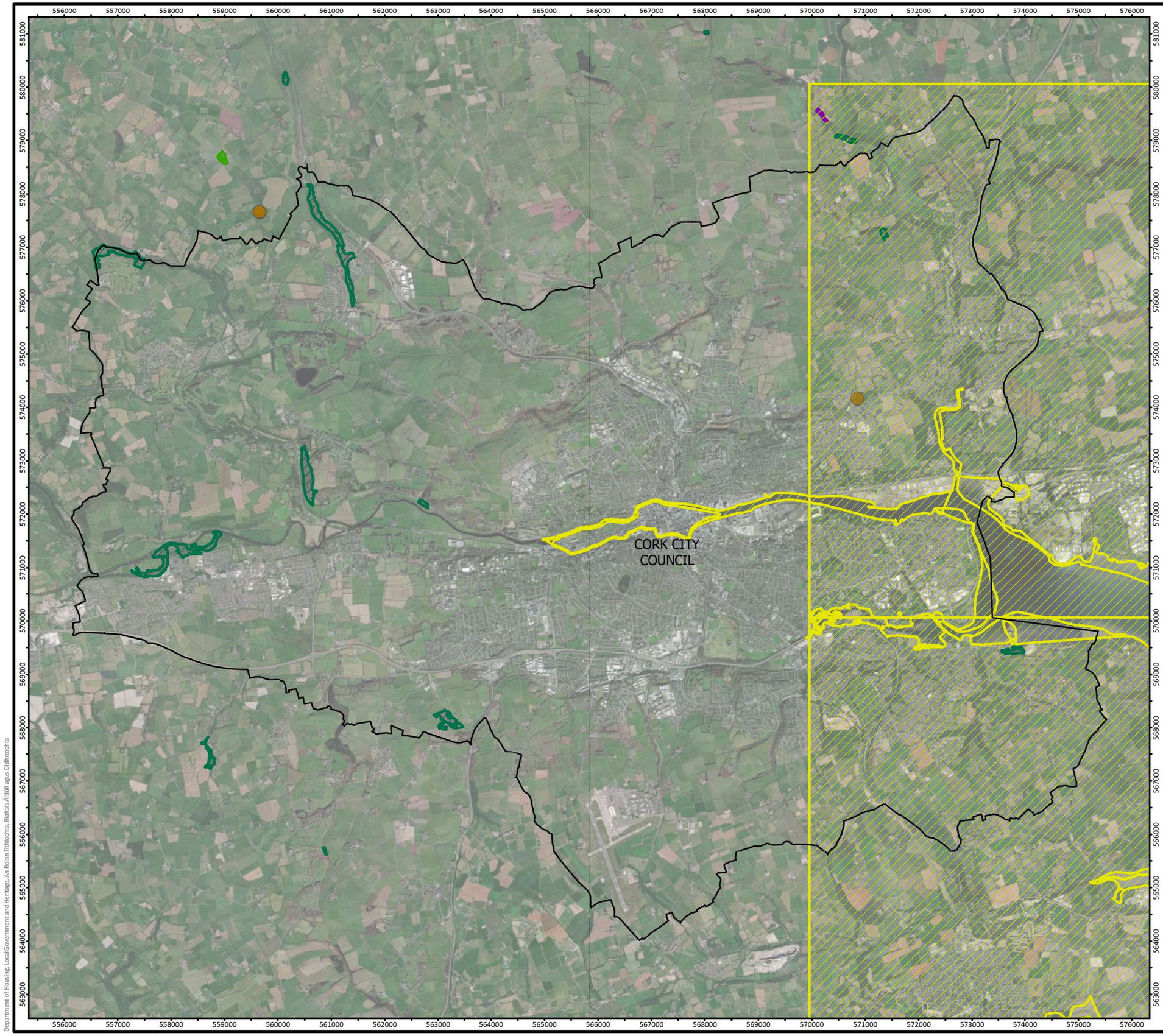

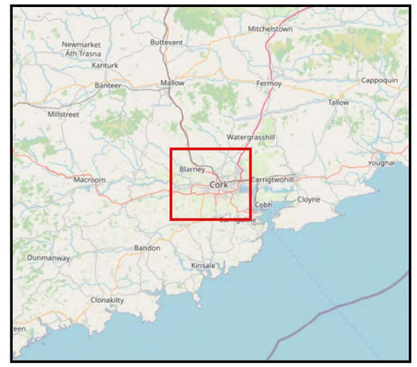

Legend

Local Authority Boundaries

Article17HabitatsDetailedDistributionPointGDPR

Bogs, Mires and Fens

Article17HabitatsDetailedDistributionPolygonGDPR

Coastal

Forests

Grasslands

Heath and Scrub

Potential Habitat Sensitivities - Areas likely to contain Annex I habitats

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO: 4.5

CLIENT: CORK CITY COUNCIL

DATE: 15/08/2023 **SCALE:** 1:70,000 @ A3

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4.4 Landscape, Seascape and Visual Amenity

The Port of Cork is a port of national significance and a significant driver of economic development in the Cork region. The Port of Cork is considered a 'Tier 1' Port by the Southern Regional Assembly RSES. The coastline is amongst the most sensitive and valuable resources, in terms of natural and cultural heritage, scenic beauty and recreation.

The Cork City Council Landscape Study (2008)[33] for Cork City divides the City into 8 Landscape Character Areas. Areas of High Landscape Value display an intrinsic landscape character and a special amenity value. Landscape Preservation Zones are areas in need of special protection as their character and amenity value is considered to be to highly sensitive to development. These are identified in the Plan and must be considered when assessing planning applications.

In addition to this, Scenic Routes and Areas of High Amenity have also been identified in the City. These comprise of:

Table 4-3: Landscape Character Areas and High Amenity Areas

Environmental Features	Description
Landscape Character Areas (LCAs)	• Estuarine / Riverine • Suburban residential • Natural harbour • Urban sylvan character • Historic urban core • Urban industrial / commercial / institutional • Fine-grained inner-city residential • Rural agricultural
High Amenity Areas	• Fitzgerald's Park • Mardyke Gardens • The Marina • The Medieval City • Docklands

The above and any other or emerging landscape designations will be considered by the assessment.

The SEA assessment of landscape will utilise information from the following sources:

- Cork City environmental sensitivity mapping
- The National Landscape Strategy for Ireland
- Tree Preservation Orders
- Forest cover/Indicative Forest Strategies[34]

[33] Cork City Landscape Study (2008). This Study referred to the pre-2019 City area, and Cork City Council will undertake a revised landscape study that addresses the entirety of the administrative area including the urban towns, villages and suburbs.
[34] Department of Agriculture, Food and the Marine

- Cork City Development Plan
- Cork City Council Landscape Study (2008)

4.4.1 Key Issues Relating to the Draft LACAP

The key issues in relation to Landscape, Seascape and Visual Amenity are as follows:

- Effects of green infrastructure (i.e. blueways, greenways) and renewable energy farm developments on areas of designated landscape quality and scenic views etc.
- Sensitivity of the landscape to change from green infrastructure development.

4.5 Cultural Heritage - Archaeological and Architectural

Archaeological sites are legally protected[35]. The SEA Environmental Report has included information on the archaeological heritage of Cork City. One of the primary sources of information for known archaeological features is the Record of Monuments and Places (RMP)[36]. The RMP is an inventory of sites and areas of archaeological significance.

There are 60 archaeological sites within Cork City Centre including standing stones and medieval walls and c. 400 entries to the RMP within the surrounding towns, villages and hinterland. Churches, houses, distilleries, factories and graveyards are amongst the most common recorded monuments and sites of significant archaeological, historic and cultural importance include St. Anne's Church, St. Fin Barre's Cathedral, Blarney Castle Estate and Elizabeth Fort. Clusters of archaeological heritage are concentrated around the City's historic core and within the centres of other settlements in the Plan area. The City's historic core consists of the Medieval City and Georgian City with many sites of significant archaeological interest. Cork City Centre is also designated a Zone of Archaeological Potential. The locations of the known archaeological sites are detailed in Figure 4-6.

The SEA Environmental Report has also included information on the architectural heritage of Cork City including that relating to designations such as the Record of Protected Structures (RPS). Local authorities compile and maintain the RPSs[37]; these RPSs are listed in the City and City Development Plans and some are available in digital map format. The RPS for Cork City Council can be found in Volume 3 of the City Development Plan 2022-2028. There are hundreds of entries to the RPS within the City[38], which include many notable buildings such as: Brian Boru Bridge and City Hall. Cork City has an important vernacular heritage with many important historic buildings and structures. Historic Street Character Areas are designated within Cork City and consist of groups of buildings with architectural and social interest, including a number of older residential areas outside the City Centre. Individual buildings of character are also identified, including farmhouses, cottages, stone walls and other local features that contribute to the architectural heritage of the area.

[35] National Monuments Acts 1930 (as amended), the National Cultural Institutions Act 1997 (as amended) and the Planning and Development Act 2000 (as amended)
[36] Data available at National Monuments Service - Archaeological Survey of Ireland - Datasets - data.gov.ie
[37] Under Section 51 of the Planning & Development Act 2000 (as amended).
[38] *Cork City Development Plan 2022-2028*

It is acknowledged that the register of protected structures documented in CDPs may not represent all Ministerial recommended sites/structures which are included in the National Inventory of Architectural Heritage (NIAH)[39]. The purpose of the NIAH is to identify, record, and evaluate the post-1700 heritage of Ireland and there are over 50,000 listings on the NIAH in Ireland (DAHRRG, 2022). These provisions include historic gardens, designed landscapes and underwater archaeological heritage[40].

The Department of Housing, Local Government and Heritage has developed the Heritage Ireland 2030[41] plan, published in February 2022, serving the purpose of informing the decision-making process. An Architectural Conservation Area (ACA) is a place, area, group of structures or townscape designated for its special characteristics and distinctive features. An ACA may or may not include Protected Structures. In an ACA, protection is placed on the external appearance of such areas or structures. There are 42 ACAs designated within the City.

The SEA assessment of Cultural Heritage - Archaeological and Architectural has utilised information from the following sources:

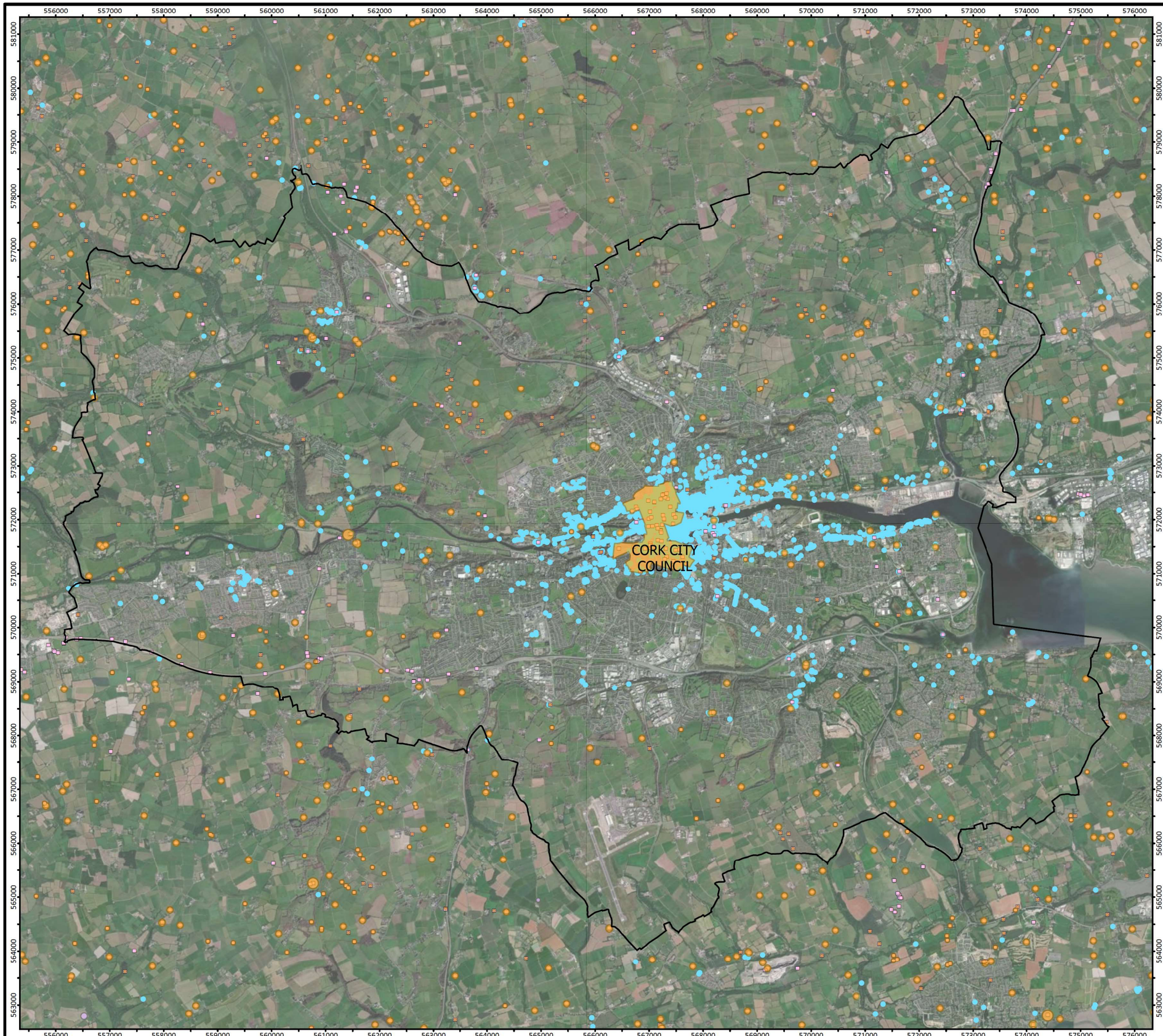
- The Department of Arts, Heritage Regional, Rural and Gaeltacht Affairs[42] (including underwater archaeology such as wreck data[43])
- National Monuments Service (including the Underwater Unit)
- Built Heritage and Architectural Policy Section (the NIAH)[44]
- City Development Plan 2022-2028
- Heritage Council
- United Nations Educational, Scientific and Cultural Organization (UNESCO)

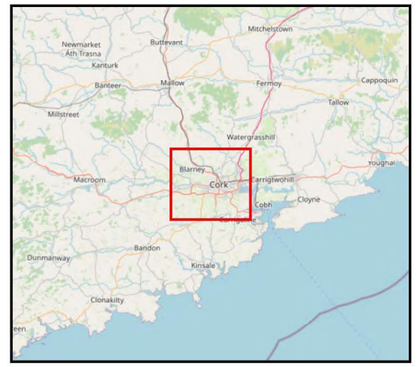
4.5.1 Key Issues Relating to the Draft LACAP

The key issues in relation to Cultural Heritage are as follows:

- The potential impact of the development of green infrastructure on archaeological and architectural heritage.
- No existing conflicts with legislative objectives governing archaeological and architectural heritage have been identified.

[39] Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999 (as amended) Data available at National Inventory of Architectural Heritage (NIAH) National Dataset - Datasets - data.gov.ie
[40] Department of Housing, Local Government and Heritage. 2015. Advice to the Public on Ireland's Underwater Archaeological Heritage
[41] Available at Heritage Ireland 2030 | gov.ie/housing (www.gov.ie)
[42] Department of Arts, Heritage and the Gaeltacht
[43] Available at Wreck Viewer | National Monuments Service (archaeology.ie)
[44] Data available at National Inventory of Architectural Heritage (NIAH) National Dataset - Datasets - data.gov.ie





Legend

- Local Authority Boundaries
- National Inventory of Architectural Heritage (NIAH)
- National Monuments Service
- SMRZones
- National Monuments Service - Zones of Notification

Archaeological Heritage and National Monuments Map

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO:	4.6
CLIENT:	CORK CITY COUNCIL
DATE:	15/08/2023
SCALE:	1:70,000 @ A3

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4.6 Soils

The types of soils found covering the City[45] include the following:

Table 4-4: Soil Types Covering the City

Soil Type	Description
Dominant Soils	
Urban soils	Urban soils are soils which have been disturbed, transported or manipulated by human activity in the urban environment and are often overlain by a non-agricultural, man-made surface layer that has been produced by mixing, filling or by contamination of land surfaces in urban and suburban areas. These soils are found mainly in proximity to built-up parts of the city.
Brown Earth	Brown earths are well drained mineral soils, associated with high levels of natural fertility. These soils are found to the north, south and west of the city.
Other Soils	
Alluvial soils	These are associated with alluvial (clay, silt or sand) river deposits. These are found in the flood plains of rivers and streams.
Gleys	Gleys are soils showing the effects of poor drainage and have developed as a result of permanent or intermittent water logging. This may be due to a high-water table, to a 'perched' water table caused by the impervious nature of the soil itself, or to seepage of runoff from slopes. Most gleys have poor physical conditions, resulting in restricted growth in spring and autumn. These are found in the south-east of the city.
Brown Podzols	Brown podzolic soils are characterized by a comparatively thin organic covering and an organic-mineral. These are found mainly in the north, north-east and north-west of the city.

Peatlands are unique systems comprising of peat soil providing as significant carbon stores and supporting a range of unique species. Active blanket bogs and active raised bogs are considered to be priority habitats, listed on Annex I of the EU Habitats Directive. Peat soils are often indicative of areas that are the most sensitive to development due to ecological sensitivities and impeded drainage issues. Raised bog (rain-fed) peat soils have been identified in the north-west of the city. Outcropping rock is also identified in a number of upland and coastal locations.

The SEA will examine issues including the loss of soils/soil sealing, as a result of greenfield development, and interactions with biodiversity and carbon storage, such as those that can occur as a result of development in peatland areas.

The audit of Geological sites found in Cork City was completed in 2022 and identified 8 Geological Sites[46]. Previous Landslide Events and Landslide Susceptibility Mapping sources has been considered by the SEA.

[45] Teagasc.ie. General Soil Map.
[46] Geological Survey of Ireland (2022) *The Geological Heritage of Cork City.*

The SEA of Soils has utilised information from the following sources:

- Geological Survey Ireland (GSI)
- Teagasc
- Infomar[47]
- EPA

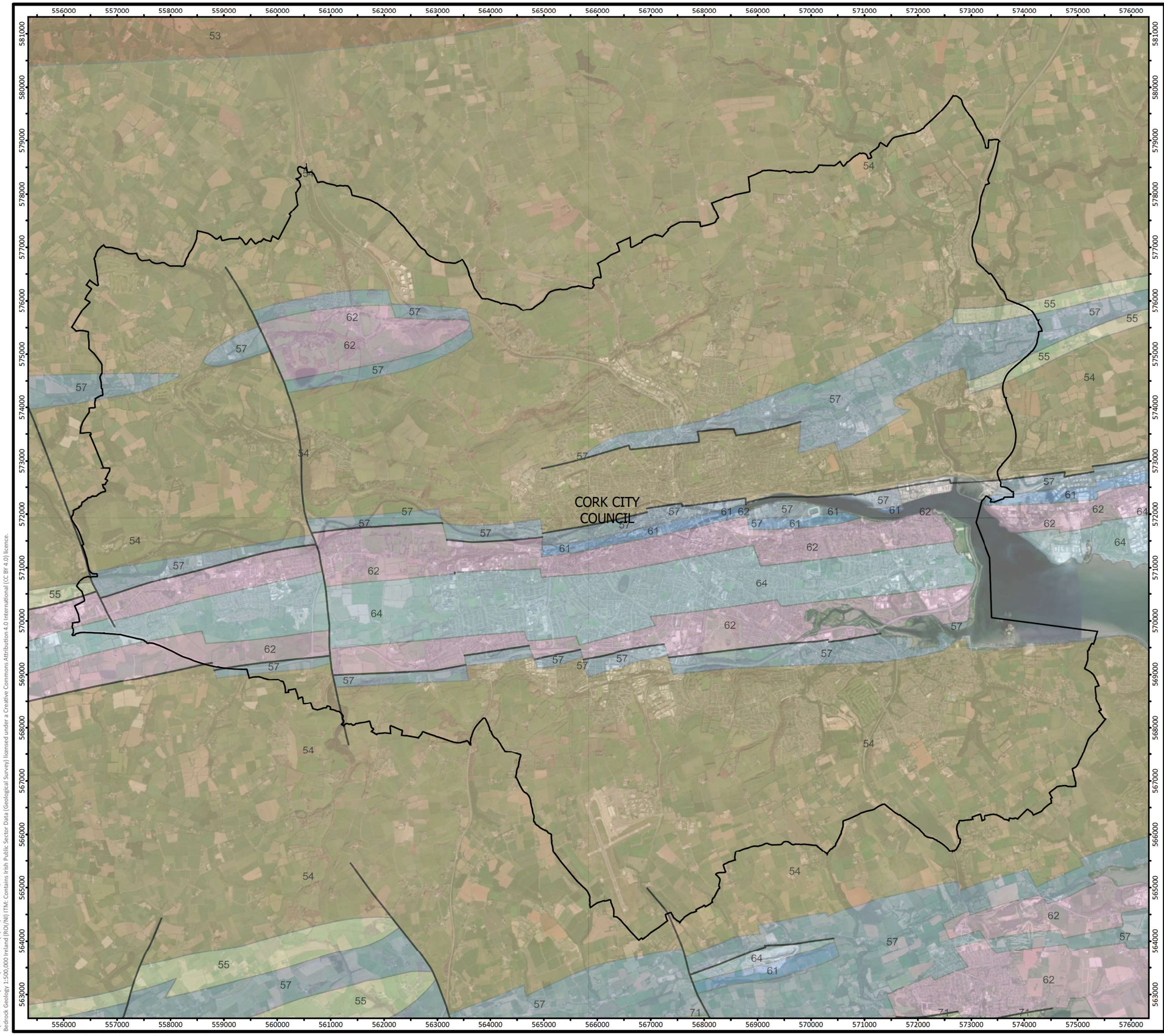
There is no legislation solely directed to soil protection in Ireland. In 2006, the European Commission (EC) developed a Soil Thematic Strategy that aims to protect soils and ensure the sustainable use of soils across Europe. Although a proposal for a Soil Framework Directive was withdrawn in 2014, the importance of sustainable soil management was recognised in the Seventh Environment Action Programme, where sustainable land management is to be achieved by 2020.

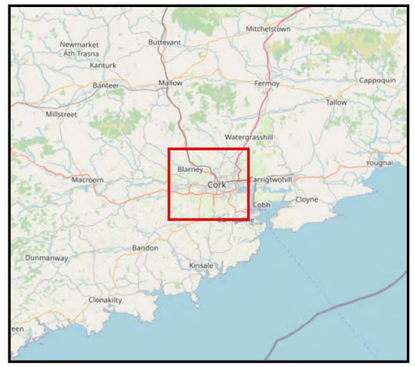
4.6.1 Key Issues Relating to the Draft LACAP

The key issues in relation to Soils are as follows:

- Potential for impacts on soil resources.
- Potential impacts to soils (land) vulnerable to erosion.
- Potential for unearthing contaminated material.

[47] Seabed and Sediment Data | Infomar





Legend

Local Authority Boundaries

Bedrock Geology 500k (ROI/NI)

- 54, Continental redbed facies; Sandstone, conglomerate & siltstone (in places extends into the Carboniferous)
- 55, Shallow marine, (Cork Group, Old Head Sandstone Fm); Sandstone & mudstone
- 57, Marine (Cork Group) (extends into the Visean); Mudstone, sandstone & thin limestone
- 61, Marine shelf & ramp facies; Argillaceous dark-grey bioclastic limestone, subsidiary shale
- 62, Waulsortian mudbank; Pale-grey massive limestone
- 64, Marine shelf facies; Limestone & calcareous shale

Bedrock Geology

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO:	4.7
CLIENT:	CORK CITY COUNCIL
DATE:	15/08/2023
SCALE:	1:70,000 @ A3

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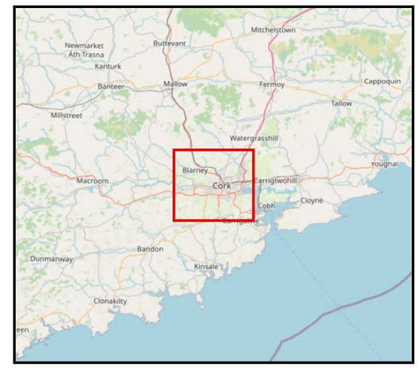

Legend

- Local Authority Boundaries
- Geological Heritage Sites (Audited Boundaries)
- Geological Heritage Sites (Unaudited Boundaries)

Geological Heritage Sites

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO:	4.8		
CLIENT:	CORK CITY COUNCIL		
DATE:	15/08/2023	**SCALE:**	1:70,000 @ A3

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4.7 Land Use

Information on land use in Cork City can be obtained from the CORINE Land Cover (CLC) inventory and Ireland's Marine Atlas[48]. These data sources have archives which document land use change as well as existing land use.

The CORINE database is the dominant land use database; however, some sectors have additional spatial data resources such as forestry. The Forestry Service have produced a GIS based Forest Inventory Planning System (FIPS) to act as an aid in the long-term spatial planning of national forest, and to provide guidance to forestry grants. Additional sources of further land use data include the NPWS[49].

The SEA process has considered land use impacts - utilising data from sources such as:

- CORINE Land Cover Database
- Teagasc
- EPA
- NPWS
- Forest Service
- Marine Institute
- Sea Fisheries Protection Authority (SFPA)
- GSI data

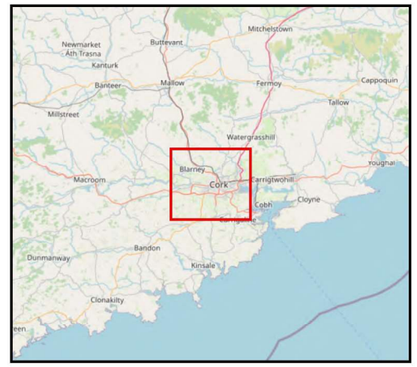
4.7.1 Key Issues Relating to the Draft LACAP

The key issues in relation to land use are as follows:

- Potential constraints on other sectors such as agricultural, forestry and fisheries, primarily related to construction and operation of infrastructure projects (i.e. solar farms, blueways) associated with the Draft LACAP.

[48] Available at Ireland's Marine Atlas
[49] Sources such as the Lesser Horseshoe Bat Species Action Plan 2022-2026, Draft National Peatland Strategy, Draft Raised Bog SAC Management Plan, and Draft Raised Bog NHAs Review.

CORK CITY COUNCIL



Legend

Local Authority Boundaries

CORINE Land Cover 2018

- 111 Continuous urban fabric
- 112 Discontinuous urban fabric
- 121 Industrial or commercial units
- 122 Road and rail networks
- 123 Sea ports
- 124 Airports
- 131 Mineral extraction sites
- 141 Green urban sites
- 142 Sport and leisure facilities
- 211 Non-irrigated land
- 231 Pastures
- 242 Complex cultivation patterns
- 243 Land principally occupied by agriculture with areas of natural vegetation
- 311 Broad-leaved forest
- 312 Coniferous forest
- 313 Mixed forest
- 324 Transitional woodland scrub
- 421 Salt Marshes
- 423 Intertidal flats
- 522 Estuaries

Land Use (CORINE)

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO: 4.9

CLIENT: CORK CITY COUNCIL

DATE: 15/08/2023 **SCALE:** 1:70,000 @ A3

N W E S

0 0.5 0.9 2 km

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4.8 Air Quality and Noise

The Air Quality in Ireland 2021 report prepared by the EPA identifies that:

- Air quality in Ireland is generally good, however, there are concerning localised issues that are negatively impacting the air we breathe.
- Air quality monitoring results in 2021 show that fine particulate matter ($PM_{2.5}$) mainly from burning solid fuels in our homes, and nitrogen dioxide (NO_2) mainly from road transport, remain the main threats to good air quality.
- EPA monitoring shows that fine particulate matter ($PM_{2.5}$) and nitrogen dioxide (NO_2) levels are within the current EU legal limits, however these pollutants exceed the World Health Organization (WHO) (2021) guidelines[50].

The National Clean Air Strategy (DECC, 2023) referred to the most recent projections by the EPA in 2022 and states that Ireland is on track to meet the majority of EU commitments for national emissions levels by 2030, and there was only one exceedance of EU ambient air quality limit values since 2010.

Under the Clean Air for Europe Directive [Directive 2008/50/EC], EU member states must designate "Zones" for the purpose of managing air quality. For Ireland, four zones were defined in the Air Quality Standards Regulations (2011). The Cork City conurbation is defined as 'Zone B' out of the four zones in Ireland. The current air quality in Cork City is identified by the EPA as being of Good[51] status.

The EEA[52] states that "environmental noise can be defined as unwanted or harmful outdoor sound". The EU Noise Directive (2002/49/EC) relates to the assessment and management of environmental noise[53]. This Directive called for the development of strategic noise maps and action plans for major roads, railways, airports and cities. Existing noise related impacts can be seen in Figure 4-10; these will be considered throughout the SEA and AA processes in the development of the Draft LACAP.

The SEA has considered Air Quality and Noise using data from the following sources:

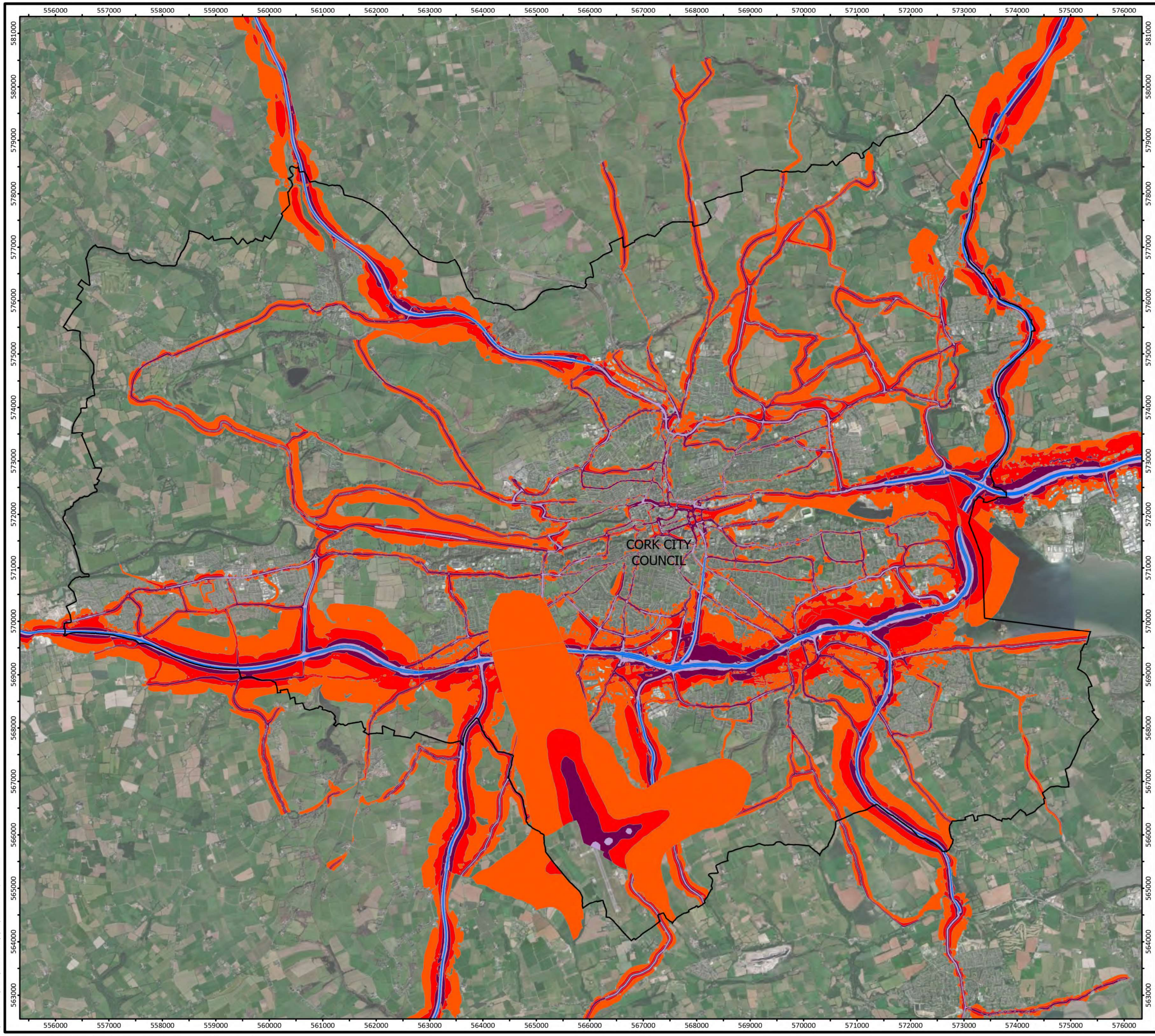
- EPA
- WHO

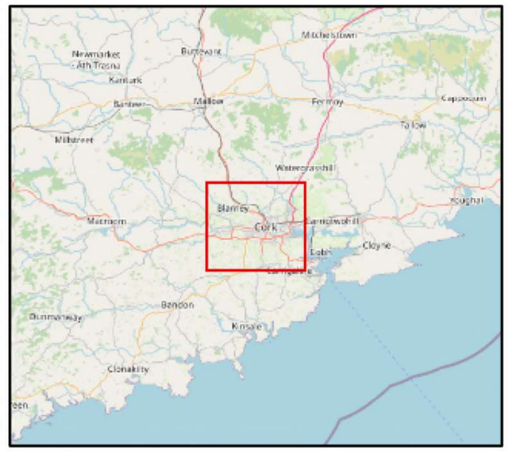
[50] World Health Organization. 2021.WHO global air quality guidelines: particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulphur dioxide and carbon monoxide. World Health Organization. https://apps.who.int/iris/handle/10665/345329. License: CC BY-NC-SA 3.0 IGO
[51] EPA AirQuality.ie - 22/08/2023
[52] EEA. 2022. Noise Data Briefing. Available at: Noise — European Environment Agency (europa.eu).
[53] This was transposed into Irish national legislation via the Environmental Noise Regulations (S. I. No. 140 of 2006).

4.8.1 Key Issues Relating to the Draft LACAP

Overall, the LACAP is likely to have positive effects on air quality due to the nature of the plan; however, there are potential issues which may arise due to the implementation. The key issues in relation to Air Quality and Noise are as follows:

- Blueway developments, particularly during the construction phase, may have a temporary negative impact on air quality and create noise pollution.
- Renewable energy developments may have impacts on noise pollution, particularly towards sensitive receptors which are in close proximity.





Legend

Local Authority Boundaries

Noise Round 3 Rail - Lden
- 55-59dB
- 60-64dB
- 65-69dB
- 70-74dB
- Greater than 75dB

Noise Round 3 Road - Lden
- 55-59dB
- 60-64dB
- 65-69dB
- 70-74dB
- Greater than 75dB

Noise Round 3 Airport - Lden
- 55-59dB
- 60-64dB
- 65-69dB
- 70-74dB
- Greater than 75dB

Noise Mapping Lden (Day, Evening, Night; a measurement over 24 hours)

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO:	4.10
CLIENT:	CORK CITY COUNCIL
DATE: 29/08/2023	**SCALE:** 1:70,000 @ A3

N S E W

0 0.5 0.9 2 km

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4.9 Water

The EU Water Framework Directive (WFD) (2000/60/EC) establishes a framework for the protection of both surface and groundwater. Transposing legislation outlines the water protection and water management measures required in Ireland to maintain high status of waters where it exists and to prevent any deterioration in existing water status. The second cycle of the River Basin Management Plan (RBMP) ran from 2018-2021, where separate plans were devised for all eight River Basin Districts (RBDs) with the objective of achieving at least 'good' status for all waters by 2027. The next RBMP 2022-2027 is currently in draft and is likely to be published before the completion of the SEA process for the Draft LACAP.

Water quality data is collected by the EPA[54]. The city is located mainly within the Lee River and Cork City Harbour catchments. The Celtic Sea lies on the west of the city's coastline. The WFD status of coastal water bodies (2016-2021) for Cork City Harbour is of moderate status and the Celtic Sea is identified as being of high status.

The EU Groundwater Directive (2006/118/EC) uses a holistic approach to groundwater by addressing the relationships between groundwater, surface water and ecological receptors. Groundwater is considered by its ecological status, which is based on two assessments: chemical and quantitative status. Both of these need to be in good condition for the overall water body to be classified as good.

The WFD groundwater status (2016-2021) underlying Cork City is generally identified as being of good status.

The WFD status of rivers and streams (2016-2021) draining Cork City ranges from good (sections of rivers and streams, including Moneygurney and Lee to moderate (sections of rivers and streams including: Curragheen) and to poor (sections of rivers and streams including: Bride and Glasheen).

Pressures on waterbodies that are failing to meet the WFD's overall objective of 'good' status will be identified by the SEA and policy responses will be recommended as necessary. The SEA will also provide information on aquifer vulnerability, aquifer productivity and entries to the WFD's Registers of Protected Areas.

Certain areas across the city are at risk of flooding from various sources including groundwater, pluvial, fluvial, estuarial and coastal. Cork City is located on the south coast of Ireland, and some of the Plan boundary is subject to flood risk from the Celtic Sea. There are various historic and predictive indicators of flood risk in the City, including along the Lee River and at various locations along the coastline.

The OPW is the lead agency tasked with the management of flood risk in the Republic of Ireland. In 2022, the OPW reviewed their 2016 Flood Risk Management Plans (FRMP). The purpose of each FRMP is to outline the long-term strategy to manage flood risk in Ireland. A number of settlements were identified by the OPW in 2012 as requiring detailed assessment of flood risk (Areas for Further Assessment)[55]. These settlements include – Cork City, Douglas, Togher, Glanmire and Tower.

A Strategic Flood Risk Assessment, as required by 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (Department of the Environment, Heritage and Local Government and Office of Public Works, 2009) and Circular PL 2/2014 (Department of Environment, Community and Local Government) was undertaken alongside the preparation of the City Development Plan. This document provides information of relevance to Climate Actions defined in the Draft LACAP, including information on land use zoning, flood risk management policy and flood risk indicators in the city.

[54] EPA Maps. Water.
[55] Available online at Microsoft Word - PFRA Main Report - Rev D.doc.

The GSI rates groundwaters according to both their productivity and vulnerability to pollution. Aquifer vulnerability refers to the ease with which pollutants of various kinds can enter into groundwater. The vulnerability of aquifers underlying the city are mapped on Figure 4-15. The GSI also rates aquifers based on the hydrogeological characteristics and on the value of the groundwater resource. This is referred to as aquifer productivity and is mapped on Figure 4-16.

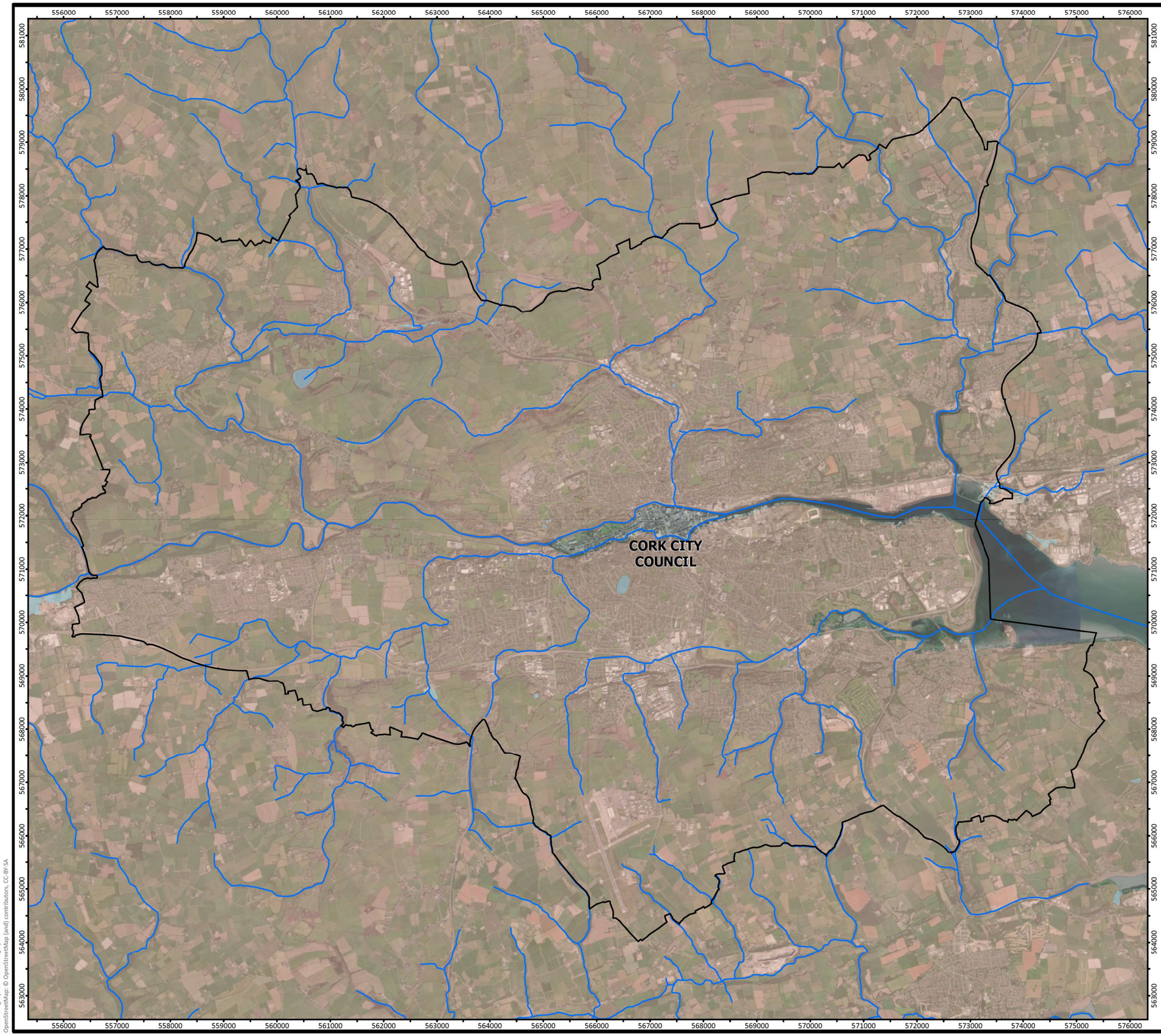
The Water assessment has utilised information from the following sources:

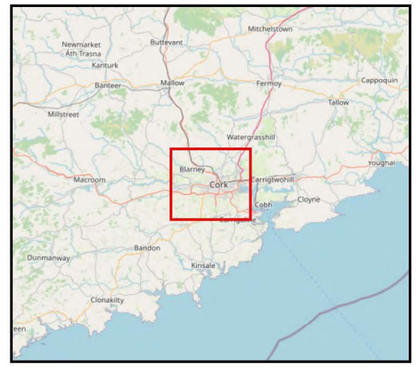
- EPA and Marine Institute - WFD Data
- GSI data on groundwaters, aquifers and bedrock information
- Catchment Flood Risk Assessment and Management (CFRAM) Study and associated FRMPs (OPW, as reviewed 2022)
- Flood Risk Assessment (FRA) Mapping[56] (OPW)

4.9.1 Key Issues Relating to the Draft LACAP

- Potential pressures and impacts on water body status from the construction of renewable energy and blueway projects i.e. increased sedimentation, groundwater recharge and accidental spillages.

[56] OPW (2022) Flood risk maps and data platform - Available at https://www.floodinfo.ie/map/floodmaps/





Legend

Local Authority Boundaries

Rivers

WFD Catchments

Catchment Name

Lee, Cork Harbour and Youghal Bay

Hydrology

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO:	4.11
CLIENT:	CORK CITY COUNCIL
DATE:	15/08/2023
SCALE:	1:70,000 @ A3

N W E S

0 0.5 0.9 2 km

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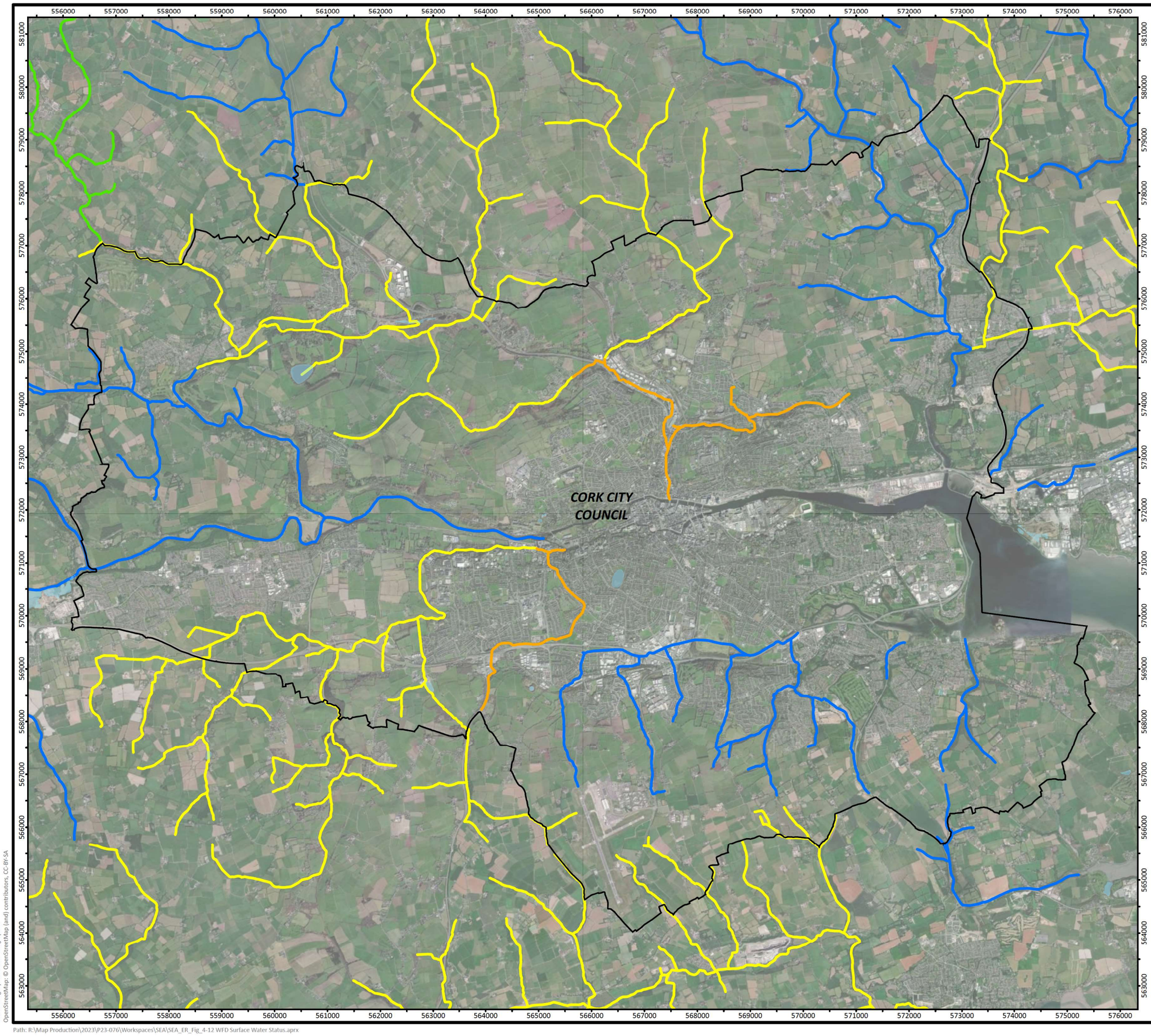

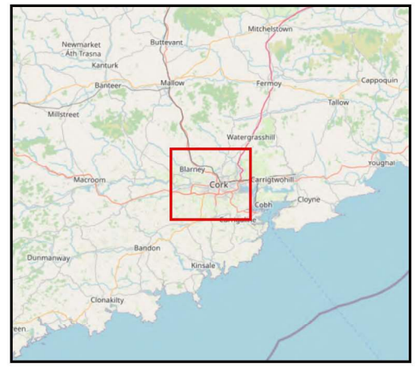

Legend

- Local Authority Boundaries
- WFD Lake Segments

EPA Rivers - WFD Status 2016 - 2021

- Bad
- Poor
- Moderate
- Good
- High
- Unassigned

WFD Surface Water Status

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Local Authority Climate Action Plans

FIGURE NO:	4.12		
CLIENT:	CORK CITY COUNCIL		
DATE:	15/08/2023	**SCALE:**	1:70,000 @ A3

N W E S

0 0.5 0.9 2 km

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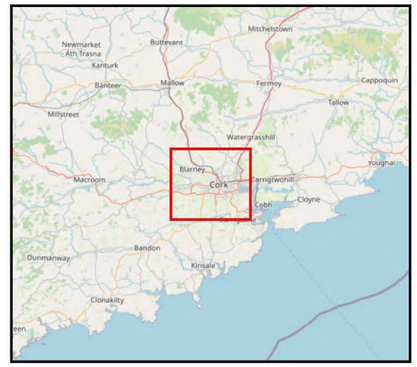
CORK CITY COUNCIL



Legend

Local Authority Boundaries

Bedrock Aquifers

Lk: Locally Important Aquifer - Karstified

Ll: Locally Important Aquifer - Bedrock Mod Productive Locally

Rkd: Regionally Important Aquifer - Karstified (diffuse)

Aquifer Classification

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Local Authority Climate Action Plans

FIGURE NO:	4.13		
CLIENT:	CORK CITY COUNCIL		
DATE:	15/08/2023	**SCALE:**	1:70,000 @ A3

N W E S

0 0.5 0.9 2 km

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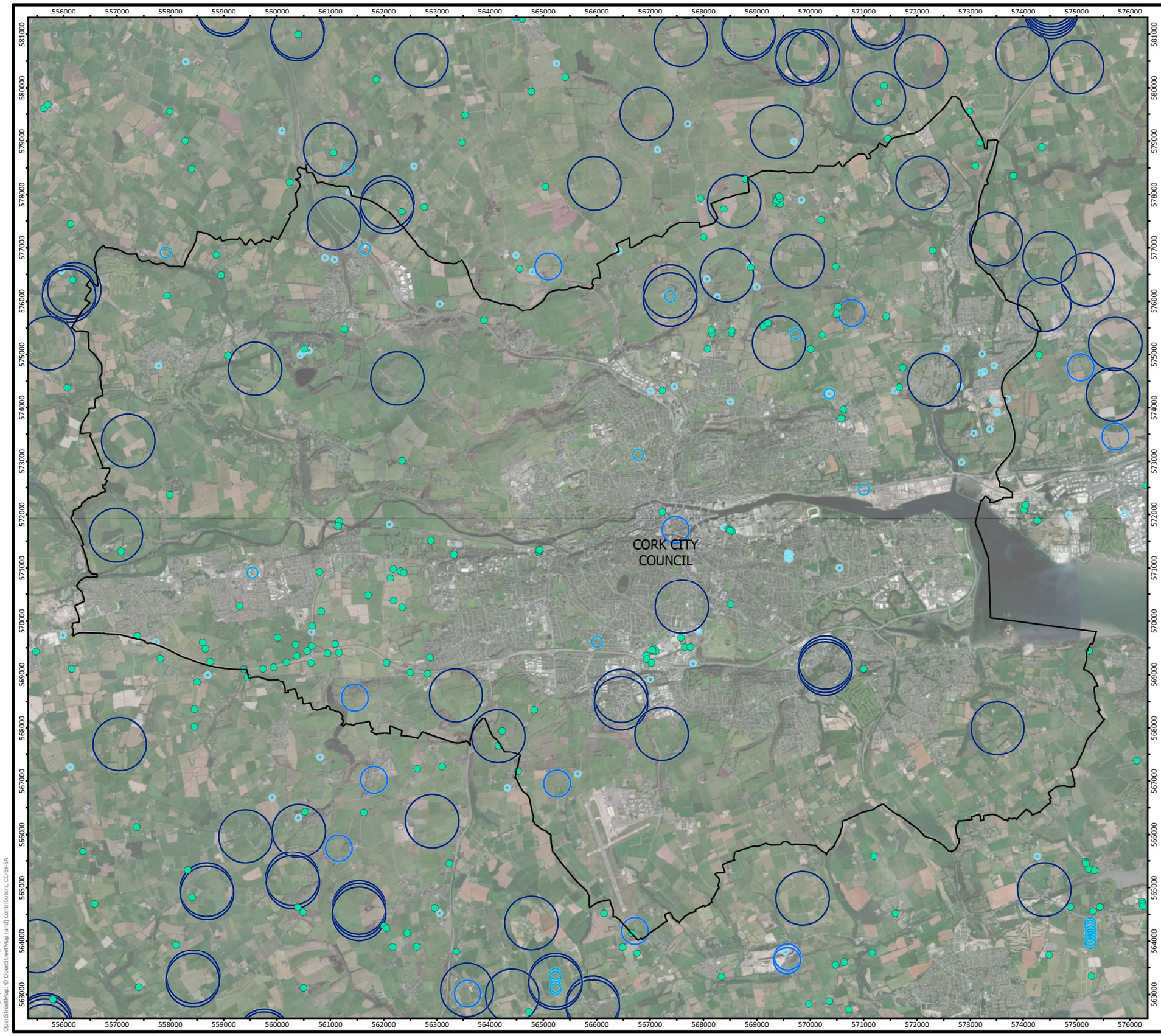

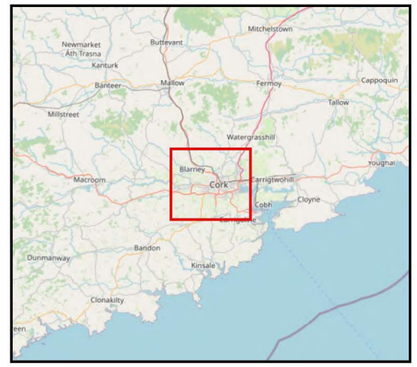

Legend

- Local Authority Boundaries
- Wells and Springs (10-50m Accuracy)
- Wells and Springs (50-100m Accuracy)
- Wells and Springs (100-200m Accuracy)
- Wells and Springs (200-500m Accuracy)
- Wells and Springs (500m-1km Accuracy)

Wells and Springs

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO:	4.14		
CLIENT:	CORK CITY COUNCIL		
DATE:	15/08/2023	**SCALE:**	1:70,000 @ A3

N W E S

0 0.5 0.9 2 km

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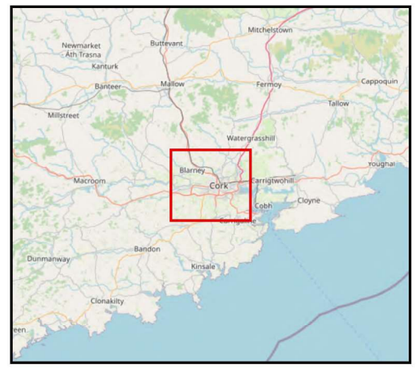

Legend

- Local Authority Boundaries

Groundwater Vulnerability

- E - Extreme
- H - High
- M - Moderate
- Water
- X - Rock Near Surface or Karst

Groundwater Vulnerability

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO:	4.15
CLIENT:	CORK CITY COUNCIL
DATE:	15/08/2023
SCALE:	1:70,000 @ A3

N W E S

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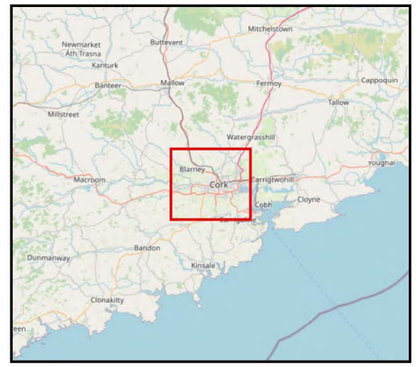

Legend

Local Authority Boundaries

Bedrock Aquifers

Ll: Locally Important Aquifer - Bedrock Mod Productive Locally

Groundwater Productivity

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO:	4.16
CLIENT:	CORK CITY COUNCIL
DATE:	15/08/2023
SCALE:	1:70,000 @ A3

N W E S

0 0.5 0.9 2 km

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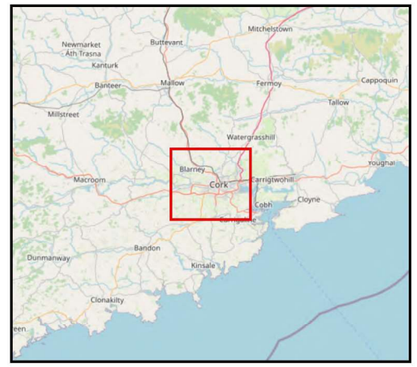

Legend

Local Authority Boundaries

Drinking-water Source Protection Areas

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO:	4.17
CLIENT:	CORK CITY COUNCIL
DATE:	15/08/2023
SCALE:	1:70,000 @ A3

N W E S

0 0.5 0.9 2 km

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Legend

- Local Authority Boundaries
- WFD Bathing Water Areas Polygon Features - graphic representation of beach only
- WFD Surface Water Polygons that intersect with BATH_BathingLocations Point Feature dataset
- Designated Bathing Water Locations Point Features (Officialy Designated Beach)

WFD Register of Protected Areas
-
Bathing Water Areas

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO:	4.18a
CLIENT:	CORK CITY COUNCIL
DATE: 16/08/2023	**SCALE:** 1:70,000 @ A3

N W E S

0 0.5 0.9 2 km

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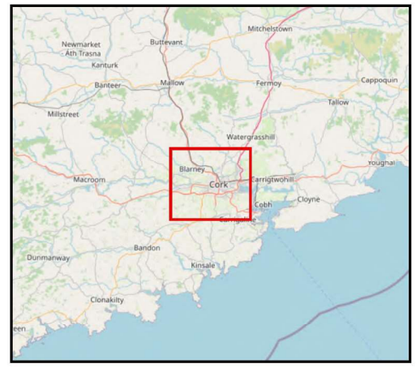

Legend

- Local Authority Boundaries
- Officially designated under S.I. 293/1988
- WFD Groundwater Bodies that intersect with Designated Salmonid Waters
- WFD Groundwater Bodies that intersect with Designated Salmonid Waters
- WFD Surface Water Polygons that intersect with Designated Salmonid Waters (Lake, Coastal and Transitional Water Bodies)

WFD Register of Protected Areas
-
Salmonid

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO: 4.18b

CLIENT: CORK CITY COUNCIL

DATE: 16/08/2023 **SCALE:** 1:70,000 @ A3

N W E S 0 0.5 0.9 2 km

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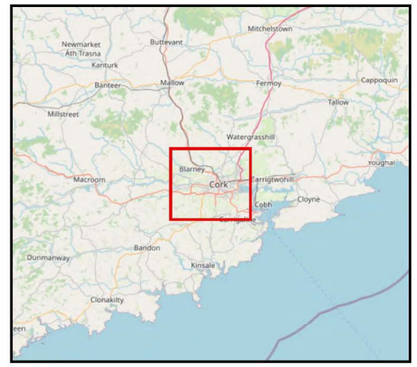
Path: R:\Map Production\2023\P23-076\Workspaces\SEA\SEA_ER_Fig_4-18 WFD Register of Protected Areas.aprx



Legend

- Local Authority Boundaries
- WFD Riverwater Bodies that intersect with WFD_RPA_Shellfish
- WFD Surface Water Polygons that intersect with WFD_RPA_Shellfish

WFD Register of Protected Areas
-
Shellfish Areas

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO: 4.18c

CLIENT: CORK CITY COUNCIL

DATE: 16/08/2023 **SCALE:** 1:70,000 @ A3

N W E S 0 0.5 0.9 2 km

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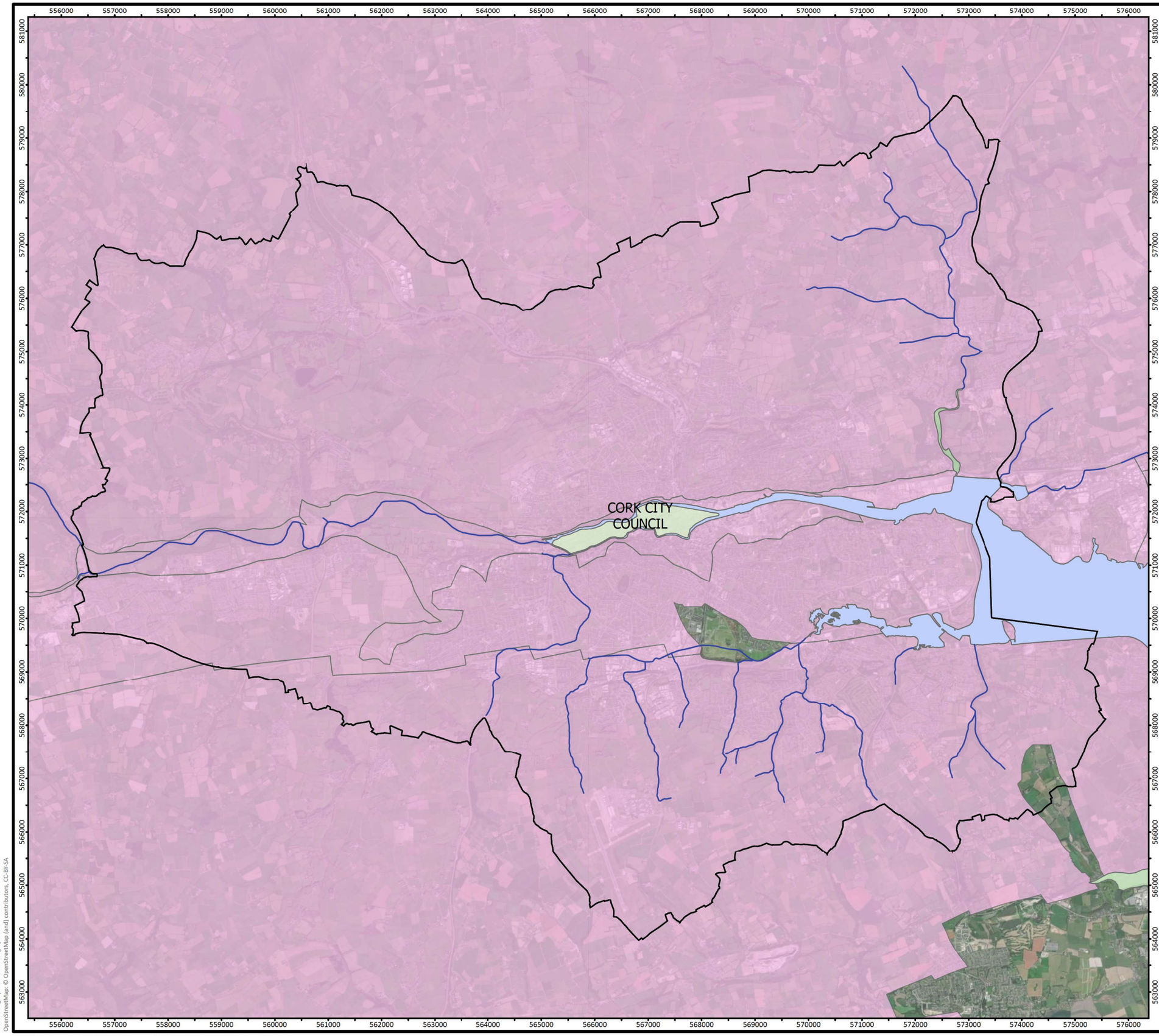
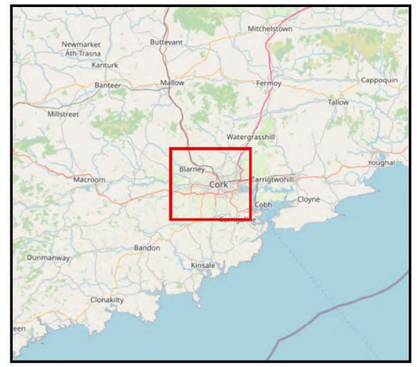
Path: R:\Map Production\2023\P23-076\Workspaces\SEA\SEA_ER_Fig_4-18 WFD Register of Protected Areas.aprx





Legend

- Local Authority Boundaries
- WFD Riverwater Bodies that intersect with Designated Nutrient Sensitive Areas (Pts, Polyline or Polygons)
- WFD Surface Water Polygons that intersect with Designated Nutrient Sensitive Areas (Pts, Polyline or Polygons) (Lake, Coastal and Transitional Water Bodies)
- WFD Groundwater Bodies that intersect with Designated Nutrient Sensitive Areas (Pts, Polyline or Polygons)
- Designated Surface Water Nutrient Sensitive Areas

WFD Register of Protected Areas
-
Nutrient Sensitive Areas

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO:	4.18d
CLIENT:	CORK CITY COUNCIL
DATE: 16/08/2023	**SCALE:** 1:70,000 @ A3

N W E S
0 0.5 0.9 2 km

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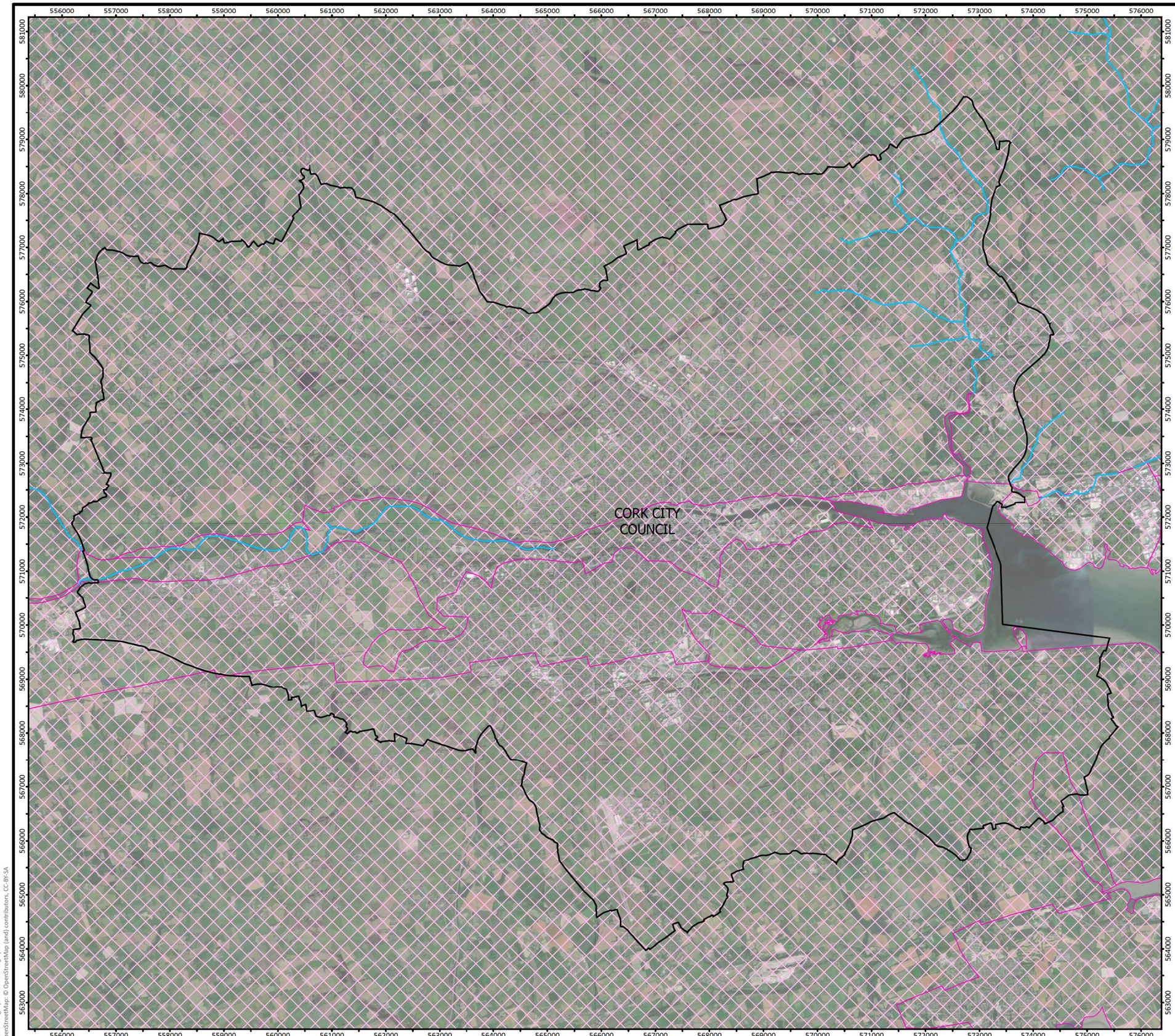
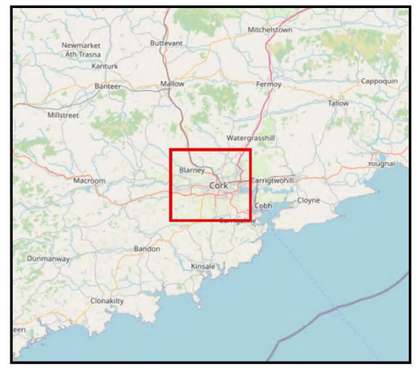
Path: R:\Map Production\2023\P23-076\Workspaces\SEA\SEA_ER_Fig_4-18 WFD Register of Protected Areas.aprx





Legend

- Local Authority Boundaries
- WFD Riverwater Bodies that are protected for drinking water
- WFD Groundwaters that are protected for drinking water

WFD Register of Protected Areas
-
Drinking Water

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO:	4.18e
CLIENT:	CORK CITY COUNCIL
DATE:	30/08/2023
SCALE:	1:70,000 @ A3

0 0.5 0.9 2 km

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Path: R:\Map Production\2023\P23-076\Workspaces\SEA\SEA_ER_Fig_4-18 WFD Register of Protected Areas.aprx

4.10 Material Assets

Other level material assets include transport infrastructure, power generation plants and supply networks, water supply, wastewater treatment infrastructure and waste disposal sites among others. Potential opportunities and conflicts associated with these assets will be considered in the SEA. Other material assets covered by the SEA include archaeological and architectural heritage (see Section 3.5) and natural resources of economic value, such as soil[57], air and water (see Sections 3.6, 3.8 and 3.9).

4.10.1 Water Services

4.10.1.1 Wastewater

Wastewater demand and capacity information at settlements that will be considered by the SEA, where available, includes[58]:

- Population served.
- Loading.
- Capacity.
- Level of treatment.
- Spare capacity or shortfall.
- Compliance with the Urban Waste Water Treatment Directive.
- Wastewater infrastructure investment needs.

The EPA produces annual reports on the treatment of urban wastewater from cities, towns and urban communities. The latest EPA 2022 report[59] 'Urban Waste Water Treatment in 2021' identifies the priority areas where resources must be targeted, in order to protect the environment from the harmful effects of waste water and deliver environmental improvements where they are most needed. Based on the EPA's assessment of monitoring information provided by Uisce Éireann and the enforcement activities carried out by the EPA, this report identifies urban areas with the most important environmental issues that must be addressed. Cork City is listed as a priority area.

4.10.1.2 Surface Water Drainage

Sustainable Urban Drainage systems (SUDS) can minimise the quantity and increase the quality of surface water runoff as well as mitigating adverse impacts of climate change. SUDS can also provide amenity and biodiversity benefits.

[57] Soil and geological resources will be considered under this topic including with respect to mineral locations and aggregate potential.
[58] Detailed water services information will inform the preparation of the SEA Environmental Report.
[59] Available at Monitoring & Assessment: Wastewater | Environmental Protection Agency (epa.ie)

4.10.2 Waste Management

The Waste Management Act 1996 requires Local Authorities to make a waste management plan either individually or collectively for their functional areas. In 2015, Cork City was guided by the Southern Waste Management Plan 2015-2021 which provided the framework for solid waste management in the region. Post 2021, waste management in Ireland is guided by the first National Waste Management Plan for a Circular Economy, which replaces the existing regional plans. This Plan sets out a framework for the prevention and management of waste in Ireland for the period 2023 to 2029.

4.10.3 Transport

Cork City is traversed by a number of major roads – the M8/N8, N22, N20, N40 and the N71. The City is served by the intercity commuter train services and local connections to metropolitan commuter towns. Further to this, Bus Eireann and a number of other private operators provide local and intercity bus services to the City. Upcoming transport and active travel projects that will serve the City and the Cork City area will be considered by the SEA, where available.

4.10.4 Green Infrastructure

Green infrastructure (GI) is a crucial component in building resilient communities capable of adapting to the consequences of climate change with trees, woodlands and wetlands providing carbon capture and slowing water flows while improving air quality. The Cork City Green and Blue Infrastructure Strategy 2022-2028 provides a vision and a robust spatial framework which will identify, protect, promote and enhance the green and blue infrastructure assets of the City. Existing Green Infrastructure in the city include River Lee, other rivers and streams, parks and open spaces, and resilient spaces (green roofs and vertical greening).

4.10.5 Public Assets and Infrastructure

Public assets and infrastructure that have the potential to be impacted upon by the Plan, if unmitigated, include settlements; resources such as public open spaces, parks and recreational areas; public buildings and services; transport and utility infrastructure (electricity, gas, telecommunications, water supply, waste water infrastructure etc.); forestry; and natural resources that are covered under other topics such as water and soil.

4.10.6 Land

The LACAP has the potential to assist with the reuse and regeneration of brownfield sites thereby contributing towards sustainable mobility and reducing the need to develop greenfield lands and associated adverse environmental effects. Brownfield lands are generally located within urban/suburban areas.

4.10.7 Renewable Energy Potential

Under EU Directive 2001/77/EC Renewable Energy, renewable energy sources are defined as renewable non-fossil energy sources such as, but not limited to wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas, biogases and biochar (i.e., the thermal treatment of natural organic materials in an oxygen-limited environment). Available information on renewable energy potential within and adjacent to the City – and any associated Plan provisions – will be considered by the SEA.

4.10.7.1 Energy Related Material Assets and Infrastructure

SEAI (2020[60]) published the kilotonnes of oil equivalent (ktoe) data which showed that 86% of Ireland's energy came from fossil fuels at that time. Transportation and residential represented the highest resource demand. The generation of renewable energy has been increasing over the past ten years, with a growth in the number of wind farms (from 5.8% of gross final energy consumption in 2010 to 13.5 of GFC in 2020[61]). This is an important feature of Cork City's function onshore.

All traditional power plants are in a process of transition to renewable/sustainable sources to align with the targets in the Climate Action Plan 2023.

The SEA of Material Assets has utilised information from the following sources:

- Climate Change Advisory Council
- Department of Defence
- Department of Housing, Local Government, and Heritage (DHLGH)[62]
- EPA - marine disposal sites
- Electricity Supply Board (ESB)
- Iarnród Éireann
- Irish Bioenergy Association (IrBEA)
- Irish Solar Energy Association (ISEA)
- Irish Wind Energy Association (IWEA)
- Marine Atlas (for shipping port and route data)
- Ports Authority
- SEAI
- SFPA
- Transport Infrastructure Ireland (TII)
- Uisce Éireann
- Waterways Ireland

4.10.8 Key Issues Relating to the Draft LACAP

It is not likely that the LACAP will result in significant effects to wastewater treatment or water services in general, given the nature of the plan. The key issues in relation to Material Assets are as follows:

- Disruptions to existing transport infrastructure through the development of alternative options such as active travel routes could occur.
- Demands for increased renewable infrastructure and associated connection networks.
- Visual impact of developments in sensitive areas.

[60] SEAI. 2020. SEI01 - Energy Balance data resource; Available at SEI01 - Energy Balance (ktoe) - Datasets - data.gov.ie
[61] SEAI. 2020. Overall renewable energy share - available at Renewables | Energy Statistics In Ireland | SEAI
[62] Energy Offshore Renewable - Datasets - data.gov.ie

- Effects on sensitive receptors with increased demands for active travel/green/renewable infrastructure, in particular during the construction phase.
- The potential for effects on existing green and blue infrastructure and key ecological corridors from inappropriate development.

4.11 Tourism and Recreation

Tourism and recreation are influenced by a range of factors in Ireland. International tourism has increased in recent years. Failte Ireland has recently published their four brand strategies[63] which will define the spatial scope and spread of future tourism developments within Ireland. The 'Wild Atlantic Way' brand was launched, and the global brand success resulted in infrastructure demands to previously less trafficked areas. Cork City Council has developed the Visit Cork Sustainability Strategy (2023-2030). Cultural Heritage sites also support heritage-related tourism and recreation, see Section 4.5. Landscape is also an important aspect in terms of Tourism, see Section 4.4.

The assessment of Tourism and Recreation will utilise the follow information sources:

- Department of Transport, Tourism and Sport
- Central Statistics Office (CSO)
- Recreational sailing groups and ferry operators
- Fáilte Ireland
- National Trails Office

4.11.1 Key Issues Relating to the Draft LACAP

The key issues in relation to Tourism and Recreation are as follows:

- Green infrastructure development may have the potential to restrict or reduce the quality of resources important for recreation and/or tourism including angling facilities, boating activities and/or associated resources.
- The promotion or development of blueways and greenways could add additional loading pressures in terms of visitor interactions at sensitive areas such as trampling, disturbance, erosion, littering etc.

4.12 Climate Change

The recent Climate Action and Low Carbon Development (Amendment) Act 2021 was established to provide for the approval of plans by the Government in relation to climate change. This aims at pursuing the transition to a climate resilient, biodiversity rich and climate neutral economy by no later than the end of the year 2050. Ireland's Climate Action Plan 2023 sets out Ireland's national and sectoral targets in this regard.

[63] Wild Atlantic Way, Dublin's a Breath of Fresh Air, Ireland's Ancient East and Ireland's Hidden Heartlands

Future changes in climate and associated impacts on sea level, rainfall patterns/intensity and river flow will influence flooding frequency and extent in the future. Local Authorities in compliance with the Regional Planning Guidelines are attempting to adopt sustainable flood risk strategies in areas likely to be at risk of flooding in the future in the context of climate change and changing weather patterns. Changes to climate could lead to an increase in flooding events in Ireland. The OPW has undertaken a number of Flood Risk Management Studies for different River Basin Districts (RBDs) in Ireland. These studies have identified the areas which are most at risk and future management plans have been advised; these are adopted by the OPW. In some cases, mitigation measures will involve the construction of physical flood defences. The SEA has considered data related to climate from the following sources:

- Department of the Environment, Climate and Communications
- Climate Change Advisory Council's Annual Review 2023
- EPA
- CFRAM Studies[64]

4.12.1 Key Issues Relating to the Draft LACAP

The key issues in relation to Climate Change are as follows:

- The Draft LACAP will contribute to the targets, set out in the Climate Action Plan 2023.
- The potential impact of changes in climate including flooding and temperature increases should be factored into the Draft LACAP.

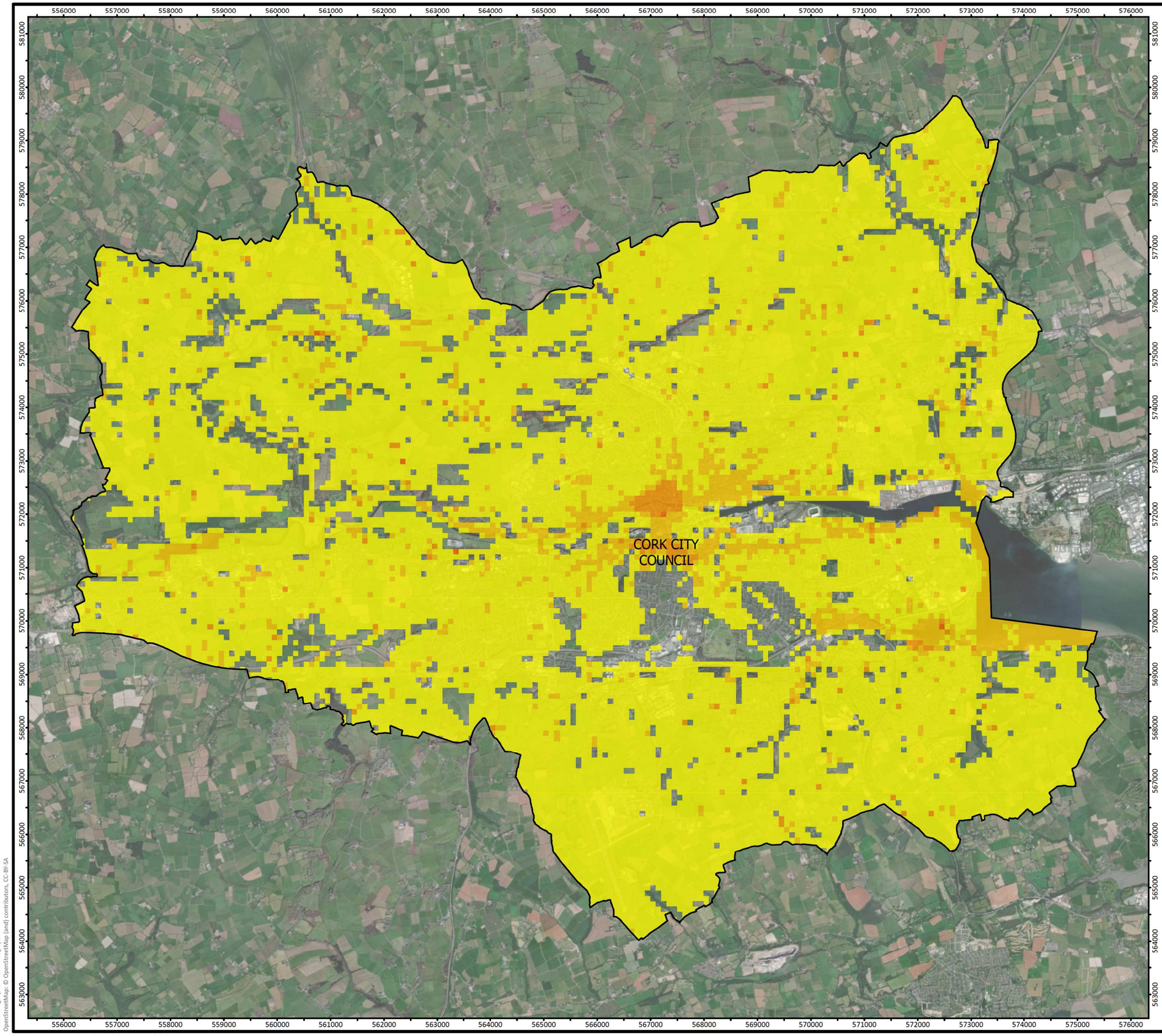
4.13 Constraints and Opportunities

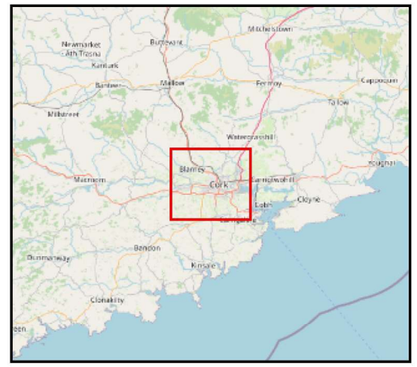
The environmental baseline data was overlaid in raster form and ranked accordingly to produce an overall constraints and opportunities map for the Council's administrative boundary (Figure 4-19). The map was prepared using Geographical Information System (GIS) software that allowed for a weighting system to be applied with differentiation in certain layers as follows:

Vector Layer	Weighting	Rationale
SAC	1	Protected
SPA	1	Protected
NHA	1	Protected
pNHA	0.5	Not fully protected
Archaeological Heritage	1	Protected
WFD High	0.5	High quality most sensitive to perturbation
Wells and Springs	1	Protected
Groundwater High	1	High vulnerability most sensitive to perturbation
Salmonid Water	1	Protected

[64] Office of Public Works (2021) Catchment-based Flood Risk Assessment and Management (CFRAM) Programme gov.ie - CFRAM Programme (www.gov.ie)

Where the mapping shows a concentration of environmental sensitivities there is an increased likelihood that development will conflict with these sensitivities and cause environmental deterioration. However, the occurrence of environmental sensitivities does not preclude development; rather it flags at a strategic level that the mitigation measures - which have been integrated into the Plan - will need to be complied with in order to ensure that the implementation of the plan contributes towards environmental protection.





Legend

Local Authority Boundaries

Constraints & Opportunities

- 0-1
- 1-2
- 2-3
- 3-4

Constraints and Opportunities

CORK CITY COUNCIL
Local Authority Climate Action Plans

FIGURE NO:	4.19
CLIENT:	CORK CITY COUNCIL
DATE:	08/09/2023
SCALE:	1:70,000 @ A3

N W E S

0 0.5 0.9 2 km

FEHILY TIMONEY

Cork | Dublin | Carlow

www.fehilytimoney.ie

Path: R:\Map Production\2023\P23-076\Workspaces\SEA\SEA_ER_Fig4-19 Constraints and Opportunities.aprx

4.14 Evolution of the Baseline Environment without the implementation of the Plan

The SEA Directive requires that consideration is given to the likely evolution of the baseline environment in the event the Draft LACAP is not progressed and implemented. In the event the Draft LACAP was not implemented; the baseline environment would primarily evolve in line with the development management standards and environmental protection criteria defined in Cork City Development Plan (CDP) 2022-2028, which is the primary development control framework relevant to the study area. The baseline environment would also be strongly influenced by CCC's Biodiversity Action Plan 2022 -2028 and Local Area Plans (LAPs) for the City.

Whilst some level of climate related policy has been defined in the CDP, not progressing the specific set of climate mitigation and adaptation related actions defined in the Draft LACAP would present several significant lost opportunities. A variety of likely positive environmental effects associated with Draft LACAP implementation would not come to fruition. A number of potential adverse effects associated with the existing baseline scenario are more likely to occur.

It is less likely that the local authority as an organisation would adequately reduce its organisational GHG emissions in line with national GHG emission reduction targets. The variety of actions for reducing operational GHG emissions and promoting energy efficiency would not be implemented. There will be less, direct policy support for the local authority transitioning its vehicle fleet to being electric or being powered by renewable fuels, which will decrease the likelihood of this being done successfully.

None of the specific climate related adaptation or flood resilience actions defined in the Draft LACAP would be implemented. Climate change related risks relating to severe weather events (including storms and heatwaves) are less likely to be fully understood and controlled at local level as a consequence. For example, the risk of unforeseen and unmanaged climate change influenced flooding would be higher without the adoption of the defined adaptation actions. Such climate change related events have the potential to have significant adverse environmental effects on a variety of environmental receptors including local communities and ecological receptors.

The variety of nature-based solutions proposed in the Draft LACAP would not be implemented. The GHG emission sequestration potential associated with actions promoting the enhancement of ecological sites and greenspace would not be realised.

The biodiversity related protection measures defined in the Draft LACAP would not be implemented, making it less likely that the risk to biodiversity and protected sites, habitats and species due to climate change factors will be adequately managed and controlled at local level.

The variety of community engagement measures defined in the plan will not be implemented. The result of this would be that GHG emission reduction opportunities relating to the local residential and commercial sectors associated with plan actions are less likely to be fully realised. The local residential and commercial sectors would be less supported in reducing their GHG emissions generally.

The active travel/sustainable transport related actions in the Draft LACAP would not be implemented. The expansion of the EV network in the City will have less express policy support. Promoting a modal shift from private car use to the use of sustainable modes of transport will have less express, community level policy support. The potential for achieving this modal shift will be reduced. There will also be less potential to prevent and reduce local air quality impacts associated with the use of internal combustion engine vehicles in the City. The likelihood of exceedances of ambient air quality standards in the City due to vehicle emissions in congested areas would be greater as a result.

Overall, in the event the Draft LACAP was not implemented, the net result would be that the likelihood of the local authority and local community realising GHG emission reductions commensurate to national GHG emission reductions targets would be reduced. At the same, the risk of negative environmental effects occurring as a result of climate change related risks would be greater.

5. STRATEGIC ENVIRONMENTAL OBJECTIVES

The SEA Directive states that an SEA should also look at *'the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation.'* The identification of environmental protection objectives relevant to a plan provide the basis for evaluating the significance of impacts during the SEA process. All environmental protection objectives relevant to the Draft LACAP have been identified. Further information on other P/P's that define environmental protection objectives relevant to the Draft LACAP is provided in Appendix 1 to this document.

Strategic Environmental Objectives (SEOs) are methodological measures which facilitate the development of targets against which the environmental effects of the Draft LACAP can be tested. SEOs are based on wider environmental protection objectives on local, regional, national, European and international level that are relevant to CCC's Draft LACAP. They are high-level in nature and set strategic goals for improvement.

In this section, SEOs have been defined for range of Environmental Components and can be used as standards against which the provisions of the Draft LACAP can be evaluated in order to help identify areas in which potential significant adverse impacts may occur. The use of these objectives ensures that the SEA focuses only on those environmental issues that are most relevant and significant to the Draft LACAP and the Study Area.

The development of SEOs has been appropriately informed by the SEA Scoping stage of the SEA process, including consultation with statutory Environmental Authorities, interested stakeholders and the general public.

All SEOs applicable to the Draft LACAP are presented in Table 5-1.

Table 5-1: Strategic Environmental Objectives

Environmental Component	SEO Code	Strategic Environmental Objective
Overall	O1	Ensure, where appropriate, that lower-level plans and projects contribute to overall environmental monitoring processes within the City.
Population & Human Health	PHH1	Avoid or, minimise impacts to population and human health.
	PHH2	Ensure the Decarbonising Zone avoids and minimises impacts to the existing economic activities within the area and does not compromise/conflict with existing land use objectives.
Biodiversity, Flora & Fauna	B1	Ensure Climate Action does not conflict with biodiversity protection, restoration and rehabilitation.
	B2	Ensure compliance with Habitats and Birds Directives with regard to protection of European Sites and Annexed habitats and species.[65]
	B3	Support Article 10 of the Habitats Directive with regard to the management of features of the landscape which - by virtue of their linear and continuous structure or their function as stepping stones (designated or not) - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species.
	B4	To avoid or minimise significant impacts on semi-natural habitats, species, environmental features or other sustaining resources in designated national sites and to comply with the Wildlife Acts 1976-2012 with regard to listed species.
	B5	Go beyond biodiversity protection to deliver biodiversity enhancement, wherever possible, in response to the biodiversity emergency.
Landscape, Seascape & Visual Amenity	L1	Avoid or minimise impacts on statutory landscape designations defined in the CDP.
	L2	Avoid or minimise adverse visual effects on residential receptors or other sensitive visual receptors.
Cultural Heritage - Archaeology & Architectural	CH1	Avoid impacts upon archaeological heritage (including entries to the Record of Monuments and Places (RMP)) and architectural heritage (including entries to the Record of Protected Structures (RPS) and National Inventory of Architectural Heritage (NIAHs)).
Soils	S1	Avoid or minimise effects on mineral resources or soils.
Land Use	LU1	Avoid or minimise effects on existing land use.
Air Quality and Noise	AQN1	Increase the number of people travelling to work or school via public transport or by non-mechanical means.
	AQN2	Avoid or minimise effects on local air quality.
	AQN3	Avoid or minimise adverse noise impacts.
Water	W1	Maintain and/or improve, the quality and status of surface waters.
	W2	Maintain and/or improve, the chemical and quantitative status of groundwaters.
	W3	Prevent impact upon the WFD status of surface waters and groundwater in line with the requirements of the WFD.
	W4	Comply as appropriate with the provisions of the Flood Risk Management Guidelines.
	W5	Prevent impact upon drinking water quality.

[65] 'Annexed habitats and species' refer to those listed under Annex I, II & IV of the EU Habitats Directive and Annex I of the EU Birds Directive.

Environmental Component	SEO Code	Strategic Environmental Objective
Material Assets	MAI1	Avoid or minimise effects on built/amenity assets and infrastructure.
	MAI2	Avoid or minimise effects on effects upon existing and (where known) planned infrastructure.
	MAI3	Promote sustainable transportation.
	MAI4	Promote sustainable waste management.
	MAI5	Promote sustainable water use and drainage management.
Tourism & Recreation	TR1	Avoid or minimise effects upon tourism and recreation amenities.
Climate Change	CF1	Delivery of the necessary action to support the national target of 80% electricity from renewable sources by 2030.
	CF2	Actively support the delivery of all national climate policy as appropriate to the city with the prioritisation and acceleration of evidence-based measures.
	CF3	CF3: Assist in the delivery of the climate neutrality objective at local and community levels.
	CF4	Deliver a Decarbonising Zone (DZ) within the local authority area to act as a test bed for a range of climate mitigation and adaptation measures in a specifically defined area through the identification of projects and outcomes that will assist in the delivery of the National Climate Objective.
Inter-relationships	IR1	Maintain and improve the health of people, ecosystems and natural processes Actively seek to integrate opportunities for environmental enhancement during adaptation to climate change

6. DESCRIPTION AND EVALUATION OF PLAN ALTERNATIVES

6.1 Introduction

Article 5(1) of the SEA Directive states that: *'Where an environmental assessment is required under Article 3(1), an environmental report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and* reasonable alternatives *taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated.'*

The SEA Directive requires that reasonable alternative means of achieving the strategic goals of the Draft LACAP (taking into account the objectives and the geographical scope of a plan or programme) are identified, described and evaluated for their likely significant effects on the environment. Such reasonable alternative must be realistic and capable of implementation.

This section of the SEA Environmental Report examines reasonable alternatives to CCC's Draft LACAP and systematically evaluates the likely significant effects of these alternatives.

Reasonable alternatives to the Draft LACAP were initially explored and examined during the SEA Scoping stage of the SEA process, having regard to the scope, function and strategic aims and main objectives of the Draft LACAP, as defined in the Local Authority Climate Action Plan. This process facilitated the accurate identification of reasonable alternatives to the Draft LACAP and also suitably informed the plan-making process, ensuring optimal environmental outcomes.

The reason for considering identified reasonable alternatives within the scope of the environmental assessment must be clearly described and documented. A description of how the assessment of alternatives was carried out must be provided.

Reasonable alternatives will be assessed against the Strategic Environmental Objectives (SEOs) established for the aspects of the baseline environment which are likely to be significantly affected by the Draft LACAP. The purpose of this is to determine if the reasonable alternative result in positive, negative, neutral or uncertain environmental outcomes. This assessment process can result in mixed-effects outcomes.

The description and evaluation of reasonable alternatives in this report was undertaken in accordance with guidelines defined in the following two guidance document primarily:

1. Implementation of SEA Directive (2001/42/EC): Assessment of the Effects of Certain Plans and Programmes on the Environment, DEHLG 2004.
2. Developing and Assessing Alternatives in Strategic Environmental Assessment, EPA 2015.

6.2 Goal of the Reasonable Alternative Evaluation Process in SEA

The underpinning goal of the reasonable alternative evaluation process is to ensure that the selection of preferred alternatives by the Local Authority is informed by environmental considerations including:

- The LA's role in influencing sectors and communities with respect to climate action.
- The LA's role in co-ordinating and facilitating climate action – particularly with reference to the DZ.
- The LA's role in creating the local vision for climate action and building capacity to achieve this through advocacy.

6.3 Approach to Developing Reasonable Alternatives

A range of alternatives to the Draft LACAP were considered during the plan-making process. The approach for identifying reasonable alternative to the Draft LACAP is defined below:

1. Iterative communication was held between the plan-making and environmental assessment teams to identify the various alternative approaches and options being considered to achieve the vision of the plan - the reduction of GHG emissions at Local Authority organisational level and within the Community in support of Climate Action policy. This communication commenced early on during the plan-making process.
2. Reasonable alternatives considered were identified. For an alternative to be considered reasonable, it must be practical/functional, realistic and implementable. An evaluation of whether each alternative was practical/functional, reasonable and implementable took place. This evaluation considered the following factors:
    2.1. The vision of high-level objectives of the Draft LACAP.
    2.2. The geographic scope of the Draft LACAP.
    2.3. The actual powers and functions of the Local Authority.
    2.4. The climate action merits of the alternative.
    2.5. The genuine ability of the alternative to achieve the plan vision and high-level objectives.
    2.6. The technical feasibility of the alternative.
    2.7. The availability of resources, including financial resources to deliver the plan within the required timeframe.
    2.8. The policy hierarchy and the parameters placed around the Draft LACAP by higher-level policy.
    2.9. The legislative context and the parameters placed around the Draft LACAP by climate action and environmental related legislation.

The toolkit contained in the EPA's guidelines entitled '*Developing and Assessing Alternatives in Strategic Environmental Assessment Good Practice Guidance*' (2015) was utilised when identifying reasonable alternatives. The 'Why? What? Where? When?' Model defined in the guidelines were used when framing reasonable alternatives, as shown in Figure 6-11.

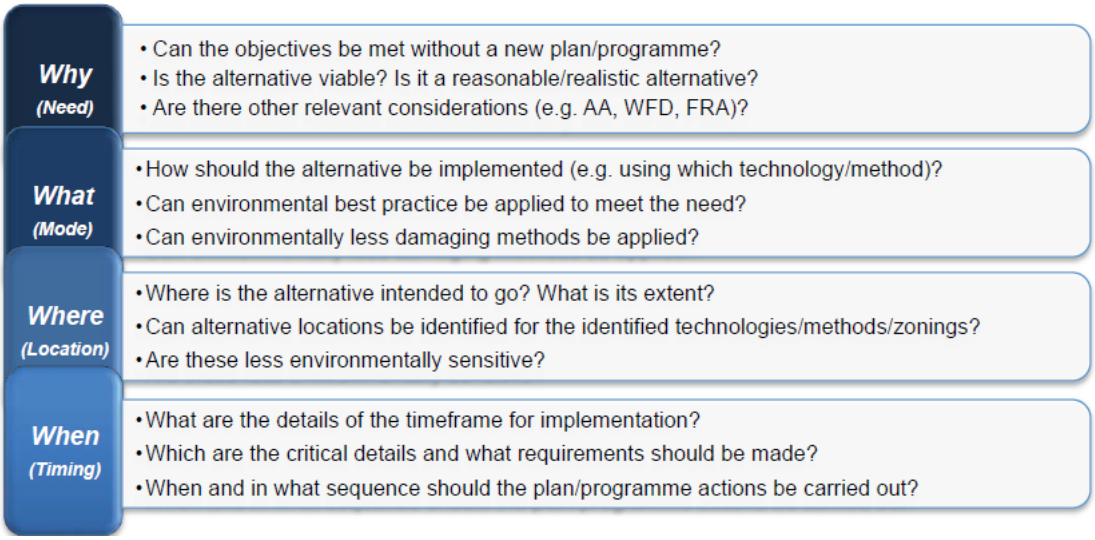


Figure 6-1: 'Why? What? Where? When?' Model for framing alternatives - Adapted from Figure 4.3 Developing and Assessing Alternatives in the Strategic Environmental Assessment Process (EPA, 2015).

6.4 Identification and Description of Reasonable Alternatives

Reasonable alternatives to the Draft LACAP have been identified. A description of these reasonable alternatives and the reasons for selecting these reasonable alternatives are presented in Table 6-1.

A 'Do Nothing' or 'Do Minimum' alternative is not a reasonable alternative in this instance as the preparation of an effective LACAP is a statutory requirement under Section 16 of the Climate Act.

Table 6-1: Reasonable Alternatives to the Draft LACAP

Reasonable Alternative	Description of Reasonable Alternative	Reasoning for selecting this Reasonable Alternative (having regard to the 'Why? What? Where? When' Model defined in Figure 6-11).
Alternative 1 - The Pareto Approach: Prioritise reducing GHG emissions from largest GHG emitting sectors to mitigate against climate change impacts.	This alternative involves developing a LACAP that primarily focusses on climate mitigation and reducing GHG emissions associated with the largest GHG emitting sectors in the City that a local authority can reasonably influence having regard to the functions of a local authority - the Residential and Transport sectors.	This is a viable alternative that could achieve a significant reduction in GHG emissions by prioritising and supporting climate mitigation related action for the Residential and Transport sectors. This alternative would be relevant to the city of Cork City. The alternative would cover the period from 2024 to 2029 (the duration of the prospective LACAP).
Alternative 2 - The Holistic Approach: Adopt a multi-pronged approach and focus on a range of priority areas to mitigate against and adapt to climate change impacts.	This alternative involves developing a LACAP that has a balanced focus on both climate mitigation and adaptation across several theme areas and all socio-economic sectors.	This is a viable alternative that would have enhanced potential to reduce GHG emissions across multiple sectors, potential to offset GHG emissions, and greater potential to protect the local community and the environment from climate change related risks. Climate mitigation and adaptation actions across a wide breath of theme areas would be supported by the LACAP. This alternative would be relevant to the city of Cork City. The alternative would cover the period from 2024 to 2029 (the duration of the prospective LACAP).
Alternative 3 - The Holistic and Participatory Approach (Current Draft LACAP): Adopt a multi-pronged approach - that has a strong community engagement emphasis - and focus on a range of priority areas to mitigate against and adapt to climate change impacts.	This alternative involves developing a LACAP that has a balanced focus on both climate mitigation and adaptation across several theme areas and all socio-economic sectors, and which has a strong community engagement emphasis, which underpins, supports and drives the climate action contained in the plan.	This is a viable alternative that would have enhanced potential to reduce GHG emissions across multiple sectors, potential to offset GHG emissions, and greater potential to protect the local community and the environment from climate change related risks. Climate mitigation and adaptation actions across a wide breath of theme areas would be supported by the LACAP. The range of climate mitigation and adaptation actions defined in the LACAP is likely to have better community level and organisational support given its strong community engagement emphasis. This alternative would be relevant to the city of Cork City. The alternative would cover the period from 2024 to 2029 (the duration of the prospective LACAP).

6.5 Evaluating the Environmental Effects of Reasonable Alternatives

An evaluation of the potential effects of the reasonable alternatives on the baseline environment has been carried out in accordance with the SEA Directive and best practice guidelines. An evaluation matrix has been developed to facilitate the evaluation of the environmental effects of reasonable alternatives on SEOs relating to each Environmental Component. This evaluation matrix is presented in Table 6-2.

Potential effects of the reasonable alternatives have been categorised as follows in the matrix:

- Potential Positive Environmental Impact (indicated in the matrix by a '+').[66]
- Potential Negative Environmental Impact (indicated in the matrix by a '-').[67]
- Potential Positive and Negative Environmental Impacts (indicated in the matrix by a '+/-').
- Uncertain Environmental Impact ((indicated in the matrix by a '?').
- Neutral, No or Insignificant Environmental Impact (indicated in the matrix by a '0').

[66] Potential Positive Environmental Impacts are defined as having the potential to support the achievement of an SEO.
[67] Potential Negative Environmental Impacts are defined as having the potential to hinder the achievement of an SEO.

Table 6-2: Evaluation of the Environmental Effects of Reasonable Alternatives

Environmental Component	SEO Code	Alternative 1 - The Pareto Approach (A1)	Alternative 2 - The Holistic Approach (A2)	Alternative 3 - The Holistic and Participatory Approach (Current Draft LACAP) (A3)	Commentary
Population & Human Health	PHH1	+/-	+/-	+/-	All alternatives considered will support the achievement of this SEO to some degree by promoting sustainable transportation and a modal shift that will have the benefit of reducing vehicle emissions. A3 will deliver these benefits more effectively however given the community engagement emphasis associated with this alternative. All alternatives will likely support active travel related development that may have some degree of adverse effect on population and/or human health through the generation of construction phase dust, noise or congestion in the absence of appropriate mitigation.
	PHH2	0	+	+	A2 and A3 are more holistic in nature and are likely to define specific nuanced and carefully balanced action that aligns with economic development objectives defined in the CDP and supports the achievement of this SEO.
Biodiversity, Flora & Fauna	B1	0	+	+	A2 and A3 will define specific action supporting the enhancement of biodiversity and the protection of biodiversity from climate change risks, including nature-based solutions. A1 will strongly emphasise reducing GHG emissions associated with the Residential and Transport sectors. It is less likely this alternative would define a wide range of climate adaptation measures that would fully protect biodiversity from climate change risks.
	B2	0	+	+	
	B3	0	+	+	
	B4	0	+	+	
	B5	0	+	+	
Landscape, Seascape & Visual Amenity	L1	-	+/-	+/-	All alternatives have the potential to support development that may have a negative impact on landscape character or visual amenity in absence of any mitigation. A2 and A3 are more balanced in nature and are likely to support nature-based solutions, greenspace development and sustainable urban drainage systems which may contribute positively to landscape character or visual amenity.
	L2	-	+/-	+/-	
Cultural Heritage - Archaeology & Architectural	CH1	0	+	+	A1 is less likely to define wide ranging climate adaptation related action that would protect cultural heritage, archaeology and architectural features from climate change risks. A2 and A3 are more balanced in nature and will likely define heritage climate adaptation action which will protect heritage resources from climate change risks.

Environmental Component	SEO Code	Alternative 1 - The Pareto Approach (A1)	Alternative 2 - The Holistic Approach (A2)	Alternative 3 - The Holistic and Participatory Approach (Current Draft LACAP) (A3)	Commentary
Soils	S1	-	-	-	Each of the alternatives are likely to support some degree of development that may be impact the receiving soils environment in the absence of mitigation.
Land Use	LU1	-	+/-	+/-	All alternatives have the potential to support development that may have a negative impact on land use characteristics in the absence of mitigation. A2 and A3 are more balanced in nature and are likely to support wide ranging positive actions that could lead to improving land use value and characteristics, including actions underpinned by nature-based solutions.
Air Quality and Noise	AQN1	+	+	+	Each alternative will deliver to a certain degree in relation to this by promoting sustainable transportation and a modal shift. A3 will deliver most effectively in this regard given the strong community engagement component associated with this alternative.
	AQN2	+/-	+/-	+/-	A1, A2 and A3 are all likely to support the development that may give rise to local air quality impacts - as a result of the generation of airborne dust during construction activities - in absence of any mitigation. At the same, each of these alternatives will spur modal shift that may result in positive local air quality impacts by reducing the level of vehicle related emissions.
	AQN3	-	-	-	A1, A2 and A3 are all likely to support the development that may give rise to noise impacts during the construction phase of the development in absence of any mitigation.
Water	W1	-	+/-	+/-	Each alternative is likely to lead to development that could potentially have an adverse impact upon surface water, groundwater or bathing water quality in absence of any mitigation. A2 and A3 are more likely to promote the development of nature-based solutions and sustainable urban drainage systems that could result in positive effects on water quality. These options will also support the implementation of climate adaptation measures that would reduce the risk to water quality associated with climate change risks. A2 and A3 are more are more likely to define climate adaptation action, and specifically flood resilience related action, which would better support the achievement of W4 and conformance with Flood Risk Management Guidelines.
	W2	-	+/-	+/-	
	W3	-	+/-	+/-	
	W4	0	+	+	
	W5	-	+/-	+/-	

Environmental Component	SEO Code	Alternative 1 - The Pareto Approach (A1)	Alternative 2 - The Holistic Approach (A2)	Alternative 3 - The Holistic and Participatory Approach (Current Draft LACAP) (A3)	Commentary
Material Assets	MAI1	-	-	-	A1, A2 and A3 are all likely to support development that may have a potential negative impact on infrastructure, including existing road infrastructure, in the absence of appropriate mitigation measures.
	MAI2	-	-	-	
	MAI3	+	+	+	All alternatives are likely to contain a suite of climate actions that are supportive of sustainable transportation.
	MAI4	0	+	+	A1 will place a strong emphasis on reducing GHG emissions associated with the Residential and Transport sectors and is likely to place less emphasis on reducing lifecycle GHG emissions associated with promoting better waste/resource management and circularity in the economy. A2 and 3 are likely to contain a wide range of climate action, including circular economy related actions that will better support efficient waste management and a reduction in resource related lifecycle GHG emissions.
	MAI5	0	+	+	A1 will place a strong emphasis on reducing GHG emissions associated with the Residential and Transport sectors and is likely to place emphasis on reducing lifecycle GHG emissions associated with promoting water use efficiency. A2 and 3 are likely to contain a wide range of climate action, including actions that will better support efficient water use and management that would have the benefit of reducing lifecycle GHG emission associated with water use to some degree.
Tourism & Recreation	TR1	-	+/-	+/-	Each alternative is likely to lead to some degree of development involving construction activity that may impact tourism and recreation amenity in the absence of appropriate mitigation. Such construction may need to take place at locations that are sensitive based on their amenity and recreational value, including high amenity parkland and coastal locations. A2 and A3 are both likely to support climate action that positive impacts on tourism and recreation amenity, including climate action that focusses on nature-based solutions and biodiversity/protected site protection and enhancement.
Climate Change	CF1	+	+	+	A1, A2 and A3 all support the achievement of climate change related SEOs to some extent.
	CF2	+	+	+	
	CF3	+	+	+	

Environmental Component	SEO Code	Alternative 1 - The Pareto Approach (A1)	Alternative 2 - The Holistic Approach (A2)	Alternative 3 - The Holistic and Participatory Approach (Current Draft LACAP) (A3)	Commentary
	CF4	+	+	+	A3 has the best potential to deliver effective climate action given its holistic, wide encompassing nature; and given its strong community engagement emphasis, which supports better participation in climate action at community level.
Inter-relationships	IR1	0	+	+	A3 is likely to support maintaining and enhancing human health and eco-system processes the most given its holistic and well-balanced nature and community engagement emphasis.

6.6 Reasons for Choosing the Preferred Plan

Alternative 1 - The Pareto Approach - will lead to some positive environmental effects and will result in the reduction of GHG emissions in the sectors that the local authority can control or exert substantial influence on that contribute most in terms of GHG emission in the City - the Residential and Transport sectors. It is less likely that this alternative will deliver the wide-ranging climate mitigation and offsetting related action required to fully realise GHG emission reduction potential in the City. It is also less likely this alternative would define a wide range of climate adaptation measures that would fully protect biodiversity, heritage resources, environmental receptors and people from climate change risks. This alternative approach may generate several negative environmental effects, which would not be counterbalanced by the positive environmental effects associated with Alternatives 2 and 3.

Alternative 2 - The Holistic Approach - and Alternative 3 - The Holistic and Participatory Approach - will both broadly deliver suitably wide ranging and effective climate action. These alternatives have the potential to generate multiple positive environmental effects, including a reduction in GHG emissions at organisational, community and sectoral levels, in addition to a variety of other environmental benefits. These alternatives will place a balanced emphasis on both climate mitigation and adaptation action, ensuring climate change related environmental risks are adequately understood and managed at community level.

Alternative 3 has the best potential to deliver effective climate action given its holistic, wide encompassing nature; and given its strong community engagement emphasis, which supports better participation in climate action at community level. Alternative 3 has better potential there to fully realise potential environmental effects than Alternative 2.

Reasonable Alternative 3 - The Holistic and Participatory Approach - therefore constitutes the preferred alternative or preferred plan.

6.7 Data Gaps and Technical Limitations relating to the Identification and Evaluating Reasonable Alternatives

There were no data gaps or technical limitations that inhibited the ability of the project to identify and evaluated reasonable alternative being considered at high level during the plan making process.

7. EVALUATION OF THE ENVIRONMENTAL EFFECTS OF PLAN IMPLEMENTATION

7.1 Introduction

An evaluation of the potential effects of the Preferred LACAP on the baseline environment as characterised and described in Section 4 of this report has been carried out and is documented in this section of the report. This evaluation has been carried out against the Strategic Environmental Objectives (SEOs) established for the aspects of the baseline environment which are likely to be significantly affected by the Draft LACAP. These SEOs are documented in Section 5 of this report.

7.2 Evaluation of the Environmental Effects of Plan Implementation

A detailed evaluation of the potential effects of the Preferred LACAP on the baseline environment has been carried out in accordance with the SEA Directive and best practice guidelines. An evaluation matrix has been developed to facilitate the evaluation of the Preferred LACAP on SEOs relevant to each Environmental Component. An explanation of the approach and methodology for this detailed evaluation and completed evaluation matrices for each Draft LACAP Theme Area are contained in Appendix 3 of this report.

An overview of the key environmental effects the Draft LACAP may have on Environmental Components has been presented in Table 7-1.

The following should be noted in relation to the evaluation undertaken:

- The evaluation is strategic and high-level in nature given the strategic nature of the Draft LACAP.
- Environmental effects of the Draft LACAP have been described in accordance with descriptive terminology defined in the Environmental Protection Agency's guidance document entitled 'Guidelines on the information to be contained in Environmental Impact Assessment Reports' (2022).
- The evaluation considers all potential direct, indirect/secondary, cumulative[68], synergistic[69], short, medium and long-term, permanent and temporary, positive and negative environmental effects.
- The evaluation considers inter-relationships and interactions between one Environmental Component and another which can result in an environmental impact.
- The evaluation considers all potential environmental effects arising from unforeseen abnormal events.
- The evaluation considers potential transboundary effects.
- The potential environmental effects described are the potential effects that could occur with the adoption of any environmental mitigation measures.

[68] The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects.
[69] The addition of effects to create a total effect greater than the sum of the individual effects so that the nature of the final impact is different to the nature of the individual impact.

Table 7-1: Overview of the Key Environmental Effects of Plan Implementation

Key Environmental Effect	Main Relevant Environmental Component/s
The variety of climate actions defined in the plan, including organisational and community based actions are likely to generate multiple, slight positive effects on climate - having regard to the share of GHG emission reductions that can be supported via each individual action relative to national GHG emission reduction targets and requirements.	CC, AQN.
The variety of climate actions defined in the plan has the potential to generate co-benefits for local air quality, human health, biodiversity and land use.	AQN, PHH, BFF, LU
The plan is broadly supportive of different forms of community and local area based renewable energy development, which will have a positive effect on the climate environment.	CC, AQN.
Bio-economy related renewable energy development which could be supported by the plan may have a positive effect on material assets through the promotion of material circularity and may positively affect land use, the climate environment and water quality - through the diversification of agricultural land use and the reduction of intensive agricultural activity.	MA, LU, CC, W
In the absence of appropriate mitigation, community and local area renewable energy development that might be supported by plan actions, including any associated ancillary and linear infrastructure, has the potential to have a variety of unintended negative environmental effects, including effects on local human receptors, biodiversity, landscape character and visual amenity, the receiving noise environment or the historic fabric of the built environment.	PHH, BFF, L, AQN.
The plan supports the increased use of lighting potentially across a wide geographic area. In absence of appropriate mitigation, the wide use of lighting may lead to adverse effects on sensitive nocturnal species.	BFF.
Several plan actions are supportive of the upgrading/retrofitting of buildings to improve energy performance. In the absence of appropriate mitigation, such actions may negatively affect the status of protected structures or the historic fabric of the built environment.	CH.
The plan supports the carrying out of a range of flood alleviation and resilience actions, including development and maintenance related actions. These range of actions will generate positive environmental effects on water quality, hydrology and biodiversity. The delivery of this action has the potential to reduce flood risk and prevent flood events. Reducing flood risk can generate significant, positive effects for a variety of environmental receptors that could be negatively impacted by flood events; including human receptors, ecological receptors and cultural heritage assets.	W, BFF, PHH, CH.

Key Environmental Effect	Main Relevant Environmental Component/s
The carrying out of the range flood alleviation and resilience action contained in the plan has the potential to create unintended and potentially significant negative environmental effects in the absence of appropriate mitigation, including effects on water quality and the hydrology of water bodies; biodiversity, including flora and fauna reliant on aquatic eco-systems and the receiving air, noise and human environments (due to construction related impacts).	W, BFF, AQN, PHH.
The plan contains a set of actions designed to promote better resource management and the circular economy at organisational, community and local area level. This action, if implemented effectively, is likely to have some degree of environmental effect, as it will support proper waste management, reduce the risk of waste related environmental pollution or nuisance, and promote material circularity and resource efficiency, and consequently a reduction inf material production related lifecycle GHG emissions.	MA, W, S, PHH, CC.
The inappropriate or improper implementation of waste management related action could have unintended, negative environmental and nuisance related effects, including effects on the receiving human, air, noise, water, soils and traffic environment.	PHH, AQN, N, S, MA.
The plan supports the development of community and local area level nature based solutions - in response to climate related risk - which are supportive of biodiversity protection and enhancement. This action has the potential to have wide ranging slight to significant positive effects on biodiversity, flora and fauna.	BFF.
The plan supports green infrastructure development broadly. In absence of appropriate design and mitigation, the development of green infrastructure that is of a significant scale or extent could potentially result in negative environmental effects, including negative construction related effects, negative effects on biodiversity or negative effects on cultural heritage assets.	PHH, W, S, AQN, BFF, CH.
The plan defines a variety of climate adaptation related actions designed to protect human receptors, biodiversity and heritage assets from the impacts of climate change influenced events such as flooding. The implementation of this action has the potential to generated positive effects for these environmental receptors - by reducing the risk of such events impinging on or damaging these receptors.	PHH, BFF, CH.
Plan actions support the development, expansion and management of safe active travel networks. The delivery of an expanded safe active travel network has the potential to promote the use of sustainable and active travel modes in the community, encourage modal shift, reduce traffic related risks and support the reduction of vehicle related emissions - thereby positively impacting population and human health, local air quality and the climate environment.	PHH, AQN, CC, LU, MA.
Plan actions support the development, expansion and management of safe active travel networks. In the absence of appropriate design and mitigation, the development of active travel networks, depending on the particular nature, scale and extent of such development, could potentially have slight to significant negative effects on the receiving human, noise, air, water, soils, biodiversity, cultural heritage or existing traffic and transport environments.	PHH, AQN, W, S, BFF, CHH, MA, LU.

Key Environmental Effect	Main Relevant Environmental Component/s
Plan actions support the expansion of the Electric Vehicle (EV) charging network and active travel parking in the local authority functional area. The successful delivery of this action has the potential to underpin the use of EV vehicles and active travel modes at community and local area level and support the reduction of vehicle related emissions, thereby positively impacting on local air quality, the climate and population and human health.	AQN, CC, PHH.
Plan actions support the expansion of EV charging network and active travel parking across the breadth of the local authority functional area. In the absence of appropriate mitigation, the construction of additional charging point infrastructure could have a range of slight to significant negative environmental effects on the receiving human, noise, air, water and biodiversity and cultural heritage components present in a particular local context.	PHH, AQN, W, BFF.

7.3 Potential Cumulative Effect of the Draft LACAP in combination with other Plans and Projects

The cumulative effects of a plan are an important consideration in SEA given that a plan may envisage the occurrence of many different actions and developments taking place in parallel with each other in a particular location/geographic area over a particular time period. One benefit of SEA is being able to evaluate the in-combination environmental effects of multiple envisaged projects.

The following types of cumulative effects can occur due to the implementation of a plan:

- Intra-plan Cumulative Effects - Individual environmental effects associated with a single plan interacting and combining to create a larger environmental effect.
- Inter-plan Cumulative Effects - The environment effects of a plan and the environmental effects of another plan interacting and combining to create a larger environmental effect.

7.3.1 Intra-plan Cumulative Effects

The evaluation of Draft LACAP intra-plan cumulative effects has been embedded into the detailed evaluation of environmental effects presented in Appendix 3. Potential intra-plan cumulative effects are presented below:

- The LACAP provides for actions which support the delivery of development and infrastructure projects (in the form of flood resilience, active travel, renewables, nature based solutions projects) which could contribute - if incorrectly managed - to cumulative impacts through construction related environmental effects (site run-off, dust, noise pollution etc.).
- Increased access to natural amenity sites could be facilitated by the combination of actions within the LACAP. Therefore, there could be cumulative effects related to this, particularly along waterways. The LACAP supports a variety of actions relating to flood resilience and alleviation projects, which could introduce catchment level cumulative impacts on water quality, flow and hydrological regime/characteristics.
- The effects of multiple LACAP actions have the potential to combine to robustly support a shift to sustainable and active travel modes of transport. This has the potential to generate a variety of cumulative positive environmental effects, including positive effects on local air quality, human health, biodiversity and climate.
- The variety of positive effects of associated with the implementation of plan actions have the potential to combine and interact and have long-term and wide encompassing positive environmental effects on a variety of environmental components, including population and human health, climate biodiversity, water quality and hydrology, traffic and transport, material assets, cultural heritage and landscape and visual amenity.
- The variety of positive climate related effects associated with plan actions have the potential to combine to create a larger and very significant positive effect on climate - having regard to the share of GHG emission reductions that can be supported via this action relative to national GHG emission reduction targets and requirements.

The potential cumulative environmental effects listed above have the potential to extend beyond the boundary of the local authority functional area.

Plan actions that generate positive or negative environmental effects for one environmental component have the potential to indirectly generate positive or negative environmental effects for interrelated environmental components. For example, actions supporting the delivery of SuDS will improve water quality, which in turn can have a positive effect on aquatic ecology. An assessment of impact inter-relationships and interactions is already embedded in the evaluation of environmental effects that has been carried out in this report. This ensures that there is adequate coverage of all potential environmental effects associated with the implementation of plan actions. A matrix showing the existence of potential inter-relationships between environmental components has been developed and is presented in Table 7-2 to aid in the understanding of these relationships.

Table 7-2: Inter-relationship between Environmental Components

	Population and Human Health	Biodiversity, Flor and Faun	Landscape, Seascape and Visual Amenity	Cultural Heritage - Archaeology & Architectural	Soils	Land Use	Air Quality and Noise	Water	Material Assets	Tourism and Recreation	Climate Change
Population and Human Health											
Biodiversity, Flora and Fauna	■										
Landscape, Seascape and Visual Amenity	■	■									
Cultural Heritage - Archaeology & Architectural		■	■								
Soils	■	■									
Land Use	■	■	■	■	■						
Air Quality and Noise	■	■				■					
Water	■	■			■	■					
Material Assets	■			■		■		■			
Tourism & Recreation	■	■	■	■		■	■		■		
Climate Change	■	■		■	■	■	■	■	■		

Note: Green highlighting indicates a potential interrelationship/interaction

7.3.2 Inter-plan Cumulative Effects

Other plans and programmes that the Draft LACAP has a relationship with are identified in Section 2.5 of this report. It should be noted that all other plans programmes have been or will be subject to environmental, including SEA and AA, for the purpose of preventing and mitigating potential negative environmental effects. Potential inter-plan cumulative effects are presented below:

- Conflicts between climate targets between various organisations - however, all higher order plans such as the CDP, RSES and the National Climate Action plan are aligned with the content of the LACAP. Adaptive language could provide the flexibility to allow localised augmentations to targets to increase or align with stakeholders within the lifetime of the LACAP.
- The LACAP provides for actions which support the delivery of development and infrastructure projects (in the form of flood resilience, coastal protection, active travel, renewables, nature based solutions projects) which could contribute - if incorrectly managed - to cumulative impacts through construction related environmental effects (site run-off, dust, noise pollution etc.) in combination with development supported by other plans, including higher order plans (E.g., the CDP, LAPs, Framework for Alternative Fuel Infrastructure in Transport).
- Increased access to natural amenity sites could be facilitated by the combination of actions within the LACAP. Therefore, there could be cumulative effects related to this, particularly along waterways, in combination with other plans that support increased access to such sites. The LACAP supports a variety of actions relating to flood resilience and alleviation projects, which could introduce catchment level cumulative impacts on water quality, flow and hydrological regime/characteristics in combination with other plans that support such projects (E.g., Flood Risk Management Climate Change Sectoral Adaptation Plan).
- The effects of multiple LACAP actions have the potential to combine to robustly support a shift to sustainable and active travel modes of transport in combination with other plans. This has the potential to generate a variety of cumulative positive environmental effects, including positive effects on local air quality, human health, biodiversity and climate.
- The variety of positive effects of associated with the implementation of plan actions - in parallel with actions defined in other plans and programmes that are likely to generate positive environmental effects - have the potential to combine and interact and have long-term and wide encompassing positive environmental effects on a variety of environmental components, including population and human health, climate, biodiversity, water quality and hydrology, traffic and transport, material assets, cultural heritage and landscape and visual amenity.
- The variety of positive climate related effects associated with plan actions - in parallel with actions defined in other plans, including higher order plans, that are likely to generate positive effects on climate (E.g., the CAP23) - have the potential to combine to create a larger and profound positive effect on climate - having regard to the share of GHG emission reductions that can be supported via this action relative to national GHG emission reduction targets and requirements.

The potential cumulative environmental effects listed above have the potential to extend beyond the boundary of the local authority functional area.

8. MITIGATION MEASURES

Potential negative environmental effects that may occur as a result of the implementation of the Draft LACAP (without considering any mitigation) have been identified in Section 8 of this report. The SEA Directive requires that mitigation measures to prevent, reduce and as fully as possible offset any potential significant negative environmental effects due to the implementation of a plan are defined. This section of the report describes the mitigation measures to ameliorate the potential negative environmental effects that may occur as a result of the implementation of the Draft LACAP.

In this case, the following forms of mitigation have been adopted to ameliorate the negative environments of the Draft LACAP and maximise potential positive effects of the plan:

- Mitigation through consideration of alternatives.
- Mitigation through integration of environmental considerations into the LACAP.
- Mitigation through consideration of development management standards/environmental protection objectives contained in the CDP.

8.1 Mitigation through consideration of alternatives

A number of alternatives were considered at an early stage in the process. The environmental effects of these alternatives were evaluated during the SEA process. The preferred Draft LACAP was chosen over the other alternative options considered for the following reasons:

- **Alternative 1 (considered) - The Pareto Approach -** will lead to some positive environmental effects, however it is less likely that this alternative will deliver the wide ranging and effective climate mitigation and adaptation action likely to result from implementation of the preferred Draft LACAP. This alternative approach may also generate several negative environmental effects, which would not be counterbalanced by the potential positive environmental effects associated with the preferred Draft LACAP.
- **Alternative 2 (considered) - The Holistic Approach -** and the preferred Draft LACAP - The Holistic and Participatory Approach - will both broadly deliver suitably wide ranging and effective climate action. These alternatives both have the potential to generate multiple positive environmental effects. Both alternatives have equal potential to generate some negative environmental effects.
- **Alternative 3 (preferred) - Draft LACAP -** was selected over the other Alternative 2 however as it has the best potential to deliver effective climate mitigation and adaptation action and positive environmental effects, given its strong community engagement emphasis, which supports better participation in climate action at community level.

8.2 Mitigation through integration of environmental considerations into the Plan

The plan making process was carried out in parallel with the SEA and AA processes. Regular communication and interaction took place between the environmental assessment team and the plan making team. Environmental considerations that came to light during the SEA and AA processes, including consultation processes, were regularly communicated to the plan making team during the plan making process. As necessary, environmental mitigation measures to ameliorate the potential negative environmental effects of implementing the Draft LACAP were developed and then integrated into the Draft LACAP. Much of the environmental mitigation was embedded in the plan early on in the process as a result of this. This process was carried out in an iterative manner to ensure optimal plan making and environmental outcomes. Environmental considerations were also integrated into the plan so as to facilitate maximising identified positive environmental effects of the Draft LACAP.

Mitigation measures have been proposed that maximise the co-benefits of climate action for other environmental components such as local air quality, human health, biodiversity, water quality and other interrelated areas (i.e., win-win solutions).

Additional text clarifying environmental protection related obligations and environmental enhancement opportunities has been attached to a variety of defined actions in the plan. This text has been shaped to ensure that environmental considerations are appropriately taken into account during plan implementation. This text has been shaped to ensure plan implementation generates the minimum level of negative environmental effects and the maximum level of positive environmental effects.

Several environmental governance principles were established to ensure plan implementation generates the minimum level of negative environmental effects and the maximum level of positive environmental effects. These environmental governance principles shall underpin and guide plan implementation and shall apply to and be integrated into all actions/activities which result due to the implementation of the plan.

Environmental mitigation measures to be integrated into the Draft LACAP to prevent, reduce and fully offset any potential significant negative environmental effects, and to maximise potential environmental benefits and co-benefits of the Draft LACAP, are presented in Table 8-1 and Table 8-2. For clarity and succinctness, only the Draft LACAP Action and the associated proposed mitigation measures have been presented in Table 8-1. The reader is asked to refer to Appendix 3.2 - Detailed Evaluation of Environmental Effects of Plan Implementation, for an understanding of the potential environmental effects associated with each individual action which are being mitigated (in the case of negative environmental effects) or maximised (in the case of positive environmental effects).

Due to the inter-relationship between various environmental components, environmental mitigation measures defined for one component can also serve to benefit another environmental component.

Table 8-1: Proposed Environmental Mitigation Measures related to the actions

Draft LACAP Action Reference	Draft LACAP Action	Mitigation Measure
2.09	Implement City Centre Placemaking Fund focusing on innovative projects which activate and green sites	Attach the following to this action: whilst promoting - through control or influence as appropriate - adherence to environmental protection requirements during development projects.
2.12	Support small enterprises with investment in energy efficient technologies and equipment through the Energy Efficiency Grant	Attach the following to this action: whilst promoting - through control or influence as appropriate - adherence to environmental protection requirements during development projects.
3.01	Deliver the framework plans for the expansion zones (Blarney, South Ballincollig, Holyhill, Blackpool, Ballyvolane, South Glanmire, Douglas) and regeneration areas (Docklands) identified in the City Development Plan 2022-2028 as exemplary climate positive projects, through integration of approaches recommended in the Cork City GBI Strategy, Trees Strategy, and other good practices for sustainable development.	Attach the following to this action: Ensure projects supported by this action are delivered in a manner that has due regard to: - All relevant environmental sensitivities (e.g., heritage, biodiversity, European site related sensitivities), and; - Opportunities to promote climate action co-benefits (e.g., through the use of nature-based solutions or sustainable drainage systems).
3.03	Complete Energy Performing Contract (EPC) on seven nominated Cork City Council Buildings. The aim is to improve energy efficiency and to reduce CO_2 emissions across each site. Using a large energy consuming building, i.e. a leisure centre, and incorporating smaller-consuming buildings into the contract to make it financially viable to complete works and to help establish best-practice guidance for similar building across the city	Attach the following to this action: having due regard to environmental sensitivities such as biodiversity, European sites, sensitive human receptors, and heritage features.
3.07	Accelerate revitalisation of derelict buildings for housing and commercial use, minimising demolition and achieving energy efficiency upgrades	Attach the following to this action: having due regard for environmental sensitivities such as local human receptors, European sites and biodiversity; and the need to appropriately protect and conserve protected structures, during any retrofitting works.
3.08	Establish a Cork City Retrofitting & Renewables Taskforce for decarbonising the city's building stock to explore, inform and ensure the transition to sustainable, energy efficient residential homes, commercial buildings, heritage buildings, private rented properties, apartments, public buildings. Fund pilot projects in hard to retrofit and heritage buildings.	Attach the following to this action: Make it a mission of this taskforce to achieve the decarbonisation of the city's building stock without generating that does not result in unintended negative effects on humans, heritage or biodiversity.
3.09	Identify and develop opportunities for collaboration with the private sector for large-scale investment in energy projects in the city, including but not limited to district heating, rooftop solar, retrofitting, and standalone low-carbon energy generation projects	Attach the following to this action: Promote - through control or influence as appropriate - the carrying out of development supported by this action in a manner that has due regard to relevant environmental sensitivities, including heritage, water quality, biodiversity, European sites and landscape and visual amenity related sensitivities.

Draft LACAP Action Reference	Draft LACAP Action	Mitigation Measure
3.12	Accelerate retrofitting of the social housing stock to at least a B2 BER or the Cost Optimal Equivalent (as defined by the building regulations Part L- conservation of fuel and energy).	Attach the following to this action: having due regard to protected species, biodiversity, European sites and the need to appropriately conserve protected structures.
3.13	Facilitate construction of a good housing mix of energy efficient emission homes to accommodate population growth, including build-to-rent and shared accommodation, social housing, student accommodation, specialist housing, conversions, over-the-shop and infill development, according to the principles of the City Development Plan for compact growth.	Attach the following to this action: having due regard for environmental sensitivities such as local human receptors, European sites and biodiversity; and the need to appropriately protect and conserve protected structures.
3.15	Complete the rollout of energy efficient LED lanterns for the remaining 49% of public lighting stock	Attach the following to this action: while ensuring the lumen levels and spectral range are maintained or reduced/controlled to avoid effects to biodiversity.
3.16	Implement and complete the Docklands Framework Masterplan, which will have a strong emphasis on sustainability, biodiversity and achievement of near-zero objectives.	Reword the action to as follows: Implement and complete the Docklands Framework Masterplan, which will have a strong emphasis on sustainability, biodiversity, environmental protection and achievement of near-zero objectives.
3.17	Implement the South Docklands Drainage and Flood Protection Strategy	Attach the following to this action: having due regard to opportunities to promote nature based solutions and Sustainable Drainage Systems, and environmental sensitivities, including water quality, biodiversity, European sites, aquatic ecology, visual amenity and recreation and amenity value.
3.18	Publication and implementation of South Docklands Energy Masterplan.	Attach the following to this action: having due regard to environmental sensitivities such as landscape character and visual amenity, biodiversity, European sites, and built heritage.
3.21	Mainstream Green and Blue Infrastructure priorities into the design and delivery of all built environment and energy projects in the city, supported by the rollout and adoption of decision-support tools like the GBI Hub. Demonstrate mainstreaming in priority projects including: Lee to Sea Greenway; Vernon Mount Park Project; Decarbonising Zone; and all new Rewilding, Rewetting and Reafforestation projects in the city.	Attach the following to this action: Having due regard to opportunities to enhance tourism, recreation and heritage value associated with supported projects, and environmental sensitivities such as the receiving water environment, local air quality, biodiversity, European site, and heritage related sensitivities.
3.23	Co-operate with SEAI to increase the number and activity levels of Sustainable Energy Communities (SECs) in Cork City in support of Action BE/23/8 of the national Climate Action Plan.	Attach the following to this action: Facilitate project adherence to planning and environmental protection requirements.

Draft LACAP Action Reference	Draft LACAP Action	Mitigation Measure
3.25	Implement the Morrison's Island Public Realm Scheme.	Attach the following to this action: having due regard to the need to promote nature based solutions and Sustainable Drainage Systems, and environmental sensitivities, including water quality, biodiversity, European sites, riparian corridors and aquatic ecology, visual amenity and recreation and amenity value.
3.26	Facilitate the OPW's Lower Lee Flood Relief Scheme (LLFRS) as appropriate.	Attach the following to this action: having due regard to the need to promote nature based solutions and Sustainable Drainage Systems, and environmental sensitivities at these locations, including water quality, biodiversity, European sites, riparian corridors and aquatic ecology, visual amenity and recreation and amenity value
3.27	Facilitate flood relief works in Glanmire	Attach the following to this action: having due regard to the need to promote nature-based solutions and Sustainable Drainage Systems, and environmental sensitivities, including water quality, biodiversity, European sites, riparian corridors and aquatic ecology, visual amenity and recreation and amenity value.
3.31	Continue to improve energy and performance and build climate resilience in local architectural heritage through management and administration of the Built Heritage Investment Scheme, Historic Structures Fund and any other relevant funds introduced.	Attach the following to this action: Promote adherence to planning and environmental protection requirements during retrofitting projects supported by this action, as appropriate.
4.02	Publish and implement the actions arising from the forthcoming Cork City Car-Share Strategy, and the Cork City Shared Micro-Mobility Strategy	Attach the following to this action: having due regard to universal access requirements, environmental sensitivities such as the receiving water environment, biodiversity, European sites, local air quality and built/cultural heritage, and available grid capacity.
4.03	Replace all City Council diesel and petrol vehicles and machinery with lower emissions alternatives. Monitor advances in the development of EV, biomethane, hydrogen, etc. technology.	Reword the action to the following: Replace all City Council diesel and petrol vehicles and machinery with sustainable lower emissions alternatives. Monitor advances in the development of EV, biomethane, hydrogen, etc. technology - whilst ensuring appropriate end-of-life management practices are in place for Electric Vehicles under the Council's ownership.
4.05	Complete design, plan and implement active travel infrastructure per the CMATS, Cork Cycling Network Plan, Pedestrian Network Plan, Cycle Connects and the National Cycle Network, inclusive of appropriate supportive elements such as wayfinding, benches, water fountains.	Attach the following to this action: whilst promoting the need to have active travel development carried out in a manner that has due regard to environmental sensitivities such as local human receptors, Biodiversity, European sites, water quality and hydrology, existing traffic and transport conditions and amenity value.
4.08	Support the delivery of enhanced public transport services in Cork City as envisaged under the Bus Connects Cork program of works.	Attach the following to this action: Promote climate action co-benefit opportunities and adherence to relevant planning and environmental protection requirements using local authority functions, as appropriate.
4.09	Support the delivery of the measures identified in the Cork Metropolitan Area Transport Strategy including the delivery of Cork Light Rail Transit System.	Attach the following to this action: Promote climate action co-benefit opportunities and adherence to relevant planning and environmental protection requirements using local authority functions, as appropriate.

Draft LACAP Action Reference	Draft LACAP Action	Mitigation Measure
4.11	Accelerate the implementation of safe routes to school/cycle buses and greenways to further enhance localised active-travel infrastructure, including the promotion and support for the Active Travel Green Flags	Attach the following to this action: having due regard to environmental sensitivities such as the receiving water environment, biodiversity, European sites local air quality and heritage considerations.
4.13	Increase frequency of pedestrianisation periods for the city centre, and pilot in suburban areas and urban towns. Analyse and publish results.	Reword the action to the following: Increase frequency of pedestrianisation periods for the city centre, and pilot in suburban areas and urban towns. Design and deliver such schemes in accordance with relevant good practice guidelines. Analyse and publish results.
5.05	Publish and implement the actions prioritised in Cork City's first Trees Strategy, including: a) a detailed inventory of tree stock for analysis of ecosystem services provided; b) city-wide analysis of available planting sites; c) prepare long-term canopy cover plan; d) review development standards to protect existing trees and management standards to maximise quality and longevity of existing stock.	Reword the action to the following: Publish and implement the actions prioritised in Cork City's first Trees Strategy, including: a) a detailed inventory of tree stock for analysis of ecosystem services provided; b) city-wide analysis of available planting sites; c) prepare long-term canopy cover plan; d) review development standards to protect existing trees and management standards to maximise quality and longevity of existing stock. e) Take measures to promote the use of native species over non-natives and having due regard for water quality and soil stability issues whilst undertaking the planning process.
5.10	Incorporate sustainable urban development systems (SuDS), such as water-sensitive urban design (WSUD), in every new development in the city, as per Objective 9.4 of the Cork City Development Plan (2022-2028). Support delivery of this action through establishment of a cross-departmental SuDS working group to advise on implementation.	Attach the following to this action: Promote the adoption of nature-based solutions/ protection of biodiversity and avoidance of habitat fragmentation during SuDS projects.
5.13	Initiate delivery of the proposed Northwest Regional Park.	Attach the following to this action: having due regard to relevant planning and environmental protection requirements, and opportunities to promote climate action co-benefits.
5.21	Identify and purchase suitable land for woodland creation.	Reword the action to the following: Identify and purchase suitable land for sustainable woodland creation. Take measures to promote the use of native species over non-natives and having due regard for water quality and soil stability issues whilst undertaking the planning process.
5.25	Implement the National Waste Management Plan for a Circular Economy, supporting local initiatives to reduce waste from all sectors, including construction and fashion. Promote and expand support for a circular economy by encouraging the reduce-reuse-recycle principle at the community level.	Attach the following to this action: Promote good water management practices and adherence to the Waste Management Act.

Draft LACAP Action Reference	Draft LACAP Action	Mitigation Measure
5.26	Advocate for regulations to allow controlled on-site reuse of segregated construction and demolition waste.	Reword the action to the following: Advocate for regulations to allow controlled on-site reuse of segregated inert and environmentally non-hazardous construction and demolition waste.
5.28	Support Cork Food Policy Council in feasibility study on the development of a Food Sustainability Co-operative/hub	Reword the action to the following: Support Cork Food Policy Council in feasibility study on the development of a Local Food Sustainability Co-operative/hub

Table 8-2: Environmental Mitigation Measures related Environmental Governance Principles suggested for inclusion in the plan - specifically the plan implementation section

Promote climate action projects that support and maximise environmental co-benefits, such as biodiversity protection and enhancement; improved air, water or soil quality; or enhanced recreation, amenity and cultural heritage value, to ensure win-win benefits are gained.
Support or facilitate climate action related projects and initiatives which seek to make improvements in soil structure, management and health by increasing soil organic carbon - which will create the environmental co-benefits of improving flood resilience by enhancing water holding capacity of soils and increasing the level of GHG sequestration associated with land use functions.
Ensure local authority development underpinned or supported by plan actions is planned and implemented in a manner that appropriately considers the potential for environmental co-benefits, potential environmental impacts and environmental protection requirements. No local authority climate action related development project that is likely to have significant negative effects on the receiving environment shall be supported.
Promote - through control or influence as appropriate - the carrying out of flood resilience measures underpinned by plan actions in a manner that supports climate action-biodiversity related co-benefits, and which has due regard for the protection and enhancement of rare, protected or important habitats and species.
Promote the carrying out of climate action related projects supported by the plan in a manner that supports climate action-cultural heritage co-benefits, and which has due regard to cultural, archaeological or architectural features and sensitivities.
Promote the carrying out of climate action related projects underpinned by the plan in a manner that supports climate action water quality co-benefits, and the achievement of Water Framework Directive objectives.
Promote climate action projects that support protected trees, hedgerows and other habitats such as wetlands, floodzones which contribute to green infrastructure.
Support opportunities to improve ecological connectivity of non-designated habitats and sites to improve overall ecosystem resilience and functioning while supporting climate action within the city.
Ensure local authority projects supported by plan actions have taken the necessary precautions to identify and manage invasives species, particularly with regard to Schedule III species. No local authority climate action related development project that is likely to cause the spread of invasives species listed in Schedule III shall be supported.

8.3 Mitigation through consideration of environmental protection objectives contained in the City Development Plan

In addition to the environmental mitigation measures integrated into the Draft LACAP, the development management standards and environmental protection measures defined in the CDP will serve to mitigate the environmental effects of any development proposals supported by the Draft LACAP. These development management standards/environmental protection measures have been defined for the express purpose of ensuring proper planning and sustainable development in the City. The CDP has been subject to its own SEA and AA. The Draft LACAP has been prepared having appropriate regard to the policies and objectives contained in the City Development Plan.

8.4 Conclusion

The reasonable alternative evaluation presented in Section 6 and summarised in Section 8.1 has resulted in the development of a Draft LACAP that achieves the best environmental outcomes in comparison to other reasonable alternative considered.

The adoption of the mitigation measures to be integrated into the Draft LACAP, in combination with the continued adoption of the development planning and control related environmental protection measures defined in the CDP will prevent, reduce and as fully as possible offset any potential negative environmental effects due to the implementation of the Draft LACAP. No further mitigation measures are required for the Draft LACAP.

9. MONITORING MEASURES

The SEA Directive requires that the environmental effects of the implementation of a plan are monitored in order *'to identify at an early stage unforeseen effects, and to be able to undertake appropriate remedial action.'*

A series of indicators and targets have been established for identified SEOs to enable ongoing monitoring and measurement of LACAP implementation performance, the environmental effects of the implementation of the LACAP and the efficacy of environmental mitigation measures. Such monitoring will be carried out regularly to support plan implementation.

SEO indicators are simple and effective quantifiable indicators used to measure the environmental effects of implementing the Draft LACAP and the progress of SEO objectives and targets. SEO targets set focussed, measurable aims and thresholds that the Draft LACAP can support the achievement of.

Cork City Council are responsible for implementation of the SEA monitoring programme. The environmental effects (including positive, negative and cumulative effects) of LACAP implementation will be monitored once every year over the course of the plan's five-year lifetime. This monitoring will be carried out by the Environment and Climate Change section of Cork City Council who will report on progress and performance the relevant SPC annually. A monitoring report will be prepared to document monitoring outcomes. This report shall be made available for public inspection.

It is recommended that LACAP monitoring and review is undertaken in parallel with CDP monitoring and review processes for efficiency and given that similar data sets will be used to measure the progress of each plan.

Where monitoring identifies that the implementation of the LACAP is having a significant negative environmental effect, an in-depth review of the LACAP should take place and the LACAP should be updated in a manner that satisfactorily mitigates these environmental effects (i.e., through the adoption of additional environmental mitigation measures.). Similarly, where monitoring indicates that potential positive environmental effects associated with LACAP implementation are not being adequately realised, the LACAP should be reviewed and updated in a manner that supports the realisation of all potential positive environmental effects, having regard to the overall vision and high-level objectives of the plan.

The SEA Monitoring Programme established for the Draft LACAP is contained in Table 9-1. This monitoring programme has been developed in accordance with EPA guidelines entitled 'Guidance on SEA Statements and Monitoring' (2020). The monitoring programme includes detail on the indicators, targets and data sources used to monitor and measure progress.

A stand-alone monitoring report on the significant environmental effects of the implementation of the Plan will be prepared in advance of the plan review process. The Council is responsible for the ongoing review of indicators and targets, collating existing relevant monitored data, the preparation of monitoring evaluation report(s), the publication of these reports and, if necessary, the carrying out of remedial action.

Table 9-1: SEA Monitoring Programme

Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
Overall	O1	Ensure, where appropriate, that lower-level plans and projects contribute to overall environmental monitoring processes within the City.	Lower-level plan and project accordance with the plan.	Require all lower-level plans and projects have appropriate regard to and appropriately support all action and development proposals defined in the Plan. Ensure planning policy and climate action policy is aligned.	Review of Local Area Plans. Internal monitoring of likely significant environmental effects of development projects.
Population & Human Health	PHH1	Avoid or, minimise impacts to population and human health.	Number of spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan.	No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan.	Consultation with the Health Service Executive (HSE) and the EPA.
	PHH2	Ensure the Decarbonising Zone avoids and minimises impacts to the existing economic activities within the area and does not compromise/conflict with existing land use objectives.	Compliance of action and development supported by the plan with policies and land use objectives protective/supportive of economic development in the city defined in the City Development Plan (CDP) or City Local Area Plans.	No contravention of policies and land use objectives protective/supportive of economic development in the city defined in the CDP or City Local Area Plans. Planning consent for development proposals supported by the plan only to be granted where development will be carried out in accordance with proper planning and sustainable development.	Internal monitoring of compliance with CDP Policy Objectives. Internal monitoring of likely significant environmental effects of development projects.
Biodiversity, Flora & Fauna	B1	Ensure Climate Action does not conflict with biodiversity protection, restoration and rehabilitation.	Compliance of action and development supported by the plan with policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the CDP. Condition of habitats impacted by climate change (Area km^2 /length metres). Number and geographical distribution of Species or Species population trends impacted by climate change.	No contravention of policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the CDP. Ensure no habitats are impacted by the effects of climate change. Ensure no reduction in the number of geographic distribution of species as a result of climate change effects.	Internal monitoring of compliance with CDP Policy Objectives. Internal monitoring of compliance with the City Biodiversity Action Plan. Internal monitoring of likely significant environmental effects of development projects.

Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
			Compliance of action and development supported by the plan with policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the City's Biodiversity Action Plan.	No contravention of policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the City's Biodiversity Action Plan. Planning consent for development proposals supported by the plan only to be granted where development complies with policy supporting biodiversity protection and enhancement.	
	B2	Ensure compliance with Habitats and Birds Directives with regard to protection of European Sites and Annexed habitats and species[70].	Condition of European Sites and annexed species.	No adverse impacts on the condition of European Sites and Annexed habitats and species as a result of plan implementation.	Internal monitoring of likely significant environmental effects of development projects. Consultation with the NPWS. Department of Housing, Local Government and Heritage report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive. Department of Housing, Local Government and Heritage's National Birds Directive Monitoring Report for the Birds Directive under Article 12.

[70] 'Annexed habitats and species' refer to those listed under Annex I, II & IV of the EU Habitats Directive and Annex I of the EU Birds Directive.

Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
	B3	Support Article 10 of the Habitats Directive with regard to the management of features of the landscape which - by virtue of their linear and continuous structure or their function as stepping stones (designated or not) - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species.	Condition of features of the landscape which - by virtue of their linear and continuous structure or their function as stepping stones (designated or not) - are of major importance for wild fauna and flora. Linear meters of riparian corridors enhanced with native planting. Fragmentation or breaks in continuity of habitats and loss of wildlife corridors, stepping stones and connectivity (km^2). Number of developments permitted that have significant greenspace proposals.	No adverse impacts on the condition of features of the landscape which - by virtue of their linear and continuous structure or their function as stepping stones (designated or not) - are of major importance for wild fauna and flora as a result of plan implementation. Increase linear metres of riparian corridor enhanced with native planting. Reduce habitat fragmentation or breaks. Increase number of developments permitted that have significant greenspace proposals.	Internal monitoring of likely significant environmental effects of development projects.
	B4	To avoid or minimise significant impacts on semi-natural habitats, species, environmental features or other sustaining resources in designated national sites and to comply with the Wildlife Acts 1976-2012 with regard to listed species.	Condition of semi-natural habitats, species, environmental features or other sustaining resources in designated national sites. Status of listed species in the Wildlife Acts 1976 - 2012.	No adverse impacts on condition of semi-natural habitats, species, environmental features or other sustaining resources in designated national sites as a result of plan implementation. No adverse impacts on listed species in the Wildlife Acts 1976 - 2012 as a result of plan implementation.	Internal monitoring of likely significant environmental effects of development projects. Mapping of LR important habitats and species as part of the City Biodiversity Plan.
	B5	Go beyond biodiversity protection to deliver biodiversity enhancement, wherever possible, in response to the biodiversity emergency.	Compliance of development supported by the plan with policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the CDP. No. of developments permitted that have significant greenspace proposals. Improved biodiversity areas (Area km^2 /length metres).	No contravention of policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the CDP. Increase number of developments permitted that have significant greenspace proposals. Increase quantum of improved biodiversity areas.	Internal monitoring of compliance with CDP Policy Objectives. Internal monitoring of compliance with the City Biodiversity Action Plan. Internal monitoring of likely significant environmental effects of development projects.

Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
			Compliance of development supported by the plan with policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the City's Biodiversity Action Plan.	No contravention of policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the City's Biodiversity Action Plan. Planning consent for development proposals supported by the plan only to be granted where development complies with policy supportive of biodiversity protection and enhancement.	
Landscape, Seascape & Visual Amenity	L1	Avoid or, minimise impacts to statutory landscape designations defined in the CDP.	Status of Landscape Character Areas, the Seascape, High Amenity Zones, Historic Landscape Character Areas and Views and Prospects. Number of developments permitted that result in avoidable adverse impacts on Landscape Character Areas, the Seascape, High Amenity Zones, Historic Landscape Character Areas and Views and Prospects.	All action and development proposals supported by the plan must comply with policy objectives relating to the protection of Landscape Character Areas, the Seascape, High Amenity Zones, Historic Landscape Character Areas and Views and Prospects defined in the CDP. No development supported by the plan should have an adverse impact on Landscape Character Areas, the Seascape, High Amenity Zones, Historic Landscape Character Areas and Views and Prospects.	Internal monitoring of compliance with CDP Policy Objectives. Internal monitoring of likely significant environmental effects of development projects.
	L2	Avoid or minimise adverse visual effects on residential receptors or other sensitive visual receptors.	Number of developments permitted that result in avoidable adverse visual impacts on residential receptors or other sensitive visual receptors.	No development supported by the plan should have a significant adverse visual impact on residential receptors or other sensitive visual receptors. All development supported by the plan should adhere to relevant Development Management Standards defined in the CDP, in particular standards defined in relation to physical and visual impacts.	Internal monitoring of likely significant environmental effects of development projects.

Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
Cultural Heritage - Archaeology & Architectural	CH1	Avoid impacts upon archaeological heritage (including entries to the Record of Monuments and Places (RMP)) and architectural heritage (including entries to the Record of Protected Structures (RPS) and National Inventory of Architectural Heritage (NIAHs)).	Percentage of features contained in the RMP (and, where relevant, the associated surrounding context) protected from adverse effects due to action and development occurring as a result of this plan. Percentage of features contained in the RPS and NIAH (and, where relevant, the associated surrounding context) protected from adverse effects due to action and development occurring as a result of this plan.	No features contained in the RMP (nor the associated surrounding context) should be significantly adversely affected as a result of the implementation of this plan. No features contained in the RPS and NIAH (nor the associated surrounding context) should be significantly adversely affected as a result of the implementation of this plan.	Internal monitoring of likely significant environmental effects of development projects. Consultation with the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media
Soils	S1	Avoid or minimise effects on mineral resources or soils.	Number of instances of significant adverse impacts on mineral resources or soils occurring, including the pollution, loss or degradation of mineral resources or soils, as a result of action and development supported by the plan.	No instances of significant adverse impacts on mineral resources or soils occurring as a result of action and development supported by the plan.	Internal monitoring of likely significant environmental effects of development projects.
Land Use	LU1	Avoid or minimise effects on existing land use.	Number of instances of significant adverse impacts on existing land use as a result of plan implementation.	No instances of significant adverse impacts on existing land use as a result of plan implementation.	Internal monitoring of likely significant environmental effects of development projects.
Air Quality and Noise	AQN1	Increase the number of people travelling to work or school via public transport or by non-mechanical means.	% change in modal split. Length of new sustainable transport routes developed.	Reduction in private car use. Extension and improvement of the sustainable transport network in the plan area.	Central Statistics Office (CSO) Population data - Commuting in Ireland. Internal monitoring of length of new sustainable transport routes developed.
	AQN2	Avoid or minimise effects on local air quality.	Number of developments permitted that result in avoidable adverse air quality impacts on sensitive receptors. Number of exceedances of ambient air quality standards in the City, as monitored under the EPA's National Ambient Air Quality Monitoring Network.	No development supported by the plan should have a significant adverse air quality impact on sensitive receptors. All development supported by the plan should adhere to relevant Development Management Standards	Internal monitoring of likely significant environmental effects of development projects. Consultation with the EPA. Review of EPA Air Quality Monitoring undertaken in the City.

Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
				defined in the CDP relating to the protection of air quality. Minimise ambient air quality standard exceedances in the City.	
	AQN3	Avoid or minimise adverse noise impacts.	Number of sensitive receptors exposed to noise nuisance.	No sensitive receptors exposed to nuisance noise in the City.	Internal monitoring of likely significant environmental effects of development projects. Monitoring of internal noise complaint investigations undertaken. Consultation with the EPA.
Water	W1	Maintain and/or improve, the quality and status of surface waters.	Status of surface water bodies as reported by the EPA Water Monitoring Programme for the Water Framework Directive (WFD) Status of bathing waters as monitored under the Bathing Water Directive.	Number of Pollution Incidents detected due to poor bathing water quality results. Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status.' No deterioration in the status of any bathing waters, having appropriate regard to bathing water mandatory and guidelines values defined in the Bathing Water Directive. Implementation of the objectives of the second cycle of the national River Basin Management Plan.	EPA surface water monitoring data and reports. EPA bathing water monitoring data and reports.
	W2	Maintain and/or improve, the chemical and quantitative status of groundwaters.	Status of groundwater bodies as reported by the EPA National Groundwater Monitoring Programme for the WFD.	No deterioration in the status of groundwater quality, having appropriate regard to Groundwater Quality Standards and Threshold Values defined under Directive 2006/118/EC.	EPA groundwater monitoring data and reports.

Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
	W3	Prevent impact upon the WFD status of surface waters and groundwater in line with the requirements of the WFD.	Number of instances of significant adverse impact on surface water or groundwater bodies resulting in a reduction in water quality or the ability of a water body to achieve 'good' water quality status.	No instances of significant adverse impact on surface water or groundwater bodies resulting in a reduction in water quality or the ability of a water body to achieve 'good' water quality status.	Internal monitoring of likely significant environmental effects of development projects. Consultation with the EPA.
	W4	Comply as appropriate with the provisions of the Flood Risk Management Guidelines.	Number of incompatible developments (supported by the plan) permitted within flood risk areas.	Minimise developments (supported by the plan) granted permission on lands which pose - or are likely to pose in the future - a significant flood risk, having appropriate regard to the Flood Risk Management guidelines.	Internal monitoring of development projects granted planning consent.
	W5	Prevent impact upon drinking water quality	Number of non-compliances with Drinking Water Quality Standards defined in the European Union (Drinking Water) Regulations 2023.	No non-compliances with Drinking Water Quality Standards defined in the European Union (Drinking Water) Regulations 2023.	EPA Drinking Water Quality Reports.
Material Assets	MAI1	Avoid or minimise effects on built/amenity assets and infrastructure	Number of incompatible developments (supported by the plan) adversely affecting built/amenity assets and infrastructure.	No incompatible development (supported by the plan) adversely affecting built/amenity assets and infrastructure.	Internal monitoring of likely significant environmental effects of development projects.
	MAI2	Avoid or minimise effects on effects upon existing and (where known) planned infrastructure.	Number of incompatible developments (supported by the plan) adversely affecting existing or planned infrastructure, including water supply, wastewater management, energy and transport infrastructure.	No incompatible development (supported by the plan) adversely affecting existing or planned material assets infrastructure.	Internal monitoring of likely significant environmental effects of development projects, including monitoring of effects on other future planned or committed material asset infrastructure projects. Consultation with Irish Water, Gas Networks Ireland, ESB Networks and Transport Infrastructure Ireland.

Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
	MAI3	Promote sustainable transportation.	% change in modal split. Kilometres of permanent segregated cycling network. Kilometres of permanent integrated cycling network. Number of Electric Vehicle charging points in the city. Total Area of road reallocated for sustainable alternatives (m^2).	Percentage increase in the number of public transport users in the City Increase kilometres of permanent segregated cycling network. Increase kilometres of permanent segregated cycling network. Increase number of Electric Vehicle charging points in the city. Increase Total Area of road reallocated for sustainable alternatives.	CSO Population data - Commuting in Ireland. Internal monitoring of length of new sustainable transport routes developed.
	MAI4	Promote sustainable waste management.	Tonnes of hazardous waste received at Council Waste Management Facilities annually. Tonnes of W.E.E.E. waste received at Council Waste Management Facilities annually. Tonnes of Bulky waste received at Council Waste Management Facilities annually. Tonnes of garden waste received at Council Waste Management Facilities annually.	Increase waste recycling in the City. Reduce waste generation in the City.	EPA Waste Statistics. Consultation with the EPA.
	MAI5	Promote sustainable water use and drainage management.	Level of water use in the City. Compliance with Sustainable Drainage System (SuDS) related development management standards defined in the CDP.	Reduced water use in the city. All development (supported by the plan) must comply with SuDS related development management standards defined in the CDP.	CSO water consumption data. Internal monitoring of flood risk associated with of development projects and development project compliance with relevant flood risk and management related development management standards.
Tourism & Recreation	TR1	Avoid or minimise effects upon tourism and recreation amenities.	Visitor trips to local authority functional area	Stable or increasing number of visitor trips to local authority functional area	Fáilte Ireland Data on Tourism Performance

Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
Climate Change	CF1	Delivery of the necessary action to support the national target of 80% electricity from renewable sources by 2030.	Level of Greenhouse Gas (GHG) emissions in the City. Level of renewable energy infrastructure in the City.	Reduce GHG emissions associated with the Energy sector in the City. Increase the level of renewable energy infrastructure in the City.	EPA National Emission Inventory. Baseline Emission Inventory for the City. Megawatt hour (MWh) output from renewable energy infrastructure in the city.
	CF2	Actively support the delivery of all national climate policy as appropriate to the city with the prioritisation and acceleration of evidence-based measures.	Level of GHG emissions in the City	Reduce GHG emissions for all sectors in the City.	EPA National Emission Inventory. Baseline Emission Inventory for the City.
	CF3	CF3: Assist in the delivery of the climate neutrality objective at local and community levels.	Level of GHG emissions in the City. Level of GHG emissions in the Decarbonising Zone. Net addition of tree cover added.	Reduce GHG emission in the City to Net Zero. Reduce Decarbonising Zone GHG emissions to Net Zero. Increase level of tree cover in the City.	EPA National Emission Inventory. Baseline Emission Inventory for the City. Baseline Emission Inventory for the Decarbonising Zone.
	CF4	Deliver a Decarbonising Zone (DZ) within the local authority area to act as a test bed for a range of climate mitigation and adaptation measures in a specifically defined area through the identification of projects and outcomes that will assist in the delivery of the National Climate Objective.	Level of GHG emissions in the Decarbonising Zone.	Reduce Decarbonising Zone GHG emissions to Net Zero.	Baseline Emission Inventory for the Decarbonising Zone.
Inter-relationships	IR1	Maintain and improve the health of people, ecosystems and natural processes Actively seek to integrate opportunities for environmental enhancement during adaptation to climate change	Number of blue and green infrastructure measures included as part of development projects that have been granted planning consent.	Increase the number of blue and green infrastructure measures included as part of development projects that have been granted planning consent.	Review of granted planning consent.

FEHILY TIMONEY

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APPENDIX 1

Relationship of the Plan with other relevant Plans and Programmes

This appendix is not intended to be a full and comprehensive review of EU Directives, the transposing regulations or the regulatory framework for environmental protection and management. The information is not exhaustive and it is recommended to consult the Directive, Regulation, Plan or Programme to become familiar with the full details of each.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
European Level			
SEA Directive (2001/42/EC)	• Contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development. • Provide for a high level of protection of the environment by carrying out an environmental assessment of plans and programmes which are likely to have significant effects on the environment.	• Carry out and environmental assessment for plans or programmes referred to in Articles 2 to 4 of the Directive. • Prepare an environmental report which identifies, describes and evaluates the likely significant effects on the environment of implementing the plan or programme and reasonable alternatives that consider the objectives and the geographical scope of the plan or programme. • Consult with relevant authorities, stakeholders and public allowing sufficient time to make a submission. • Consult other Member States where the implementation of a plan or programme is likely to have transboundary environmental effects. • Inform relevant authorities and stakeholders on the decision to implement the plan or programme. • Issue a statement to include requirements detailed in Article 9 of the Directive. • Monitor and mitigate significant environmental effects identified by the assessment.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
EIA Directive (2011/92/EU as amended by 2014/52/EU)	• Requires the assessment of the environmental effects of public and private projects which are likely to have significant effects on the environment. • Aims to assess and implement avoidance or mitigation measures to eliminate environmental effects, before consent is given of projects likely to have significant effects on the environment by virtue, inter alia, of their nature, size or location are made subject to a requirement for development consent and an assessment with regard to their effects. Those projects are defined in Article 4.	• All projects listed in Annex I are considered as having significant effects on the environment and require an EIA. • For projects listed in Annex II, a "screening procedure" is required to determine the effects of projects on the basis of thresholds/criteria or a case by case examination. This should take into account Annex III. • The environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case and in accordance with Articles 4 to 12, the direct and indirect effects of a project on the following factors: human beings, fauna and flora, soil, water, air, climate and the landscape, material assets and the cultural heritage, the interaction between each factor. • Consult with relevant authorities, stakeholders and public allowing sufficient time to make a submission before a decision is made.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Habitats Directive (92/43/EEC)	• Promote the preservation, protection and improvement of the quality of the environment, including the conservation of natural habitats and of wild fauna and flora. • Contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora. • Maintain or restore to favourable conservation status, natural habitats and species of wild fauna and flora of community interest.	• Propose and protect sites of importance to habitats, plant and animal species. • Establish a network of European sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, to enable the natural habitat types and the species' habitats concerned to be maintained or, where appropriate, restored at a favourable conservation status in their natural range. • Carry out comprehensive assessment of habitat types and species present. • Establish a system of strict protection for the animal species and plant species listed in Annex IV.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
	• Promote the maintenance of biodiversity, taking account of economic, social, cultural and regional requirements.		
Birds Directive (2009/147/EC)	• Conserve all species of naturally occurring birds in the wild state including their eggs, nests and habitats. • Protect, manage and control these species and comply with regulations relating to their exploitation. • The species included in Annex I shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution.	• Preserve, maintain or re-establish a sufficient diversity and area of habitats for all the species of birds referred to in Annex 1. • Preserve, maintain and establish biotopes and habitats to include the creation of protected areas (Special Protection Areas). • Ensure the upkeep and management in accordance with the ecological needs of habitats inside and outside the protected zones, re-establish destroyed biotopes and creation of biotopes. • Measures for regularly occurring migratory species not listed in Annex I is required as regards their breeding, moulting and wintering areas and staging posts along their migration routes. The protection of wetlands and particularly wetlands of international importance.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Bathing Water Directive (revised) 2006 [2006/7/EC]	The purpose of this Directive is to preserve, protect and improve the quality of the environment and to protect human health by complementing Directive 2000/60/EC	This Directive lays down provisions for: • the monitoring and classification of bathing water quality; • the management of bathing water quality; and • the provision of information to the public on bathing water quality	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
EU Nitrates Directive (91/676/EC)	Reducing water pollution caused or induced by nitrates from agricultural sources and - preventing further such pollution.	Ireland's Nitrates Action Programme is designed to prevent pollution of surface waters and ground water from agricultural sources and to protect and improve water quality. Ireland's third NAP came into operation in 2014. Each Member State's NAP must include: • a limit on the amount of livestock manure applied to the land each year • set periods when land spreading is prohibited due to risk • set capacity levels for the storage of livestock manure	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Directive 2010/75/EU on industrial emissions	The purpose of this Directive is lay down rules to prevent or, where that is not practicable, to reduce industrial emissions into air, water and land and to prevent the generation of waste, in order to achieve a high level of environmental protection.	The legislation covers industrial activities in the following sectors: • energy; • metal production and processing; • minerals; • chemicals; • waste management; • and other sectors such as pulp and paper production, slaughterhouses and the intensive rearing of poultry and pigs. All installations covered by the directive must prevent and reduce pollution by applying the best available techniques (BATs)* and address efficient energy use, waste prevention and management and measures to prevent accidents and limit their consequences.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
EU Plant Protection (products) Directive 2009/127/EC	• The Directive aims at reducing the risks and impacts of pesticide use on human health and • the environment by introducing different targets, tools and measures such as Integrated Pest • Management (IPM) or National Action Plans (NAPs).	• The Framework Directive applies to pesticides which are plant protection products. • Regarding pesticide application equipment already in professional use, the Framework Directive introduces requirements for the inspection and maintenance to be carried out on such equipment.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Renewable Energy Directive (EU/2018/2001)	• This Directive sets an overall European renewable energy target of 32% by 2030 and includes rules to ensure the uptake of renewables in the transport sector and in heating and cooling. • The directive sets common principles and rules for renewable energy support schemes, sustainability criteria for biomass and the right to produce and consume renewable energy and to establish renewable energy communities. • It also establishes rules to remove barriers, stimulate investments and drive cost reductions in renewable energy technologies and empowers citizens and businesses to participate in the clean energy transformation.	• The Directive promotes cooperation amongst EU countries (and with countries outside the EU) to help them meet their renewable energy targets. • The Directive specifies national renewable energy targets for each country, taking into account its starting point and overall potential for renewables. • EU countries set out how they plan to meet these targets and the general course of their renewable energy policy in national renewable energy action plans. • Progress towards national targets is measured every two years when EU countries publish national renewable energy progress reports.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Directive 2018/2001 on the promotion of the use of energy from renewable sources (recast)	This Directive establishes a common framework for the promotion of energy from renewable sources. It sets a binding European Union target for the overall share of energy from renewable sources in the Union's gross final consumption of energy in 2030: Member States shall collectively ensure that the share of energy from renewable sources in the Union's gross final consumption of energy in 2030 is at least 32%. Support schemes for energy from renewable sources shall be adopted by Member States. Provisions on joint projects between Member States and between Member States and third countries are laid down too.	The Directive lays down rules on financial support for electricity from renewable sources, on self-consumption of such electricity, on the use of energy from renewable sources in the heating and cooling sector and in the transport sector, on regional cooperation between Member States, and between Member States and third countries, on guarantees of origin, on administrative procedures and on information and training. It also establishes sustainability and greenhouse gas emissions saving criteria for biofuels, bioliquids and biomass fuels. The latter include fuels produced from waste, from agricultural biomass and from forest biomass. The Commission shall monitor the origin of biofuels, bioliquids and biomass fuels consumed in the European Union and the impact of their production, including the impact as a result of displacement, on land use in the Union and in the main third countries of supply.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Alternative Fuels Infrastructure Directive (2014/94/EU)	This Directive establishes a common framework of measures for the deployment of alternative fuels infrastructure in the Union in order to minimise dependence on oil and to mitigate the environmental impact of transport.	This Directive sets out minimum requirements for the building-up of alternative fuels infrastructure, including recharging points for electric vehicles and refuelling points for natural gas (LNG and CNG) and hydrogen, to be implemented by means of Member States' national policy frameworks, as well as common technical specifications for such recharging and refuelling points, and user information requirements.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Energy Efficiency Directive (EU) 2023/1791	The new directive introduces a series of measures to help accelerate energy efficiency, including embracing the "energy efficiency first" principle in the energy and non-energy policies.	• Establishing an EU legally-binding target to reduce the EU's final energy consumption by 11.7% by 2030 (relative to the 2020 reference scenario). This includes for each Member State the requirement to set its indicative national contribution based on objective criteria reflecting national circumstances. If the national contributions do not add up to the EU target, an ambition gap mechanism is applied by the Commission. • Increasing annual energy savings from 0.8% (at present) to 1.3% (2024-2025), then 1.5% (2026-2027) and 1.9% from 2028 onwards. That's an average of 1.49% of new annual savings for the period from 2024-2030. • Obliging Member States to prioritise vulnerable customers and social housing within the scope of their energy savings measures. • Introducing an annual energy consumption reduction target of 1.9% for the public sector as a whole. • Extending the annual 3% buildings renovation obligation to all the levels of public administration. • Introducing a different approach, based on energy consumption, for business to have an energy management system or to carry out an energy audits. • Bringing in a new obligation to monitor the energy performance of data centres, with an EU-level database collecting and publishing data. • Promoting local heating & cooling plans in larger municipalities.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
		• Progressively increasing the efficient energy consumption in heat or cold supply, also in district heating.	
EU Seveso Directive (2012/18/EU)	This Directive lays down rules for the prevention of major accidents which involve dangerous substances, and the limitation of their consequences for human health and the environment, with a view to ensuring a high level of protection throughout the Union in a consistent and effective manner.	• The Seveso Directive is well integrated with other EU policies, thus avoiding double regulation or other administrative burden. This includes the following related policy areas: • Classification, labelling and packaging of chemicals; • The Union's Civil Protection Mechanism; • The Security Union Agenda including CBRN-E and Protection of critical infrastructure; • Policy on environmental liability and on the protection of the environment through criminal law; • Safety of offshore oil and gas operations.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Maritime Spatial Planning Directive (2014/89/EU)	This Directive establishes a framework for maritime spatial planning aimed at promoting the sustainable growth of maritime economies, the sustainable development of marine areas and the sustainable use of marine resources.	• Each Member State shall establish and implement maritime spatial planning. • In doing so, Member States shall take into account land-sea interactions. • The resulting plan or plans shall be developed and produced in accordance with the institutional and governance levels determined by Member States. This Directive shall not interfere with Member States' competence to design and determine the format and content of that plan or those plans. • Maritime spatial planning shall aim to contribute to the objectives listed in Article 5 and fulfil the requirements laid down in Articles 6 and 8.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
		• When establishing maritime spatial planning, Member States shall have due regard to the particularities of the marine regions, relevant existing and future activities and uses and their impacts on the environment, as well as to natural resources, and shall also take into account land-sea interactions. • Member States may include or build on existing national policies, regulations or mechanisms that have been or are being established before the entry into force of this Directive, provided they are in conformity with the requirements of this Directive.	
UK Marine Policy Statement	• Achieving a sustainable marine economy • Ensuring a strong, healthy and just society • Living within environmental limits • Promoting good governance • Using sound science responsibly	The MPS will facilitate and support the formulation of Marine Plans, ensuring that marine resources are used in a sustainable way in line with the high level marine objectives and thereby: • Promote sustainable economic development; • Enable the UK's move towards a low-carbon economy, in order to mitigate the causes of climate change and ocean acidification and adapt to their effects; • Ensure a sustainable marine environment which promotes healthy, functioning marine ecosystems and protects marine habitats, species and heritage assets; and • Contribute to the societal benefits of the marine area, including the sustainable use of marine resources to address local social and economic issues	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Marine and Coastal Access Act 2009	• Aims to provide the legal mechanism to help ensure clean, healthy, safe, productive and biologically diverse oceans and seas by putting in place a new system for improved management and protection of the marine and coastal environment.	The Marine Act comprises eight key elements: • Marine Management Organisation (MMO) • Strategic Marine Planning System • Streamlined Marine Licensing System • Marine Nature Conservation • Fisheries Management and Marine Enforcement • Migratory and Freshwater Fisheries • Coastal Access • Coastal and Estuarine Management	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Marine (Northern Ireland) Act 2013	• Aims to provide for marine plans in relation to the Northern Ireland inshore region; to provide for marine conservation zones in that region; to make further provision in relation to marine licensing for certain electricity works in that region; and for connected purposes.	The Marine Act sets out a new framework for Northern Ireland's seas based on: a system of marine planning that will balance conservation, energy and resource needs; improved management for marine nature conservation and the streamlining of marine licensing for some electricity projects. The main provisions of the Act are outlined below: • Marine Planning • Nature Conservation • Marine Licensing	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Biodiversity Strategy for 2030 - Bringing nature back into our lives (European Commission, 2020)	The EU's biodiversity strategy for 2030 is a comprehensive, ambitious and long-term plan to protect nature and reverse the degradation of ecosystems. The strategy aims to put Europe's biodiversity on a path to recovery by 2030, and contains specific actions and commitments.	The Strategy contains specific commitments and actions to be delivered by 2030, including: • Establishing a larger EU-wide network of protected areas on land and at • sea, building upon existing Natura 2000 areas, with strict protection for areas of very high biodiversity and climate value.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in

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		• An EU Nature Restoration Plan - a series of concrete commitments and actions to restore degraded ecosystems across the EU by 2030, and manage them sustainably, addressing the key drivers of biodiversity loss. • A set of measures to enable the necessary transformative change: setting in motion a new, strengthened governance framework to ensure better implementation and track progress, improving knowledge, financing and investments and better respecting nature in public and business decision making. • Measures to tackle the global biodiversity challenge, demonstrating that the EU is ready to lead by example towards the successful adoption of an ambitious global biodiversity framework under the Convention on Biological Diversity.	combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Green Infrastructure Strategy	Aims to create a robust enabling framework in order to promote and facilitate Green Infrastructure (GI) projects.	• Promoting GI in the main EU policy areas. • Supporting EU-level GI projects. • Improving access to finance for GI projects. • Improving information and promoting innovation.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
UNESCO (1972) The Convention for the Protection of the World Cultural and Natural Heritage	• links concepts of nature conservation and the preservation of cultural properties; and • recognizes the way in which people interact with nature, and the fundamental need to preserve the balance between the two.	• sets out the duties of States Parties in identifying potential sites and their role in protecting and preserving them; • each country pledges to conserve not only the World Heritage sites situated on its territory, but also to protect its national heritage; • encourages to integrate the protection of the cultural and natural heritage into regional planning programmes, set up staff and services at their sites, undertake scientific and technical conservation research and adopt measures which give this heritage a function in the day-to-day life of the community.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
UN (1992) The Convention on Biological Diversity	An overall objective is to develop national strategies for the conservation and sustainable use of biological diversity.	The Convention has three main goals: • the conservation of biological diversity (or biodiversity); • the sustainable use of its components; and • the fair and equitable sharing of benefits arising from genetic resources.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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UN (1992) Framework Convention on Climate Change	It is aimed at stabilising greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.	The Convention acknowledges the vulnerability of all countries to the effects of climate change and calls for special efforts to ease the consequences, especially in developing countries which lack the resources to do so on their own.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
UN Kyoto Protocol (2nd Kyoto Period), the Second European Climate Change Programme (ECCP II), Paris climate conference (COP21) 2015 (Paris Agreement)	The UN Kyoto Protocol set of policy measures to reduce greenhouse gas emissions. The Second European Climate Change Programme (ECCP II) aims to identify and develop all the necessary elements of an EU strategy to implement the Kyoto Protocol. At the Paris climate conference (COP21) in December 2015, 195 countries adopted the first-ever universal, legally binding global climate deal. The agreement sets out a global action plan to put the world on track to avoid dangerous climate change by limiting global warming to well below 2°C.	• The Kyoto Protocol is implemented through the European Climate Change Programme (ECCP II). • EU member states implement measures to improve on or compliment the specified measures and policies arising from the ECCP. • Under COP21, governments agreed to come together every 5 years to set more ambitious targets as required by science; report to each other and the public on how well they are doing to implement their targets; track progress towards the long-term goal through a robust transparency and accountability system.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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EU 2020 Climate and Energy Package	• Binding legislation which aims to ensure the European Union meets its climate and energy targets for 2020. • Aims to achieve a 20% reduction in EU greenhouse gas emissions from 1990 levels. • Aims to raise the share of EU energy consumption produced from renewable resources to 20%. • Achieve a 20% improvement in the EU's energy efficiency.	Four pieces of complimentary legislation: • Reform of the EU Emissions Trading System (EU ETS) to include a cap on emission allowances in addition to existing system of national caps. • Member States have agreed national targets for non-EU ETS emissions from countries outside the EU. • Meet the national renewable energy targets of 16% for Ireland by 2020. • Preparing a legal framework for technologies in carbon capture and storage.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU 2030 Framework for Climate and Energy	• A 2030 Framework for climate and energy, including EU-wide targets and policy objectives for the period between 2020 and 2030 that has been agreed by European countries. • Targets include a 40% cut in greenhouse gas emissions compared to 1990 levels, at least a 27% share of renewable energy consumption and at least 27% energy savings compared with the business-as- usual scenario.	• To meet the targets, the European Commission has proposed the following policies for 2030: • A reformed EU emissions trading scheme (ETS). • New indicators for the competitiveness and security of the energy system, such as price differences with major trading partners, diversification of supply, and interconnection capacity between EU countries. • First ideas for a new governance system based on national plans for competitive, secure, and sustainable energy. These plans will follow a common EU approach. They will ensure stronger investor certainty, greater transparency, enhanced policy coherence and improved coordination across the EU.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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The Clean Air for Europe Directive (2008/50/EC) (EU Air Framework Directive) **Fourth Daughter Directive (2004/107/EC)**	• The CAFE Directive merges existing legislation into a single directive (except for the fourth daughter directive). • Sets new air quality objectives for PM2.5 (fine particles) including the limit value and exposure related objectives. • Accounts for the possibility to discount natural sources of pollution when assessing compliance against limit values. • Allows the possibility for time extensions of three years (PM_{10}) or up to five years (NO_2, benzene) for complying with limit values, based on conditions and the assessment by the European Commission. • The Fourth Daughter Directive lists pollutants, target values and monitoring requirements for the following: arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air.	• Sets objectives for ambient air quality designed to avoid, prevent or reduce harmful effects on human health and the environment as a whole. • Aims to assess the ambient air quality in Member States on the basis of common methods and criteria. • Obtains information on ambient air quality in order to help combat air pollution and nuisance and to monitor long-term trends and improvements resulting from national and community measures. • Ensures that such information on ambient air quality is made available to the public. • Aims to maintain air quality where it is good and improving it in other cases. • Aims to promote increased cooperation between the Member States in reducing air pollution.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Noise Directive (2002/49/EC)	The Noise Directive - Directive 2002/49/EC relating to the assessment and management of environmental noise - is part of an EU strategy setting out to reduce the number of people affected by noise in the longer term and to provide a framework for developing existing Community policy on noise reduction from source.	The Directive requires competent authorities in Member States to: • Draw up strategic noise maps for major roads, railways, airports and agglomerations, using harmonised noise indicators and use these maps to assess the number of people which may be impacted upon as a result of excessive noise levels; • Draw up action plans to reduce noise where necessary and maintain environmental noise quality where it is good; and	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
		• Inform and consult the public about noise exposure, its effects, and the measures considered to address noise. The Directive does not set any limit value, nor does it prescribe the measures to be used in the action plans, which remain at the discretion of the competent authorities.	
Floods Directive (2007/60/EC)	• Establishes a framework for the assessment and management of flood risks • Reduce adverse consequences for human health, the environment, cultural heritage and economic activity associated with floods in the Community	• Assess all water courses and coast lines at risk from flooding through Flood Risk Assessment • Prepare flood hazard maps and flood risk maps outlining the extent or potential of flooding and assets and humans at risk in these areas at River Basin District level (Article 3(2) (b)) and areas covered by Article 5(1) and Article 13(1) (b) in accordance with paragraphs 2 and 3. • Implement flood risk management plans and take adequate and coordinated measures to reduce flood risk for the areas covered by the Articles listed above. • Inform the public and allow the public to participate in planning process.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Water Framework Directive (2000/60/EC)	• Establish a framework for the protection of water bodies to include inland surface waters, transitional waters, coastal waters and groundwater and their dependent wildlife and habitats. • Preserve and prevent the deterioration of water status and where necessary improve and maintain “good status” of water bodies. • Promote sustainable water usage.	• Protect, enhance and restore all water bodies and meet the environmental objectives outlined in Article 4 of the Directive. • Achieve "good status" for all waters. • Manage water bodies based on identifying and establishing river basins districts. • Involve the public and streamline legislation.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
	• The Water Framework Directive repealed the following Directives: • The Drinking Water Abstraction Directive • Sampling Drinking Water Directive • Exchange of Information on Quality of Surface Freshwater Directive • Shellfish Directive • Freshwater Fish Directive • Groundwater Directive • Dangerous Substances Directive	• Prepare and implement a River Basin Management Plan for each river basin districts identified and a Register of Protected Areas. • Establish a programme of monitoring for surface water status, groundwater status and protected areas. • Recover costs for water services.	
Groundwater Directive (2006/118/EC)	• Protect, control and conserve groundwater. • Prevent the deterioration of the status of all bodies of groundwater. • Implements measures to prevent and control groundwater pollution, including criteria for assessing good groundwater chemical status and criteria for the identification of significant and sustained upward trends and for the definition of starting points for trend reversals.	• Meet minimum groundwater standards listed in Annex 1 of Directive. • Meet threshold values adopted by national legislation for the pollutants, groups of pollutants and indicators of pollution which have been identified as contributing to the characterisation of bodies or groups of bodies of groundwater as being at risk, also taking into account Part B of Annex II.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Drinking Water Directive (2020/2184)	• The recast Drinking Water Directive is the EU's main law on drinking water. It concerns the access to and the quality of water intended for human consumption to protect human health.	Key features of the revised Directive are: • reinforced water quality standards, in line or, in some cases, even more stringent than the World Health Organisation (WHO) recommendations • tackling emerging pollutants, such as endocrine disruptors and PFAs, as well as microplastics	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
	• The EU adopted the recast Drinking Water Directive in December 2020 and the Directive entered into force in January 2021. Member States have to transpose the Directive into national law and comply with its provisions by 12 January 2023. The recast Drinking Water Directive will further protect human health thanks to updated water quality standards, tackling pollutants of concern, such as endocrine disruptors and microplastics, and leading to even cleaner water from the tap for all.	• a preventive approach favouring actions to reduce pollution at source by introducing the risk-based approach • measures to ensure better access to water, particularly for vulnerable and marginalised groups • measures to promote tap water, including in public spaces and restaurants, to reduce (plastic) bottle consumption • harmonisation of the quality standards for materials and products in contact with water • measures to reduce water leakages and to increase transparency of the sector	
Urban Waste Water Treatment Directive (91/271/EEC)	• This Directive concerns the collection, treatment and discharge of urban waste water and the treatment and discharge of waste water from certain industrial sectors. • The objective of the Directive is to protect the environment from the adverse effects of waste water discharges.	• Urban waste water entering collecting systems shall before discharge, be subject to secondary treatment. • Annex II requires the designation of areas sensitive to eutrophication which receive water discharges. • Establishes minimum requirements for urban waste water collection and treatment systems in specified agglomerations to include special requirements for sensitive areas and certain industrial sectors.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Environmental Liability Directive (2004/35/EC) as amended by Directive 2006/21/EC, Directive 2009/31/EC and	Establish a framework of environmental liability based on the 'polluter-pays' principle, to prevent and remedy environmental damage.	• Relates to environmental damage caused by any of the occupational activities listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities; damage to protected species and natural habitats caused by any occupational activities other than those listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities, whenever the operator has been at fault or negligent.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Directive 2013/30/EU		• Where environmental damage has not yet occurred but there is an imminent threat of such damage occurring, the operator shall, without delay, take the necessary preventive measures. • Where environmental damage has occurred the operator shall, without delay, inform the competent authority of all relevant aspects of the situation and take all practicable steps to immediately control, contain, remove or otherwise manage the relevant contaminants and/or any other damage factors in order to limit or to prevent further environmental damage and adverse effects on human health or further impairment of services and the necessary remedial measures, in accordance with Article 7. • The operator shall bear the costs for the preventive and remedial actions taken pursuant to this Directive. • The competent authority shall be entitled to initiate cost recovery proceedings against the operator. • The operator may be required to provide financial security guarantees to ensure their responsibilities under the directive are met. • The Environmental Liability Directive has been amended through a number of Directives that are not of significant relevance to the SEA for the Guidelines. Implementation of the Environmental Liability Directive is contributed towards by a Multi-Annual Work Programme (MAWP) 'Making the Environmental Liability Directive more fit for purpose' that is updated annually to changing developments, growing • knowledge and new needs.	

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Marine Strategy Framework Directive (2008/56/EC), as amended	The aim of the European Union's ambitious Marine Strategy Framework Directive is to protect more effectively the marine environment across Europe.	The Directive provides various requirements, including: • Completion of an initial assessment of Irish marine waters; • Establishment of establish environmental targets and indicators; • Establishment of a monitoring programme; • Establishment of a programme of measures; and • Implementation of the programme of measures and monitoring programme. Implementation of the Directive is contributed towards by a set of detailed criteria and methodological standards that were revised in 2017 leading to a Commission Decision on "laying down criteria and methodological standards on good environmental status of marine waters and specifications and standardised methods for monitoring and assessment, and repealing Decision 2010/477/EU". Annex III "Indicative lists of characteristics, pressures and impacts" of the Directive was amended in 2017.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Convention on the Protection of the Archaeological Heritage (Valletta 1992)	The aim of this (revised) Convention is to protect the archaeological heritage as a source of the European collective memory and as an instrument for historical and scientific study.	The Valletta Convention makes the conservation and enhancement of the archaeological heritage one of the goals of urban and regional planning policies. The Convention sets guidelines for the funding of excavation and research work and publication of research findings. It also deals with public access, in particular to archaeological sites, and educational actions to be undertaken to develop public awareness of the value of the archaeological heritage.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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		It also constitutes an institutional framework for pan-European co-operation on the archaeological heritage, entailing a systematic exchange of experience and experts among the various States.	
Convention of the Protection of the Architectural Heritage of Europe (Granada 1995)	The main purpose of the Convention is to reinforce and promote policies for the conservation and enhancement of Europe's heritage. It also affirms the need for European solidarity with regard to heritage conservation and is designed to foster practical co- operation among the Parties. It establishes the principles of "European co-ordination of conservation policies" including consultations regarding the thrust of the policies to be implemented.	• The reinforcement and promotion of policies for protecting and enhancing the heritage within the territories of the parties. • The affirmation of European solidarity with regard to the protection of the heritage and the fostering of practical co- operation between states and regions.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
ICOMOS (2011) Principles for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes ('Dublin Principles')	It is aimed to assist in the documentation, protection, conservation and appreciation of industrial heritage as part of the heritage of human societies around the World.	• (I) Document and understand industrial heritage structures, sites, areas and landscapes and their values; • (II) Ensure effective protection and conservation of the industrial heritage structures, sites, areas and landscapes; • (III) Conserve and maintain the industrial heritage structures, sites, areas and landscapes; and • (IV) Present and communicate the heritage dimensions and values of industrial structures, sites, areas and landscapes to raise public and corporate awareness, and support training and research.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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Council of Europe Framework Convention on the Value of Cultural Heritage for Society (Faro 2005)	• Cultural heritage is a group of resources inherited from the past which people identify, independently of ownership, as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions. It includes all aspects of the environment resulting from the interaction between people and places through time. • A heritage community consists of people who value specific aspects of cultural heritage which they wish, within the framework of public action, to sustain and transmit to future generations.	• Recognise that rights relating to cultural heritage are inherent in the right to participate in cultural life, as defined in the Universal Declaration of Human Rights. • Recognise individual and collective responsibility towards cultural heritage. • Emphasise that the conservation of cultural heritage and its sustainable use have human development and quality of life as their goal. • Take the necessary steps to apply the provisions of this Convention concerning the role of cultural heritage in the construction of a peaceful and democratic society. • Greater synergy of competencies among all the public, institutional and private actors concerned.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Landscape Convention 2000	The developments in agriculture, forestry, industrial and mineral production techniques, together with the practices followed in town and country planning, transport, networks, tourism and recreation, and at a more general level, changes in the world economy, have in many cases accelerated the transformation of landscapes. The Convention expresses a concern to achieve sustainable development based on a balanced and harmonious relationship between social needs, economic activity and the environment. It aims to respond to the public's wish to enjoy high quality landscapes.	• Promote protection, management and planning of landscapes. • Organise European co-operation on landscape issues.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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The Seventh Environmental Action Programme (EAP) of the European Community (2013-2020)	It identifies three key objectives: • to protect, conserve and enhance the Union's natural capital • to turn the Union into a resource-efficient, green, and competitive low-carbon economy • to safeguard the Union's citizens from environment- related pressures and risks to health and wellbeing	Four so called "enablers" will help Europe deliver on these objectives (goals): • Better implementation of legislation. • Better information by improving the knowledge base. • More and wiser investment for environment and climate policy. • Full integration of environmental requirements and considerations into other policies. • Two additional horizontal priority objectives complete the programme: • To make the Union's cities more sustainable. • To help the Union address international environmental and climate challenges more effectively.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Bern Convention (Convention on the Conservation of European Wildlife and Natural Habitats)	The convention has three main aims: • to conserve wild flora and fauna and their natural habitats • to promote cooperation between states • to give particular attention to endangered and vulnerable species including endangered and vulnerable migratory species	The Parties under the convention recognise the intrinsic value of nature, which needs to be preserved and passed to future generations, they also: • Seek to ensure the conservation of nature in their countries, paying particular attention to planning and development policies and pollution control. • Look at implementing the Bern Convention in central Eastern Europe and the Caucus. • Take account of the potential impact on natural heritage by other policies. • Promote education and information of the public, ensuring the need to conserve species is understood and acted upon.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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		• Develop an extensive number of species action plans, codes of conducts, and guidelines, at their own initiative or in co- operation with other organisations. • Created the Emerald Network, an ecological network made up of Areas of Special Conservation Interest.	
Bali Road Map (2007)	The overall goals of the project are twofold: • To increase national capacity to co-ordinate ministerial views, participate in the UNFCCC process, and negotiate positions within the timeframe of the Bali Action Plan; and • To assess investment and financial flows to address climate change for up to three key sectors and/or economic activities.	The Bali Action Plan is centred on four main building Blocks: • mitigation • adaptation • technology • financing	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Cancun Agreements (2010)	Set of decisions taken at the COP 16 Conference in Cancun in 2010 which addresses a series of key issues in the fight against climate change. Cancun Agreements' main objectives cover: • Mitigation • Transparency of actions • Technology • Finance • Adaptation • Forests • Capacity building	Among the most prominent agreements is the establishment of a Green Climate Fund to transfer money from the developed to developing world to tackle the impacts of climate change.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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Doha Climate Gateway (2012)	Set of decisions taken at the COP 18 meeting in Doha in 2012 which pave the way for a new agreement in Paris in 2015.	• The following actions were committed to by governments at this conference: • Set out a timetable to adopt a universal climate agreement by 2015 (to come into effect in 2020); • Complete the work under Bali Action Plan and to focus on new completing new targets; • Strengthen the aim to cut greenhouse gases and help vulnerable countries to adapt; • Amend Kyoto Protocol to include a new commitment period for cutting down the greenhouse gases emissions; and • Provide the financial and technology support and new institutions to allow clean energy investment and sustainable growth in developing countries.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Common Agricultural Policy	• To improve agricultural productivity, so that consumers have a stable supply of affordable food; and • To ensure that EU farmers can make a reasonable living.	• Ensuring viable food production that will contribute to feeding the world's population, which is expected to rise considerably in the future; • Climate change and sustainable management of natural resources; • Looking after the countryside across the EU and keeping the rural economy alive.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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EU REACH Regulation (EC 1907/2006)(as amended)	Aims to improve the protection of human health and the environment through the better and earlier identification of the intrinsic properties of chemical substances.	The aims are achieved by applying REACH, namely: • Registration, • Evaluation, • Authorisation; and • Restriction of chemicals. REACH also aims to enhance innovation and competitiveness of the EU chemicals industry.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Stockholm Convention	The objective of the Stockholm Convention is to protect human health and the environment from persistent organic pollutants.	• Prohibit and/or eliminate the production and use, as well as the import and export, of the intentionally produced POPs that are listed in Annex A to the Convention • Restrict the production and use, as well as the import and export, of the intentionally produced POPs that are listed in Annex B to the Convention • Reduce or eliminate releases from unintentionally produced POPs that are listed in Annex C to the Convention • Ensure that stockpiles and wastes consisting of, containing or contaminated with POPs are managed safely and in an environmentally sound manner • To target additional POPs • Other provisions of the Convention relate to the development of implementation plans, information exchange, public information, awareness and education, research, development and monitoring, technical assistance, financial resources and mechanisms, reporting, effectiveness evaluation and non-compliance	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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Ramsar Convention	The Convention's mission is "the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world".	Under the "three pillars" of the Convention, the Contracting Parties commit to: • Work towards the wise use of all their wetlands; • Designate suitable wetlands for the list of Wetlands of International Importance (the "Ramsar List") and ensure their effective management; • Cooperate internationally on transboundary wetlands, shared wetland systems and shared species.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
OSPAR Convention	The mission of OSPAR is to conserve marine ecosystems and safeguard human health in the North-East Atlantic by preventing and eliminating pollution; by protecting the marine environment from the adverse effects of human activities; and by contributing to the sustainable use of the seas.	OSPAR's work is organised under six strategies: • Biodiversity and Ecosystem Strategy • Eutrophication Strategy • Hazardous Substances Strategy • Offshore Industry Strategy • Radioactive Substances Strategy • Strategy for the Joint Assessment and Monitoring Programme These six strategies fit together to underpin the ecosystem approach. For each strategy a programme of work is designed and implemented annually.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European 2020 Strategy for Growth	Europe 2020 sets out a vision of Europe's social market economy for the 21st century and puts forward three mutually reinforcing priorities: • Smart growth: developing an economy based on knowledge and innovation; • Sustainable growth: promoting a more resource efficient, greener and more competitive economy;	In order to reach these priorities, the Commission proposes five quantitative targets to fulfil by 2020: 1. 75 % of the population aged 20-64 should be employed; 2. 3% of the EU's GDP should be invested in R&D;	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory

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	• Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion.	3. the "20/20/20" climate/energy targets should be met (including an increase to 30% of emissions reduction if the conditions are right); 4. the share of early school leavers should be under 10% and at least 40% of the younger generation should have a tertiary degree; 5. 20 million less people should be at risk of poverty.	framework for environmental protection and management.
The European Green Deal (EGD) 2019	The deal sets out how to make Europe the first climate-neutral continent by 2050, boosting the economy, improving people's quality of life, caring for nature and leaving no one behind.	• It sets out a roadmap with actions to boost the efficient use of resources by moving to a clean, circular economy, restore biodiversity and cut pollution. • It outlines investments required, financing tools available and explains how to ensure a just and inclusive transition. • In order to meet the goal to become climate neutral by 2050 as part of the European Green Deal, the European Union (EU) Commission proposed on 4th March 2020 to bring about the first European Climate Law and legally bind the target of net zero greenhouse gas emissions by 2050	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU (2018) Clean Air Policy Package	Aims to substantially reduce air pollution across the EU.	The proposed strategy sets out objectives for reducing the health and environmental impacts of air pollution by 2030, and contains legislative proposals to implement stricter standards for emissions and air pollution.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies

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			and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Level			
Ireland 2040 - Our Plan, the National Planning Framework, and the National Development Plan (2021 - 2030)	• The National Planning Framework is the Government's high-level strategic plan for shaping the future growth and development of to the year 2040. It is a framework to guide public and private investment, to create and promote opportunities for people, and to protect and enhance the environment - from villages to cities, and everything around and in between. • The National Development Plan sets out the investment priorities that will underpin the successful implementation of the new National Planning Framework. This will guide national, regional and local planning and investment decisions in Ireland over the next two decades, to cater for an expected population increase of over 1 million people.	The National Planning Framework published alongside the National Development Plan yields ten National Strategic Outcomes as follows: 1. Compact Growth 2. Enhanced Regional Accessibility 3. Strengthened Rural Economies and Communities 4. Sustainable Mobility 5. A Strong Economy, supported by Enterprise, Innovation and Skills 6. High-Quality International Connectivity 7. Enhanced Amenity and Heritage 8. Transition to a Low-Carbon and Climate-Resilient Society 9. Sustainable Management of Water and other Environmental Resources 10. Access to Quality Childcare, Education and Health Services	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Planning, Land Use and Transport Outlook 2040 [In Preparation]	The PLUTO will take account of forecasted future economic and demographic scenarios, affordability considerations and relevant Government policies and will: • Quantify in broad terms the appropriate scale of financial investment in land transport over the long term;	In preparation.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory

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	• Consider how fiscal, environmental and technological developments might impact on this investment; and, • Identify strategic priorities for future investment to ensure land transport infrastructure provision facilitates the objectives of Project Ireland 2040.		framework for environmental protection and management.
Planning and Development Act 2000 (as amended)	The core principal objectives of this Act are to amend the Planning Acts of 2000 – 2022 with specific regard given to supporting economic renewal and sustainable development.	• Development, with certain exceptions, is subject to development control under the Planning Acts and the local authorities grant or refuse planning permission for development, including ones within protected areas. • There are, however, a range of exemptions from the planning system. Use of land for agriculture, peat extraction and afforestation, subject to certain thresholds, is generally exempt from the requirement to obtain planning permission. • Additionally, Environmental Impact Assessment (EIA) is required for a range of classes and large scale projects. • Under planning legislation, Development Plans must include mandatory objectives for the conservation of the natural heritage and for the conservation of European sites and any other sites which may be prescribed. There are also discretionary powers to set objectives for the conservation of a variety of other elements of the natural heritage.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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European Communities (Environmental Assessment of Certain Plans and Programmes Regulations 2004 (S.I. 435 of 2004), as amended by S.I. 200 of 2011	• The purpose of these Regulations is to transpose into Irish law Directive 2001/42/EC of 27 June 2001 (O.J. No. L 197, 21 July 2001) on the assessment of the effects of certain plans and programmes on the environment — commonly known as the Strategic Environmental Assessment (SEA) Directive.	• The Regulations cover plans and programmes in all of the sectors listed in article 3(2) of the Directive except land-use planning. • These Regulations also amend certain provisions of the Planning and Development Act 2000 to provide the statutory basis for the transposition of the Directive in respect of land-use planning. • Transposition in respect of the land-use planning sector is contained in the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004).	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011, as amended)	These Regulations provide a new for the implementation in Ireland of Council Directive 92/43/EEC on habitats and protection of wild fauna and flora (as amended) and for the implementation of Directive 2009/147/EC of the European Parliament and of the Council on the protection of wild birds.	• They provide, among other things, for: the appointment and functions of authorized officers; identification, classification and other procedures relative to the designation of Community sites. • The Regulations have been prepared to address several judgments of the CJEU against Ireland, notably cases C- 418/04 and C-183/05, in respect of failure to transpose elements of the Birds Directive and the Habitats Directive into Irish law.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Waste Management Act 1996, as amended	To make provision in relation to the prevention, management and control of waste; to give effect to provisions of certain acts adopted by institutions of the European communities in respect of those matters; to amend the Environmental Protection Agency Act, 1992, and to repeal certain enactments and to provide for related matters.	The Waste Management Act contains a number of key legal obligations, including requirements for waste management planning, waste collection and movement, the authorisation of waste facilities, measures to reduce the production of waste and/or promote its recovery.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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European Communities Environmental Objectives (Freshwater Pearl Mussel) Regulations 2009 (S.I 296 of 2009)	The purpose of these Regulations is to support the achievement of favourable conservation status for freshwater pearl mussels	Actions: • Set environmental quality objectives for the habitats of the freshwater pearl mussel populations named in the First Schedule to these Regulations that are within the boundaries of a site notified in a candidate list of European sites, or designated as a Special Area of Conservation, under the European Communities (Natural Habitats) Regulations, 1997 (S.I. No. 94/1997). • Require the production of sub-basin management plans with programmes of measures to achieve these objectives. • Set out the duties of public authorities in respect of the sub-basin management plans and programmes of measure	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Communities Environmental Objectives (Groundwater) Regulations 2016 (S.I. No. 366 of 2016)	To amend the European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010) to make further provision to implement Commission Directive 2014/80/EU of 20 June 2014 amending Annex II to Directive 2006/118/EC of the European Parliament and of the Council on the protection of groundwater against pollution and deterioration.	The substances and threshold values set out in Schedule 5 to S.I. No. 9 of 2010 have been reviewed and amended where necessary, based on existing monitoring information and international guidelines on appropriate threshold values. • Part A of Schedule 6 has been amended to include changes to the rules governing the determination of background levels for the purposes of establishing threshold values for groundwater pollutants and indicators of pollution. • Part B of Schedule 6 has been amended to include nitrites and phosphorus (total) / phosphates among the minimum list of pollutants and their indicators which the Environmental Protection Agency (EPA) must consider when establishing threshold values	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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		• Part C of Schedule 6 amends the information to be provided to the Minister by the EPA with regard to the pollutants and their indicators for which threshold values have been established	
S.I. No. 113/2022 - European Union (Good Agricultural Practice for Protection of Waters) Regulations 2022	The purpose of the Regulations is to provide a basic set of measures to ensure the protection of waters, including drinking water sources, against pollution caused by nitrogen and phosphorus from agricultural sources, with the primary emphasis on the management of livestock manures and other fertilisers. The set of measures also provide some basic safeguards against possible harmful impacts on water quality arising from agricultural expansion. This basic set of measures has been strengthened over the last two reviews and this new programme provides a further strengthened set of measures to help reduce nitrogen and phosphorus losses from agriculture and contribute to improvements in water quality.	The Regulations include measures such as: • Periods when land application of fertilisers is prohibited • Limits on the land application of fertilisers • Storage requirements for livestock manure; and • Monitoring of the effectiveness of the measures in terms of agricultural practice and impact on water quality.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Bathing Water Quality Regulations 2008 (S.I. 79 of 2008)	These Regulations provide for transposition of the EU Bathing Water Directive 2006 (Directive 2006/7/EC of 15 February 2006) which aims: • To improve health protection for bathers • To establish a more pro-active approach to management of bathing waters, and • To promote increased public involvement and dissemination of information to the public.	• The Regulations establish a new classification system for bathing water quality based on four classifications "poor", "sufficient", "good" and "excellent" and generally require that a classification of at least "sufficient" be achieved by 2015 for all bathing waters. • Local authorities must take appropriate measures with a view to improving waters which are classified as "poor" and increasing the number of bathing waters classified as "good" or "excellent".	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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		• A permanent advice against bathing must be issued in a case where a bathing water is classified as "poor" for five consecutive years. • Local authorities are required annually to identify bathing waters, establish a monitoring calendar, carry out the specified monitoring, report the results to the EPA, carry out appropriate management measures where necessary and provide information to the public. • There must be public participation in the identification of waters and the general implementation of the Regulations. • The EPA is required by the Regulations to classify bathing waters, generally on the basis of the monitoring results for the four preceding bathing seasons, and to publish an annual report in relation to bathing water quality. • Monitoring by local authorities is to commence not later than 2011 with a view to ensuring that a classification is assigned to bathing waters not later than 2015. • Private controllers of access lands may be required to contribute towards the costs incurred by a local authority or the EPA.	

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Bathing Water Quality (Amendment) Regulations 2011 (S.I 351 of 2011)	This Regulation defines further the minimum number of bathing water samples required to carry out a bathing water quality assessment.	Further defines the minimum number of bathing water samples required to carry out a bathing water quality assessment.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Climate Action and Low Carbon Development (Amendment) Act 2021	An Act to provide for the approval of plans by the Government in relation to climate change for the purpose of pursuing the transition to a low carbon, climate resilient and environmentally sustainable economy.	When considering a plan or framework, for approval, the Government shall endeavour to achieve the national transition objective within the period to which the objective relates and shall, in endeavouring to achieve that objective, ensure that such objective is achieved by the implementation of measures that are cost effective and shall, for that purpose, have regard to: • The ultimate objective specified in Article 2 of the United Nations Framework Convention on Climate Change done at New York on 9 May 1992 and any mitigation commitment entered into by the European Union in response or otherwise in relation to that objective, • The policy of the Government on climate change, • Climate justice, • Any existing obligation of the State under the law of the European Union or any international agreement referred to in section 2; and • The most recent national greenhouse gas emissions inventory and projection of future greenhouse gas emissions, prepared by the Agency.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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Climate Action Plan 2023	The Climate Action Plan 2023 provides a detailed plan for taking decisive action to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and setting Ireland on a path to reach net-zero emissions by no later than 2050, as committed to in the Programme for Government and set out in the Climate Act 2021.	The Plan lists the actions needed to deliver on our climate targets and sets indicative ranges of emissions reductions for each sector of the economy. It will be updated annually, to ensure alignment with Ireland's legally binding economy-wide carbon budgets and sectoral ceilings	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Ireland's Second National Implementation Plan for the Sustainable Development Goals (2022 - 2024)	• National Implementation Plan 2022 - 2024 is in direct response to the 2030 Agenda for Sustainable Development and provides a whole-of-government approach to implement the 17 Sustainable Development Goals (SDGs). • The first version of the Plan (2018 – 2020) provided a 'SDG Matrix' which identifies the responsible Government Departments for each of the 169 targets. It also included a 'SDG Policy Map' indicating the relevant national policies for each of the targets.	The Plan identifies five strategic objectives to guide implementation: • To embed the SDG framework into the work of Government Departments to achieve greater Policy Coherence for Sustainable Development; • To integrate the SDGs into Local Authority work to better support the localisation of the SDGs; • Greater partnerships for the Goals; • To further incorporate the principle of Leave No One Behind into Ireland's Agenda 2030 implementation and reporting mechanisms; and • Strong reporting mechanisms	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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Clean Air Strategy for Ireland (2023)	The Clean Air Strategy provides the strategic policy framework necessary to identify and promote integrated measures across government policy that are required to reduce air pollution and promote cleaner air while delivering on wider national objectives.	• Through this document Ireland can develop the necessary policies and measures to comply with new and emerging EU legislation. • The Strategy should also help tackle climate change. • The Strategy considers a wider range of national policies that are relevant to clean air policy such as transport, energy, home heating and agriculture. • In any discussion relating to clean air policy, the issue of people's health is paramount, this is a strong theme of the Strategy.	Implementation of the Guidelines need to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EirGrid 's Grid25 Strategy and associated Grid25 Implementation Programme 2017 - 2022	• EirGrid 's mission is to develop, maintain and operate a safe, secure, reliable, economical and efficient transmission system for Ireland. • "Our vision is of a grid developed to match future needs, so it can safely and reliably carry power all over the country to the major towns and cities and onwards to every home, farm and business where the electricity is consumed and so it can meet the needs of consumers and generators in a sustainable way."	Grid25, EirGrid 's roadmap to uprate the electricity transmission grid by 2025, continues to be implemented so as to increase the capacity of the grid, to satisfy future demand, and to help Ireland meet its target of 40 per cent of electricity from renewable energy by 2020.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
All Island Grid Study 2008	• The All Island Grid Study is the first comprehensive assessment of the ability of the electrical power system and, as part of that, the transmission network ("the grid") on the island of Ireland to absorb large amounts of electricity produced from renewable energy sources.	Key conclusions of the study: • The presented results indicate that the differences in cost between the highest cost and the lowest cost portfolios are low (7%), given the assumptions made and costs included in the Study. • All but the high coal-based portfolio lead to significant reductions of CO2 emissions compared to portfolio 1	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies

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	• The objective of this five-part study is to assess the technical feasibility and the relative costs and benefits associated with various scenarios for increased shares of electricity sourced from renewable energy in the all island power system.	• All but the high coal-based portfolio lead to reductions on the dependency of the all island system on fuel and electricity imports. • The limitations of the study may overstate the technical feasibility of the portfolios analysed and could impact the costs and benefits resulting. Further work is required to understand the extent of such impact. • Timely development of the transmission networks, requiring means to address the planning challenge, is a precondition for implementation of the portfolios considered. • Market mechanisms must facilitate the installation of complementary, i.e. flexible, dispatchable plant, so as to maintain adequate levels of system security.	and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Strategy for the Future Development of National and Regional Greenways (2018)	• The objective of this Strategy is to assist in the strategic development of nationally and regionally significant Greenways in appropriate locations constructed to an appropriate standard in order to deliver a quality experience for all Greenways users. • It also aims to increase the number and geographical spread of Greenways of scale and quality around the country over the next 10 years with a consequent significant increase in the number of people using Greenways as a visitor experience and as a recreational amenity.	• A Strategic Greenway network of national and regional routes, with a number of high capacity flagship routes that can be extended and/or link with local Greenways and other cycling and walking infrastructure; • Greenways of scale and appropriate standard that have significant potential to deliver an increase in activity tourism • to Ireland and are regularly used by overseas visitors, • domestic visitors and locals thereby contributing to a healthier society through increased physical activity; • Greenways that provide a substantially segregated offroad experience linking places of interest, recreation and leisure in areas with beautiful scenery of different types with plenty to see and do;	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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		• Greenways that provide opportunities for the development of local businesses and economies, and • Greenways that are developed with all relevant stakeholders in line with an agreed code of practice.	
National Water Resources Plan (2021)	• The NWRP is a plan on how to provide a safe, secure and reliable water supply to customers for the next 25 years, without causing adverse impact on the environment. • The objective of the NWRP is to set out how we intend to maintain the supply and demand for drinking water over the short, medium and long term whilst minimising the impact on the environment.	The key objectives of the plan are to: • Identify areas where there are current and future potential water supply shortfalls, taking into account normal and extreme weather conditions • Assess the current and future water demand from homes, businesses, farms, and industry • Consider the impacts of climate change on Ireland's water resources • Develop a drought plan advising measures to be taken before and during drought events • Develop a plan detailing how we deal with the material that is produced as a result of treating drinking water • Identify, develop and assess options to help meet potential shortfalls in water supplies • Assess the water resources available at a national level including lakes, rivers and groundwater	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Draft National Strategic Plan for Aquaculture Development 2030 [Awaiting publication]	This multi-annual National Strategic Plan Sustainable Aquaculture Development (2022 – 2030) (NSPSA) overlaps with the EU's new 'Strategic guidelines for a more sustainable and competitive EU aquaculture for the period 2021 to 2030', as well as the programming period (2021 to 2027) of the European Maritime Fisheries and Aquaculture Fund (EMFAF). As such, this plan provides the strategic vision and	• Develop 'Designated Marine Area Plans' (DMAPs) for aquaculture to ensure that the sector is championed in Ireland's Marine Spatial Plan to facilitate investment in different forms of sustainable aquaculture. • More vigilant and responsive monitoring if aquatic diseases and food safety risks.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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	framework for funding under EMFAF, as well as other EU and national initiatives.	• Develop a comprehensive human capacity plan for Irish aquaculture to promote the sector as an attractive career option, develop leadership, management and business capacity in the sector and provide the necessary skills required over the strategy time period. • Provide coordinated messaging on the sustainable, low carbon nature of Irish aquaculture production, supported by independent certification and open dialogue.	
Construction 2020, A Strategy for a Renewed Construction Sector	• Construction 2020 sets out a package of measures agreed by the Government and is aimed at stimulating activity in the building industry. • The Strategy aims both to increase the capacity of the sector to create and maintain jobs, and to deliver a sustainable sector, operating at an appropriate level. It seeks to learn the lessons of the past and to ensure that the right structures and mechanisms are in place so that they are not repeated.	This Strategy therefore addresses issues including: • A strategic approach to the provision of housing, based on real and measured needs, with mechanisms in place to detect and act when things are going wrong; • Continuing improvement of the planning process, striking the right balance between current and future requirements; • The availability of financing for viable and worthwhile projects; • Access to mortgage finance on reasonable and sustainable terms; • Ensuring we have the tools we need to monitor and regulate the sector in a way that underpins public confidence and worker safety; • Ensuring a fit for purpose sector supported by a highly skilled workforce achieving high quality and standards; and • Ensuring opportunities are provided to unemployed former construction workers to contribute to the recovery of the sector.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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National Landscape Strategy for Ireland 2015-2025 and **National Landscape Character Assessment (pending preparation)**	• The National Landscape Strategy will be used to ensure compliance with the European Landscape Convention and to establish principles for protecting and enhancing the landscape while positively managing its change. It will provide a high level policy framework to achieve balance between the protection, management and planning of the landscape by way of supporting actions. • Landscape Strategy Vision: "Our landscape reflects and embodies our cultural values and our shared natural heritage and contributes to the well-being of our society, environment and economy. We have an obligation to ourselves and to future generations to promote its sustainable protection, management and planning."	The objectives of the National Landscape Strategy are to: • Implement the European Landscape Convention by integrating landscape into the approach to sustainable development; • Establish and embed a public process of gathering, sharing and interpreting scientific, technical and cultural information in order to carry out evidence-based identification and description of the character, resources and processes of the landscape; • Provide a policy framework, which will put in place measures at national, sectoral - including agriculture, tourism, energy, transport and marine - and local level, together with civil society, to protect, manage and properly plan through high quality design for the sustainable stewardship of the landscape; • Ensure that we take advantage of opportunities to implement policies relating to landscape use that are complementary and mutually reinforcing and that conflicting policy objectives are avoided in as far as possible.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Hazardous Waste Management Plan (EPA) 2021 - 2027	This Plan sets out the priorities to be pursued over the next six years and beyond to improve the management of hazardous waste, taking into account the progress made since the previous plan and the waste policy and legislative changes that have occurred since the previous plan was published. Section 26 of the Waste Management Act 1996 as amended, sets out the overarching objectives for the National Hazardous Waste Management	The revised Plan makes 20 recommendations under the following topics: • Policy and Regulation • Prevention • Collection and Treatment • Implementation	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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	Plan. In this context, the following objectives are included as priorities for the revised Plan period: • To prevent and reduce the generation of hazardous waste by industry and society generally; • To maximise the collection of hazardous waste with a • view to reducing the environmental and health impacts of any unregulated waste; • To strive for increased self-sufficiency in the management of hazardous waste and to minimise hazardous waste export; • To minimise the environmental, health, social and economic impacts of hazardous waste generation and management.		
National Ports Policy 2013	The core objective of National Ports Policy is to facilitate a competitive and effective market for maritime transport services.	National Ports Policy introduces clear categorisation of the ports sector into Ports of National Significance (Tier 1), Ports of National Significance (Tier 2) and Ports of Regional Significance.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Aviation Policy 2015	Specifically, the principal goals of this National Aviation Policy are: • To enhance Ireland's connectivity by ensuring safe, secure and competitive access responsive to the needs of business, tourism and consumers;	The National Aviation Policy commits to: • Maintaining safety as the number one priority in Irish aviation and ensuring that safety regulation is robust, effective and efficient;	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of

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	• To foster the growth of aviation enterprise in Ireland to support job creation and position Ireland as a recognised global leader in aviation; and • To maximise the contribution of the aviation sector to Ireland's economic growth and development.	• Creating conditions to encourage the development of new routes and services, particularly to new and emerging markets; • Ensuring a high level of competition among airlines operating in the Irish market; • Optimising the operation of the Irish airport network to ensure maximum connectivity to the rest of the world; • Ensuring that the regulatory framework for aviation reflects best international practice and that economic regulation facilitates continued investment in aviation infrastructure at Irish airports to support traffic growth; • Supporting the aircraft leasing and aviation finance sectors to maintain Ireland's leading global position in these spheres; and • Maintaining a safe and innovative general aviation sector to support Ireland's broader aviation industry	the objectives of the regulatory framework for environmental protection and management.
Ministerial Guidelines such as Sustainable Rural Housing Guidelines and Flood Risk Management Guidelines	The Department produces a range of guidelines designed to help planning authorities, An Bord Pleanála, developers and the general public and cover a wide range of issues amongst others, architectural heritage, child care facilities, landscape, quarries and residential density.	The Minister issues statutory guidelines under Section 28 of the Act which planning authorities and An Bord Pleanála are obliged to have regard to in the performance of their planning functions.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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HSE Healthy Ireland Framework for Improved Health and Wellbeing 2013-2025	The vision is: "A Healthy Ireland, where everyone can enjoy physical and mental health and wellbeing to their full potential, where wellbeing is valued and supported at every level of society and is everyone's responsibility."	These four goals are interlinked, interdependent and mutually supportive: • Goal 1: Increase the proportion of people who are healthy at all stages of life • Goal 2: Reduce health inequalities • Goal 3: Protect the public from threats to health and wellbeing • Goal 4: Create an environment where every individual and sector of society can play their part in achieving a healthy Ireland	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Marine Planning Framework 2021	The NMPF is a key consideration for decision makers on all marine authorisations. The NMPF creates the overarching framework for decision making that is consistent, evidence based, and secures a sustainable future for the maritime area.	The National Marine Planning Framework is a succinct strategic document that will deal with, inter alia, the following environmental, social and economic issues: • Key marine activities such as fisheries, tourism, transport, offshore renewable energy generation, oil and gas exploration and production, aquaculture, and how they interact; • Climate change and related impacts; • Communities and health; • Cultural heritage; • Marine environment and biodiversity; • Transboundary interactions with other jurisdictions.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Tourism Action Plan 2019 - 2021	Includes a total of 27 actions to be addressed in the period between now and 2018 aimed at securing continued growth in overseas tourism revenue and employment.	23 actions address a range of key issues, including the marketing of Ireland as a visitor destination overseas, visitor access to and within Ireland, the effective presentation of Irish culture, sport, and events to visitors, the role of Local Authorities in supporting tourism, visitor accommodation capacity, and skills development in the tourism sector. The actions are directed at specific	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory

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		tourism stakeholders in the public and private sectors, all of whom are expected to proactively work towards completion of each action within the specified timeframe.	framework for environmental protection and management.
Tourism Policy Statement: People, Place and Policy – Growing Tourism to 2025	The main goal of this policy statement is to have a vibrant, attractive tourism sector that makes a significant contribution to employment across the country; is economically, socially and environmentally sustainable; helps promote a positive image of Ireland overseas, and is a sector in which people want to work.	The Tourism Policy Statement sets three headline targets to be achieved by 2025: • Overseas tourism revenue of €5 billion per year • net of inflation excluding carrier receipts; • 250,000 people employed in tourism; and • 10 million overseas visitors to Ireland per year.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Tourism 2020: Tourism Strategy for Northern Ireland to 2020	• Northern Irelands Tourism Strategy until 2020 • Vision is to "Create the new Northern Ireland experience and get it on everyone's destination wish list" • Details an Action Plan to achieving targets for People, Products and Places, Promotion and Partnership	Sets targets for: • Increasing visitor numbers • Increasing tourism earnings • Accelerating visitor spend • Targeting specific markets and segments • Supporting indigenous high quality businesses • Being visitor inspired Plan provides for development of at least 22 key sites on Causeway Coastal Route	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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Our Sustainable Future: A framework for Sustainable Development for Ireland 2012	A medium to long term framework for advancing sustainable development and the green economy in Ireland. It identifies spatial planning as a key challenge for sustainable development and sets a series of measures to address these challenges.	Sets out the challenges facing us and how we might address them in making sure that quality of life and general wellbeing can be improved and sustained in the decades to come.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Investment Framework for Transport in Ireland (NIFTI) 2021	• NIFTI is the Department of Transport's framework for prioritising future investment in the land transport network to support the delivery of the National Strategic Outcomes. • The NIFTI will guide transport investment in the years ahead to enable the National Planning Framework, support the Climate Action Plan, and promote social, environmental and economic outcomes throughout Ireland.	The four investment priorities stated in NIFTI are: • Mobility of people and goods in urban areas. • Protection and renewal. • Enhanced regional and rural connectivity. • Decarbonisation.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Adaptation Framework (NAF) 2018 and associated regional, local and sectoral adaptation plans (including transport)	NAF specifies the national strategy for the application of adaptation measures in different sectors and by local authorities in their administrative areas in order to reduce the vulnerability of the State to the negative effects of climate change and to avail of any positive effects that may occur	• Adaptation under this Framework should seek to minimise costs and maximise the opportunities arising from climate change. • Adaptation actions range from building adaptive capacity (e.g. increasing awareness, sharing information and targeted training) through to policy and finance based actions. • Adaptation actions must be risk based, informed by existing vulnerabilities of our society and systems and an understanding of projected climate change.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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		• Adaptation actions taken to increase climate resilience must also consider impacts on other sectors and levels of governance	
Governments White Paper 'Ireland's Transition to a Low Carbon Energy Future' (2015 – 2030)	The White Paper sets out a vision and a framework to guide Irish energy policy between now and 2030. A complete energy policy update informed by the vision to transform Ireland into a low carbon society and economy by 2050.	2030 will represent a significant milestone, meaning: • Reduced GHG emissions from the energy sector by between 80% and 95% • Ensuring that secure supplies of competitive and affordable energy remain available to citizens and businesses.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Wildlife Act of 1976 **Wildlife (Amendment) Act, 2000**	The act provides protection and conservation of wild flora and fauna.	• Provides protection for certain species, their habitats and important ecosystems • Give statutory protection to NHAs • Enhances wildlife species and their habitats • Includes more species for protection	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Actions for Biodiversity (2017-2021) Ireland's National Biodiversity Plan	Sets out strategic objectives, targets and actions to conserve and restore Ireland's biodiversity and to prevent and reduce the loss of biodiversity in Ireland and globally.	• To mainstream biodiversity in the decision-making process across all sectors. • To substantially strengthen the knowledge base for conservation, management and sustainable use of biodiversity. • To increase awareness and appreciation of biodiversity and ecosystems services.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
		• To conserve and restore biodiversity and ecosystem services in the wider countryside. • To conserve and restore biodiversity and ecosystem services in the marine environment. • To expand and improve on the management of protected areas and legally protected species. • To substantially strengthen the effectiveness of international governance for biodiversity and ecosystem services.	
National Broadband Plan (2012)	Sets out the strategy to deliver high speed broadband throughout Ireland.	The Plan sets out: • A clear statement of Government policy on the delivery of High Speed Broadband. • Specific targets for the delivery and rollout of high speed broadband and the speeds to be delivered. • The strategy and interventions that will underpin the successful implementation of these targets. • A series of specific complementary measures to promote implementation of Government policy in this area.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
The Planning System and Flood Risk Management – Guidelines for Planning Authorities (2009)	• Sets out comprehensive mechanisms for the incorporation of flood risk identification, assessment and management into the planning process. • Ensures flood risk is a key consideration in preparing land use plans and in the assessment of planning applications. • Implementation of the Guidelines is through actions at national, regional, local authority and site-specific levels.	• Avoid inappropriate development in areas at risk of flooding. • Avoid new developments increasing flood risk elsewhere, including that which may arise from surface water run-off. • Ensure effective management of residual risks for development permitted in floodplains. • Avoid unnecessary restriction of national, regional or local economic and social growth.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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	• Planning authorities and An Bord Pleanála are required to have regard to the Guidelines in carrying out their functions under the Planning Acts.	• Improve the understanding of flood risk among relevant stakeholders. • Ensure that the requirements of EU and national law in relation to the natural environment and nature conservation • are complied with at all stages of flood risk management. The 2009 Flood Risk Management Guidelines were amended by Circular PL 2/2014 (Department of the Environment, Community and Local Government) that provides advice on the use of OPW flood mapping in assessing planning applications and clarifies some advice from the 2009 Guidelines.	
European Communities (Water Policy) Regulations of 2003 (SI 722 of 2003) **European Communities (Water Policy) Regulations of 2003 (SI 350 of 2014)** **European Communities**	• Transpose the Water Framework Directive into legislation. • Outlines the general duty of public authorities in relation to water. • Identifies the competent authorities in charge of water policy (amended to Irish Water in 2013) and gives EPA and the CER the authority to regulate and supervise their actions.	• Implements River basin districts and characterisation of RBDs and River Basin Management Plans. • Requires the public to be informed and consulted on the Plan and for progress reports to be published on RBDs. • Implements a Register of protected areas, Classification systems and Monitoring programmes for water bodies. • Allows the competent authority to recover the cost of damage/destruction of status of water body. • Outlines environmental objectives and programme of measures and environmental quality standards for priority substances. • Outlines criteria for assessment of groundwater.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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Environmental Objectives (Surface waters) Regulations of 2009 (SI 272 of 2009)(as amended)		• Outlines environmental objectives to be achieved for surface water bodies. • Outlines surface water quality standards. • Establishes threshold values for the classification and protection of surface waters against pollution and deterioration in quality.	
Local Government (Water Pollution) Acts 1977 to 1990	The Water Pollution Acts allow Local Authorities the authority regulate and supervise actions relating to water in their division.	The Water Pollution Acts enable local authorities to: • Prosecute for water pollution offences. • Attach appropriate pollution control conditions in the licensing of effluent discharges from industry, etc., made to waters. • Issue notices ("section 12 notices") to farmers, etc., specifying measures to be taken within a prescribed period to prevent water pollution. • issue notices requiring a person to cease the pollution of waters and requiring the mitigation or remedying of any effects of the pollution in the manner and within the period specified in such notices; • Seek court orders, including High Court injunctions, to prevent, terminate, mitigate or remedy pollution/its effects. • Prepare water quality management plans for any waters in or adjoining their functional areas.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Water Services Act 2007 **Water Services (Amendment) Act 2012**	• Provides the water services infrastructure. • Outlines the responsibilities involved in delivering and managing water services. • Identifies the authority in charge of provision of water and wastewater supply.	Key strategic objectives include: • Ensuring Irish Water delivers infrastructural projects that meet key public health, environmental and economic objectives in the water services sector. • Ensuring the provision of adequate water and sewerage services.	Implementation of the Guidelines need to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of

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Water Services Act (No. 2) 2013 **Water Services Act 2017**	• Irish Water was given the responsibility of the provision of water and wastewater services in the amendment act during 2013, therefore these services are no longer the responsibility of the 34 Local Authorities in Ireland.	• Ensuring good quality drinking water is available to all consumers of public and group water supplies, in compliance with national and EU drinking water standards • Ensuring the provision of the remaining infrastructure needed to provide secondary wastewater treatment, for compliance with the requirements of the EU Urban Wastewater Treatment Directive. • Promoting water conservation through Irish Water's Capital Investment Plan, the Rural Water Programme and other measures. • Monitoring the on-going implementation of septic tanks inspection regime and the National Inspection Plan for Domestic Waste Water Treatment Systems. • Ensuring a fair funding model to deliver water services. • Overseeing the establishment of an economic regulation function under the CER.	the objectives of the regulatory framework for environmental protection and management.
Irish Water's (now known as Uisce Eireann) Water Services Strategic Plan 2015 and associated Proposed Capital Investment Plan (2020 - 2024)	This Water Services Strategic Plan sets out strategic objectives for the delivery of water services over the next 25 years up to 2040. It details current and future challenges which affect the provision of water services and identifies the priorities to be tackled in the short and medium term.	Six strategic objectives as follows: • Meet Customer Expectations. • Ensure a Safe and Reliable Water Supply. • Provide Effective Management of Wastewater. • Protect and Enhance the Environment. • Support Social and Economic Growth. • Invest in the Future.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

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Raised Bog SAC Management Plan and Review of Raised Bog Natural Heritage Areas 2017 - 2022	Aims to meet nature conservation obligations while having regard to national and local economic, social and cultural needs	• Ensure that the implications of management choices for water levels, quantity and quality are fully explored, understood and factored into policy making and land use planning. • Review the current raised bog NHA network in terms of its contribution to the national conservation objective for raised bog habitats and determine the most suitable sites to replace the losses of active raised bog habitat and high bog areas within the SAC network and to enhance the national network of NHAs.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Food Harvest 2020	Food Harvest 2020 is a roadmap for the Irish food industry, as it seeks to innovate and expand in response to increased global demand for quality foods. It sets out a vision for the potential growth in agricultural output after the removal of milk quotas.	Seeks for the improvement of all agricultural sectors at all levels in terms of sustainability, environmental consideration and marketing development.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Agri-vision 2015 Action Plan	Outlines the vision for agricultural industry to improve competitiveness and response to market demand while respecting and enhancing the environment	Not applicable	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Rural Environmental Protection Scheme (REPS) **Agri-Environmental Options Scheme (AEOS)** **Green, Low-Carbon, Agri-environment Scheme (GLAS)**	• Agri-environmental funding schemes aimed at rural development for the environmental enhancement and protection. • GLAS is the new replacement for REPS and AEOS which are both expiring.	• Establish best practice farming methods and production methods in order to protect landscapes and maximise conservation. • Protect biodiversity, endangered species of flora and fauna and wildlife habitats. • Ensure food is produced with the highest regard to the environment. • Implement nutrient management plans and grassland management plans. • Protect and maintain water bodies, wetlands and cultural heritage.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Rural Development Programme	The National Rural Development Programme, prepared by the Department of Agriculture, Fisheries and Food, sets out a national programme based on the EU framework for rural development and prioritises improving the competitiveness of agriculture, improving the environment and improving the quality of life in rural areas	At a more detailed level, the programme also: • Supports structural change at farm level including training young farmers and encouraging early retirement, support for restructuring, development and innovation; • Aims to improve the environment, biodiversity and the amenity value of the countryside by support for land management through funds such as Natura 2000 payments etc.; and • Aims to improve quality of life in rural areas and encouraging diversification of economic activity through the implementation of local development strategies such as • non-agricultural activities	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Forestry Programme 2023 – 2027	The new Forestry Programme 2023-2027 came into force in 2023, as soon as State Aid approval by the European Commission has been received. The new Programme sets out increased support for a number of schemes.	The proposed Forestry Programme 2023-2027 contains a series of eight different interventions: • Forest creation; • Agroforestry; • Infrastructure and technology investments; • Sustainable forest management; • Developing skills and empowering the forest sector for sustainable forest management; • Open forests - social, cultural and heritage forests; • Climate resilient reforestation; • Reconstruction.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
River Basin Management Plan	River Basin Management Plans set out the measures planned to maintain and improve the status of waters.	• Aim to protect and enhance all water bodies in the RBD and meet the environmental objectives outlined in Article 4 of the Water Framework Directive. • Identify and manages water bodies in the RBD. • Establish a programme of measures for monitoring and improving water quality in the RBD. • Involve the public through consultations.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Peatlands Strategy (2015-2025)	This Strategy aims to provide a long-term framework within which all of the peatlands within the State can be managed responsibly in order to optimise their social, environmental and economic contribution to the well-being of this and future generations.	Objectives of the Strategy: • To give direction to Ireland's approach to peatland • management. • To apply to all peatlands, including peat soils. • To ensure that the relevant State authorities and state owned companies that influence such decisions contribute to meeting cross-cutting objectives and obligations in their policies and actions.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
		• To ensure that Ireland's peatlands are sustainably managed so that their benefits can be enjoyed responsible. • To inform appropriate regulatory systems to facilitate good decision making in support of responsible use. • To inform the provision of appropriate incentives, financial supports and disincentives where required. • To provide a framework for determining and ensuring the most appropriate future use of cutover and cutaway bogs. To ensure that specific actions necessary for the achievement of its objectives are clearly identified and delivered by those involved in or responsible for peatlands management or for decisions affecting their management.	
Flood Risk Management Plans arising from National Catchment Flood Risk Assessment and Management Programme	The national Catchment Flood Risk Assessment and Management (CFRAM) programme commenced in Ireland in 2011 and is being overseen by the Office of Public Works. The CFRAM Programme is intended to deliver on core components of the National Flood Policy, adopted in 2004, and on the requirements of the EU Floods Directive.	CFRAM Studies have been undertaken for all River Basin Districts. The studies are focusing on areas known to have experienced flooding in the past and areas that may be subject to flooding in the future either due to development pressures or climate change. Flood Risk and Hazard mapping, including Flood Extent Mapping, was finalised in 2017. The final outputs from the studies are the CFRAM Plans, finalised in 2018. The Plans define the current and future flood risk in the River Basin Districts and set out how this risk can be managed.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Draft National Bioenergy Plan 2014 - 2020	The Draft Bioenergy Plan sets out a vision as follows: • Bioenergy resources contributing to economic development and sustainable growth, generating jobs for citizens, supported by coherent policy, planning and regulation, and managed in an integrated manner.	Three high level goals, of equal importance, based on the concept of sustainable development are identified: • To harness the market opportunities presented by bioenergy in order to achieve economic development, growth and jobs. • To increase awareness of the value, opportunities and societal benefits of developing bioenergy. • To ensure that bioenergy developments do not adversely impact the environment and its living and non-living resources.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Draft Renewable Electricity Policy and Development Framework (DCCAE) 2016	Goal: To optimise the opportunities in Ireland for renewable electricity development on land at significant scale, to serve both the All Island Single Electricity Market and any future regional market within the European Union, in accordance with European and Irish law, including Directive 2018/2001: On the promotion of the use of energy from renewable resources.	Objective: To develop a Policy and Development Framework for renewable electricity generation on land to serve both the All Island Single Electricity Market and any future regional market within the European Union, with particular focus on large scale projects for indigenous renewable electricity generation. This will, inter alia, provide guidance for planning authorities and An Bord Pleanála.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Alternative Fuels Infrastructure for the Transport Sector (DTTAS) 2017- 2030	This Framework sets targets to achieve an appropriate level of alternative fuels infrastructure for transport, which is relative to national policy and Irish market needs. Non-infrastructure-based incentives to support the use of the infrastructure and the uptake of alternative fuels are also included within the scope of the Framework.	Targets for alternative fuel infrastructure include the following: • AFV forecasts • Electricity targets • Natural gas (CNG, LNG) targets • Hydrogen targets • Biofuels targets • LPG targets • Synthetic and paraffinic fuels targets	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Food Wise 2025 (DAFM)	Food Wise 2025 sets out a ten year plan for the agri-food sector. It underlines the sector's unique and special position within the Irish economy, and it illustrates the potential which exists for this sector to grow even further.	Food Wise 2025 identifies ambitious and challenging growth projections for the industry over the next ten years including: • 85% increase in exports to €19 billion. • 70% increase in value added to €13 billion. • 60% increase in primary production to €10 billion. • The creation of 23,000 additional jobs all along the supply chain from producer level to high end value added product development.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Strategic Planning Policy Statement (SPPS) NI	The SPPS consolidates some twenty separate policy publications into one document and sets out strategic subject planning policy for a wide range of planning matters. It also provides the core planning principles to underpin delivery of the two-tier planning system with the aim of furthering sustainable development.	The overall objective of the planning system is to further sustainable development and improve well-being for the people of the North.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Policy Framework For Alternative Fuels Infrastructure for Transport in Ireland 2017 to 2030	• This National Policy Framework on Alternative Fuels Infrastructure for Transport represents the first step in communicating our longer term national vision for decarbonising transport by 2050, the cornerstone of which is our ambition that by 2030 all new cars and vans sold in Ireland will be zero-emissions capable.	This policy set out to achieve five key goals in transport: • Reduce overall travel demand • Maximise the efficiency of the transport network • Reduce reliance on fossil fuels • Reduce transport emissions • Improve accessibility to transport These goals remain the cornerstone of transport policy and are fully aligned to the objectives of this National Policy Framework.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
	• By 2030 it is envisaged that the movement in Ireland to electrically-fuelled cars and commuter rail will be well underway, with natural gas and biofuels developing as major alternatives in the freight and bus sectors.		
Regional/ County/Local Level			
Regional Economic and Spatial Strategies	The Regional Spatial and Economic Strategies provide a long-term regional level strategic planning and economic framework in support of the implementation of the National Planning Framework.	The Eastern and Midland Regional Economic and Spatial Strategy includes provisions for its 12 constituent local authorities: Fingal County Council; Dublin City Council; South Dublin County Council; Dún Laoghaire-Rathdown County Council; Louth County Council; Kildare County Council; Meath County Council; Wicklow County Council; Longford County Council; Laois County Council; Offaly County Council; and Westmeath County Council. The Southern Regional Economic and Spatial Strategy includes provisions for its nine constituent local authorities: Waterford City and County Council, Cork City Council, Cork County Council, Tipperary County Council, Wexford County Council, Kerry County Council, Clare County Council, Limerick City and County Council, Kilkenny County Council and Carlow County Council. The Northern and Western Regional Spatial and Economic Strategy includes provisions for its eight constituent local authorities: Donegal County Council, Leitrim County Council, Sligo County Council, Cavan County Council, Monaghan County Council, Mayo County Council, Roscommon County Council, and Galway County Council.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Regional Development Strategy 2035 (Northern Ireland)	• Spatial strategy for the future development of Northern Ireland. • Strategic planning framework to facilitate and guide public and private sectors.	Aims to provide long-term policy direction with a strategic spatial perspective.	Implementation of the Guidelines need to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Greater Dublin Area (GDA) Transport Strategy (2022-2042)	It sets out how transport will be developed across the region, covering Dublin, Meath, Wicklow and Kildare, over the period of the strategy and has been approved by the Minister for Transport, Tourism and Sport in accordance with the relevant legislation.	They set out a number of core principles deriving from the strategic vision, which are: • Dublin as the capital city of Ireland and a major European centre shall grow and progress, competing with other cities in the EU, and serving a wide range of international, national, regional and local needs. • The Dublin and Mid-East Regions will be attractive, vibrant locations for industry, commerce, recreation and tourism and will be a major focus for economic growth within the Country. • The GDA, through its ports and airport connections will continue to be the most important entry/exit point for the country as a whole, and as a Gateway between the European Union and the rest of the World. Access to and through the GDA will continue to be a matter of national importance. • Development in the GDA shall be directly related to investment in integrated high quality public transport services and focused on compact urban form.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
		• Development within the existing urban footprint of the Metropolitan Area will be consolidated to achieve a more compact urban form. • Development in the Hinterland Area will be focused on the high quality integrated growth and consolidation of development in key identified towns, separated from each other by extensive areas of strategic green belt land devoted to agriculture and similar uses.	
Transport Strategy for the Cork Metropolitan Area 2040	The Strategy addresses all transport modes and its objective will be to provide a long-term strategic planning framework for the integrated development of transport infrastructure and services in the Cork Metropolitan Area, over the next two decades	It will be used to inform transport investment levels and investment prioritisation over both the longer and shorter terms and will be able to inform sustainable integrated land use and transport policy formulation at the strategic (Metropolitan Area) level and at the local level.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Greater Dublin Area Cycle Network Plan	• Sets out a ten year cycling strategy for Counties Dublin, Kildare, Meath and Wicklow • Plan to increase regions cycle network dramatically • The Plan refers to the EuroVelo International Cycle Route Network of the European Cyclists Federation is a network of 15 long distance cycle routes connecting and uniting the whole European continent. Two of these routes are in Ireland • including EV2 from Galway through Dublin to London, Berlin, Warsaw and Moscow.	Aims to identify and determine: • The Urban Cycle Network at the Primary, Secondary and Feeder level • The Inter-Urban Cycle Network linking the relevant sections of the Urban Network including the elements of the National Cycle Network within the Greater Dublin Area including linkages to key transport locations outside of urban areas such as airports and ports • The Green Route Network being cycle routes for development of tourist, recreational and leisure purposes.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Dublin to Galway Greenway Plan	• Develop a segregated cycling and walking trail to international standards, extending from Dublin City to Galway which is of a scale that will allow Ireland to harness the potential of an identified growing tourism market for cycling. • This route forms part of an interconnected National Cycle Network of high quality, traffic free, inter urban routes, which will establish Ireland as a quality international tourism destination for a broad range of associated recreational activities and pursuits.	To provide a segregated, substantially off road cycle route from Dublin City to Clifden via Galway City, maximising the use of – where feasible – existing and approved routes and disused railway line corridors and to also use existing plans and/or permitted projects where these have been subject to a consent process that has previously included the carrying out or screening for SEA, EIA and AA.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Regional Development Strategy 2035 (Northern Ireland)	• Spatial strategy for the future development of Northern Ireland. • Strategic planning framework to facilitate and guide public and private sectors.	Aims to provide long-term policy direction with a strategic spatial perspective.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Water Quality Management Plans	• Ensure that the quality of waters covered by the plan is maintained. • Maintain and improve the quantity and quality of water included in the Plan scope.	• Monitoring of water bodies against quality standards. • Outlines management programmes for water catchments. • Purpose is to maintain and improve the quantity and quality of groundwater.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Port Masterplans (such as Dublin Port Masterplan 2040 and 2017 Review)	• The Masterplan sets out a vision for the operations of the port and land utilisation. • The Masterplan is a non-statutory plan which has nonetheless been framed within the context of EU, national, regional and local development plan policies.	Not applicable	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
NPWS Conservation Plans and/or Conservation Objectives for SACs and SPAs	Management planning for nature conservation sites has a number of aims. These include: • To identify and evaluate the features of interest for a site • To set clear objectives for the conservation of the features of interest • To describe the site and its management • To identify issues (both positive and negative) that might influence the site • To set out appropriate strategies/management actions to achieve the objectives	• Conservation objectives for SACs and SPAs (i.e. sites within the Natura 2000 network) have to be set for the habitats and species for which the sites are selected. • These objectives are used when carrying out appropriate assessments for plans and projects that might impact on these sites.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Groundwater Protection Schemes	A Groundwater Protection Scheme provides guidelines for the planning and licensing authorities in carrying out their functions, and a framework to assist in decision-making on the location, nature and control of developments and activities in order to protect groundwater.	A Groundwater Protection Scheme aims to maintain the quantity and quality of groundwater, and in some cases improve it, by applying a risk assessment-based approach to groundwater protection and sustainable development.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Local Economic and Community Plans (LECP)	The overarching vision for each LECP is: "to promote the well-being and quality of life of citizens and communities"	The purpose of the LECP, as provided for in the Local Government Reform Act 2014, is to set out, for a six-year period, the objectives and actions needed to promote and support the economic development and the local and community development of the relevant local authority area, both by itself directly and in partnership with other economic and community development stakeholders.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Development Plans, Local Area Plans, Planning Schemes	• Outlines planning objectives for land use development (including transport objectives). • Strategic framework for planning and sustainable development including those set out in National Planning Framework and Regional Economic and Spatial Strategies. • Sets out the policies and proposals to guide development in the specific Local Authority area.	• Identifies future infrastructure, development and zoning required. • Protects and enhances amenities and environment. • Guides planning authority in assessing proposals. • Aims to guide development in the area and the amount of nature of the planned development. • Aims to promote sustainable development. • Provide for economic development and protect natural environmental, heritage.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Green Infrastructure Plans/Strategies	• Promotes the maintenance and improvement of green infrastructure in an area. • Aims to protect and enhance biodiversity and habitats.	Not applicable	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Biodiversity Action Plans	Aims to protect, conserve, enhance and restore biodiversity and ecosystem services across all spectrums.	• Outlines the status of biodiversity and identifies species of importance. • Outlines objectives and targets to be met to maintain and improve biodiversity. • Aims to increase awareness.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Heritage Plans	Aims to highlight the importance of heritage at a strategic level.	• Manage and promote heritage as well as increase awareness. • Aim to conserve and protect heritage.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
County Landscape Character Assessments	Characterises the geographical dimension of the landscape.	• Identifies the quality, value, sensitivity and capacity of the landscape area. • Guides strategies and guidelines for the future development of the landscape.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Freshwater Pearl Mussel Sub- Basin Management Plans	• Identifies the current status of the species and the reason for loss or decline. • Identifies measure required to improve or restore current status.	• Identifies pressures on Freshwater Pearl Mussels for each of the designated populations in Ireland. • Outlines restoration measures required to ensure favourable conservation status.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Local Catchment Flood Risk Management Plans	• Produced by Local Authorities. • Outlines areas local flood risk. • Sets out measures to manage and prevent flood risk at a local level.	Not applicable	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Shellfish Pollution Reduction Programmes	Aims to improve water quality and ensure the protection or improvement of designated shellfish waters in order to support shellfish life and growth and contribute to the high quality of shellfish products directly edible by man.	• Identifies key and secondary pressures on water quality in designated shellfish areas. • Outlines specific measures to address identified key and secondary pressures on water quality. • Addresses the specific pressures acting on water quality in each area.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Regional Waste Management Plans	These plans (for the Connacht-Ulster, Southern, and Eastern-Midlands regions) give effect to national and EU waste policy, and address waste prevention and management (including generation, collection and treatment) over the period 2015-2021.	To manage wastes in a safe and compliant manner, a clear strategy, policies and actions are required.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Draft Climate Change Action Plans 2019 - 2024	Dublin's four local authorities have joined together to develop Climate Change Action Plans as a collaborative response to the impact that climate change is having, and will continue to have, on the Dublin Region and its citizens. While each plan is unique to its functional area, they are unified in their approach to climate change adaptation and mitigation, and their commitment to lead by example in tackling this global issue.	The Climate Change Action Plan features a range of actions across five key areas - Energy and Buildings, Transport, Flood Resilience, Nature-Based Solutions and Resource Management - that collectively address the four targets of this plan: • A 33% improvement in the Council's energy efficiency by 2020 • A 40% reduction in the Council's greenhouse gas emissions by 2030 • To make Dublin a climate resilient region, by reducing the impacts of future climate change - related events • To actively engage and inform citizens on climate change	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Noise Action Plans	The Noise Action Plans are prepared in accordance with the requirements of the Environmental Noise Regulations 2006, Statutory Instrument 140 of 2006. These Regulations give effect to the EU Directive 2002/49/EC relating to the assessment and management of environmental noise. This Directive sets out a process for managing environmental noise in a consistent manner across the EU and the Noise Regulations set out the approach to meeting the requirements of the Directive in Ireland.	The main purpose of the Noise Action Plan is to: • Inform and consult the public about noise exposure, its effects and the measures which may be considered to address noise problems • Address strategic noise issues by requiring competent authorities to draw up action plans to manage noise issues and their effects • Reduce noise, where possible, and maintain the environmental acoustic quality where it is good	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection.

Relevant EU and National Legislation

Legislation[19]	Context
European & National regulations that are relevant to planning the transmission network: • Directive 2009/72/EC concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC; • Directive 2009/ 72/ EC; • Directive 2009/ 28/ EC; • Directive 2012/ 27/ EC; • Statutory Instrument (SI) No. 445 of 2000 as amended; and • Statutory Instrument (SI) No. 147 of 2011.	European regulations, relevant to planning the transmission network.
SEA Directive 2001/42/EC: • European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No. 435 of 2004) as amended; and • European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (S.I. No. 200 of 2011) as amended.	EU Directive 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment (the SEA Directive) established the requirement for SEA as part of high-level decision-making process and the development of plans and programmes.
Energy Efficiency Directive (EU) 2023/1791	The new directive introduces a series of measures to help accelerate energy efficiency, including embracing the "energy efficiency first" principle in the energy and non-energy policies.
Renewable Energy Directive EU/2018/2001	REDII sets an overall European renewable energy target of 32% by 2030 and includes rules to ensure the uptake of renewables in the transport sector and in heating and cooling. The directive sets common principles and rules for renewable energy support schemes, sustainability criteria for biomass and the right to produce and consume renewable energy and to establish renewable energy communities. It also establishes rules to remove barriers, stimulate investments and drive cost reductions in renewable energy technologies and empowers citizens and businesses to participate in the clean energy transformation.
Water Framework Directive (2000/60/EC): • Env. Quality Standards Directive 2008/105/EC; • The Water Policy Regulations (S.I. No. 722 of 2003); • The Surface Waters Regulations (S.I. No. 272 of 2009) (as amended(; and • The Groundwater Regulations (S.I. No. 9 of 2010)(as amended.	The EU Water Framework Directive requires all Member States to protect and improve water quality in all waters so that we achieve good ecological status by 2015 or, at the latest, by 2027. It applies to rivers, lakes, groundwater, and transitional coastal waters. The Directive requires that management plans be prepared on a river basin basis and specifies a structured method for developing these plans.
Birds Directive (2009/147/EC) and Habitats Directive (92/43/EEC): • European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011); and	The EU Birds Directive requires all EU Member States to take measures to protect all wild birds and their habitats. The Birds Directive aims to protect all of the 500 wild bird species naturally occurring in the European Union.

Legislation[19]	Context
• European Communities (Birds and Natural Habitats) (Amendment) Regulations 2015 (S.I. No. 355 of 2015).	The EU Habitats Directive requires all EU Member States to ensure the conservation of a wide range of rare, threatened or endemic animal and plant species. Within this Directive, some 200 rare and characteristic habitat types are also targeted for conservation in their own right.
Marine Strategy Framework Directive (2008/56/EC): • European Communities (Marine Strategy Framework) Regulations (S.I. No. 249 of 2011).	The EU Marine Strategy Framework Directive (Marine Directive) requires all EU Member States to take measures to protect more effectively the marine environment across Europe. The Marine Directive aims to achieve 'Good Environmental Status, (GES)' of the EU's marine waters by 2020 and to protect the resource base upon which marine-related economic and social activities depend.
Maritime Spatial Planning Directive (2014/89/EU)	The EU Spatial Planning Directive requires member states to work across borders and sectors to ensure that any human activities at sea are carried out in an efficient, safe and sustainable manner. In Ireland, a roadmap to the development of Ireland's first marine spatial plan, towards a Marine Spatial Plan for Ireland' was published in December 2017. It Is expected that the final plan will be prepared for submission to the Government.
Environmental Impact Assessment Directive (2014/52/EU): • Not yet transposed as Irish National Legislation, expected before 2017.	The EU EIA Directive (2014/52/EU) amends the previous EIA Directive (2011/92/EU) on the assessment of the effects of certain public and private projects on the environment. It introduced changes in EIA requirements across the EU such as the introduction of mandatory 'Competent Experts', changes to screening procedures, and mandatory post-EIA monitoring. This Directive was expected to be enforced in Ireland by May 2017 but came into effect in September 2018.
2020 Climate and Energy Package and associated legislation	This package is comprised of a set of binding legislation to ensure the EU meets its climate and energy targets for the year 2020.The package sets three key targets as follows: • 20% cut in greenhouse gas emissions (from 1990 levels); • 20% of EU energy from renewables; and • 20% improvement in energy efficiency.
The Climate Action and Low Carbon Development Act (as amended)	The Climate Action and Low Carbon Development Act (as amended), provides for the making of five-yearly National Mitigation Plans to specify the policy measures to reduce greenhouse gas emissions and a National Adaptation Framework to specify the national strategy for the application of adaptation measures in different sectors and by Local Authorities to reduce the vulnerability of the State to the negative effects of climate change.
Flood Directive (2007/60/EC): • European Communities (Assessment and Management of Flood Risks) Regulations 2010. (S.I. No. 122 of 2010).	The EU 'Floods Directive' requires all EU Member States to assess if all water courses and coast lines are at risk from flooding, to map the flood extent and assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk.

Legislation[19]	Context
Non-exhaustive list of Planning related legislation: • Planning and Development Act 2000; • Planning and Development (Strategic Infrastructure) Act 2006; and • Planning & Development Regulations 2001-2023.	Irish Planning related legislation that is relevant to planning the transmission network.
Non-exhaustive list of Cultural Heritage related legislation: • National Monuments Act 1930 as amended; • Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999; and • The Heritage Act 2018.	Irish Cultural Heritage regulations that are relevant to the planning the transmission network.
Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive (2008/50/EC): • S.I. No. 739/2022 - Ambient Air Quality Standards Regulations 2022	Set down air quality standards in Ireland for a wide variety of pollutants.
Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) • Environmental Protection Agency Act 1992, amended by the Protection of the Environment Act 2003; and • Environmental Protection Agency (Integrated Pollution Control) (Licensing) Regulations 2013. • European Union (Environmental Impact Assessment)(Environmental Protection Agency Act 1992)(Amendment) Regulations 2020 • Environmental Protection Agency (Industrial Emissions)(Licensing) (Amendment) Regulations 2020. • European Union (Industrial Emissions) Regulations 2013 • Environmental Protection Agency (Industrial Emissions)(Licensing)Regulations 2013. • Environmental Protection Agency (Licensing Fees) Regulations 2013	Regulates the licencing of industrial sites, including energy production.
Noise Directive (2002/49/EC): • Environmental Noise Regulations 2006 (S.I. No. 140 of 2006).	EU and Irish environmental noise related legislation.

Relevant Plans and Programmes

Scale	Plan or Programme	Context
International / EU	The Kyoto Protocol	• First international agreement in which many of the world's industrial nations concluded a verifiable agreement to reduce their emissions of six greenhouse gases in order to prevent global warming.
	EU Biodiversity Strategy	• The EU Strategy aims to halt the loss of biodiversity and ecosystem services in the EU and help stop global biodiversity loss by 2020. It reflects the commitments taken by the EU in 2010, within the international Convention on Biological Diversity.
	UK Marine Policy Statement	• This Statement is the framework for preparing marine plans and taking decisions affecting the marine environment and was jointly adopted across the UK Administrations including the Department of the Environment in Northern Ireland.
National	National Planning Framework (NPF): Ireland 2040: Our Plan	• 20-year strategy identifying strategic development requirements, infrastructure requirements and promoting sustainable strategies for the future.
	National Development Plan 2021-2030	• Sets out the investment priorities that will underpin the successful implementation of the National Planning Framework.
	Capital Investment Plan 2016 – 2021	• Framework for investment in infrastructure in Ireland 2016-2021.
	Framework for Sustainable Development in Ireland (2012)	• Outlines Ireland's Framework for Sustainable Development. Its timeframe is to 2020 to tie in with other national and international frameworks, but a longer-term horizon to 2050 is also considered where appropriate, to provide a framework for guiding and reporting on long-term broad development trends such as on climate change.
	National Adaptation Framework (NAF) (2018)	• Provides the policy context for a strategic national adaptation response to climate change in Ireland and is designed to evolve over time as planning and implementation progresses, and as further evidence becomes available.
	Renewable Electricity Policy and Development Framework (DCCAE, ongoing).	• The aim of this framework is to guide the development of renewable electricity projects.
	Wind Farm Development Guidelines 2006 (currently under review)	• Outline the guidelines to planning authorities on planning for wind energy through the development plan process and in determining planning permission.
	Offshore Renewable Energy Development Plan (OREDP) including interim review	• Describes the policy context for the development of offshore wind, wave and tidal energy in Irish waters.
	Water Service Strategic Plan (WSSP)	• Provides strategic objectives for the delivery of water services up until 2040.
	A National Landscape Strategy (NLS) for Ireland	• Mapping out paths toward sustainable development and management of national-human and natural-resources. This includes the Future National Landscape Character Assessment.
	National Biodiversity Plan (NBP)	• Actions to raise awareness about the link between plans/programmes and biodiversity impacts.

Scale	Plan or Programme	Context
	National Heritage Plan (published in 2002)	• Outlines stipulations for proper planning, conservation and management of national heritage for all plans/programmes.
	The Irish Geological Heritage Programme 1998 - ongoing	• Promotes awareness and protection of significant geological heritage sites.
	Government Policy Statement on Strategic Importance of Transmission and Other Energy Infrastructure 2012	• Endorses the major investment underway in the high voltage electricity transmission system under EirGrid 's Grid25 Programme.
	National Policy Framework on Alternative Fuels Infrastructure for Transport (AFF)	• Sets an ambitious target that by 2030 all new cars and vans sold in Ireland will be zero emissions (or zero emissions capable) with the use of fossil fuels vehicles rapidly receding.
	Ireland and the Climate Change Challenge - Connecting How Much with How to (2012)	• Outlines the National Economic and Social Council Secretariat's vision for Ireland in 2050 as a carbon-neutral society. The report also outlines proposals for a pragmatic approach toward climate change.
Regional, County	River Basin Management Plans & draft River Basin Management Plan	• Plan setting out the status of waters in the River Basin Districts (RBDs); the proposed environmental objectives and the draft programme of measures to achieve those objectives by 2021.
	Flood Risk Management Plans (FRMP) 2017	• Plans which set out a range of proposed measures and actions to manage and reduce flood risk within the catchments and costal reaches covered by each Plan, focussing on the 300 areas of potentially significant flood risk around Ireland that were previously identified under the Preliminary Flood Risk Assessment (PFRA). These areas are referred to under the programme as Areas for Further Assessment (AFA).
	Catchment Flood Risk Assessment and Management Programme	• Delivers on core components of the National Flood Policy, adopted in 2004, and on the requirements of the EU 'Floods' Directive; central to the medium to long-term strategy for the reduction and management of flood risk in Ireland.
	Regional Spatial and Economic Strategies (RSEs)	• Act as building-blocks for sub-regional spatial and economic planning and statutory committees.
	County Development Plans (various dates)	• Provides detailed county-level strategies to allow for the proper planning and sustainable development of an area.
	County Wind Energy Strategies	• Provides recommendations for wind energy development policy and practice.
	County EV Charging Strategies	• Guides EV Charging infrastructure development
	County Renewable Energy Strategies	• Provides for the preparation of County-level renewable energy strategies.
	Regional Spatial and Economic Strategies (RSEs)	• Act as building-blocks for sub-regional spatial and economic planning and statutory committees.
	County Biodiversity and or Heritage Plans (were available, various dates)	• Outlines stipulations for proper planning, conservation and management of biodiversity and heritage for all plans/ programmes at a county level.
	County Landscape Character Assessments (LCA)	• The LCA classifies and describes the landscape in a county.
	County based waste management strategies and mineral plans	• Establishes a framework for the sustainable management of wastes generated in the county.

Scale	Plan or Programme	Context
	County-based recreation strategies	• Develops a framework to coordinate the objectives and targets of key stakeholders in a cohesive and integrated plan for the county, ensuring the provision, management and use of quality facilities and services for everyone, including future generations.
	Local, City, Town and Electoral Area/Development Plans (where available, various dates)	• Statutory requirements for proper planning and sustainable development of a local area.
EirGrid Plans	Your Grid, Your Tomorrow: Ireland's Grid Development Strategy 2016.	• Explain the need for, and drivers of, grid development.
	Transmission Development Plan (TDP)	• Annual rolling operational document outlining the Draft Grid IP for the development of the ITS and interconnection.

FEHILY TIMONEY

CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

APPENDIX 2

Summary of Consultation Feedback

In relation to adaptation and the potential effects of climate change on Agriculture, there are a number of measures that can be applied to build resilience, many of which can also have benefits from a mitigation perspective.

Maintaining a fodder reserve on farm can address the effects of longer and wetter winters as well as poorer weather conditions in spring at the start of the grazing season. The Teagasc advisory service and private Agricultural Consultants are available to provide the appropriate advice to farmers. Diversification in agricultural systems will increase resilience of farms to climate change and reduce the economic risk.

Creating further resources to harbour and restore biodiversity improve resilience to climate change. The planting of trees and forestry can contribute to carbon sequestration, and biodiversity by providing a more diverse ecosystem to build resilience. Improvements in soil structure, management and health by increasing soil organic carbon will enhance water holding capacity beneficial for drought conditions as well as high rainfall events. Peatland restoration will also improve water holding capacity as well as water quality.

Changes in climate can encourage an increase in exotic pests and diseases including invasive species - which would have a negative impact on biodiversity if measures to promote resilience are not put in place. Equally, warmer and wetter climatic conditions encourage increased disease pressure in livestock, for instance an increased prevalence of liver fluke.

An Roinn Comhshaoil,
Aeráide agus Cumarsáide
Department of the Environment,
Climate and Communications

Geological Survey
Suirbhéireacht Gheolaíochta
Ireland | Éireann

Cork City Council
City Hall
Anglesea Street
Cork, T12 T997

02 October 2023

Re: Cork City Local Authority Climate Action Plan 2024-2030

Your Ref: n/a
Our Ref: 23/268

Dear Sir/Madam,

Geological Survey Ireland is the national earth science agency and is a division of the Department of the Environment, Climate and Communications. We provide independent geological information and gather various data for that purpose. Please see our website for data availability. We recommend using these various data sets, when conducting the EIAR, SEA, planning and scoping processes. Use of our data or maps should be attributed correctly to 'Geological Survey Ireland'.

The publicly available data referenced/presented here, should in no way be construed as Geological Survey Ireland support for or objection to the proposed development or plan. The data is made freely available to all and can be used as independent scientific data in assessments, plans or policies. It should be noted that in many cases this data is a baseline or starting point for further site specific assessments.

With reference to your email received on the 30 August 2023, concerning the Cork City Local Authority Climate Action Plan 2024-2030, Geological Survey Ireland would encourage use of and reference to our datasets. This data can add to the content and robustness of the SEA process. With this in mind please find attached a list of our publicly available datasets that may be useful to the environmental assessment and planning process. We recommend that you review this list and refer to any datasets you consider relevant to your assessment. The remainder of this letter and following sections provide more detail on some of these datasets.

Geoheritage

Geological Survey Ireland is in partnership with the National Parks and Wildlife Service (NPWS) in the Department of Culture, Heritage and the Gaeltacht to identify and select important geological and geomorphological sites throughout the country for designation as geological NHAs (Natural Heritage Areas). This is addressed by the Geoheritage Programme in Geological Survey Ireland, under 16 different geological themes, in which the minimum number of scientifically significant sites that best represent the theme were rigorously selected by a panel of theme experts.

County Geological Sites (CGSs) have been adopted in the National Heritage Plan, and will form a major strand of geological nature conservation to complement the various ecological and cultural conservation measures. It is important to note however, that management issues for the majority of geological heritage sites may differ from ecological sites. County Geological Sites are the optimal way of addressing the responsibility of each authority under the Planning and Development Act 2000 and its amendments, to protect sites of geological interest.

The audit for Cork City was completed in 2022. The full report details can be found here.

Groundwater

Geological Survey Ireland's Groundwater and Geothermal Unit, provides advice, data and maps relating to groundwater distribution, quality and use, which is especially relevant for safe and secure drinking water supplies and healthy ecosystems.

Proposed developments need to consider any potential impact on specific groundwater abstractions and on groundwater resources in general. We recommend using the groundwater maps on our Map viewer which should include: wells; drinking water source protection areas; the national map suite - aquifer, groundwater vulnerability, groundwater recharge and subsoil permeability maps. For areas underlain by limestone, please refer to the karst specific data layers (karst features, tracer test database; turlough water levels (gwlevel.ie). Background information is also provided in the Groundwater Body Descriptions. Please read all disclaimers carefully when using Geological Survey Ireland data.

GWClimate is a groundwater monitoring and modelling project that aims to investigate the impact of climate change on groundwater in Ireland. This is a follow on from a previous project (GWFlood) and the data may be useful in relation to Flood Risk Assessment (FRA) and management plans. Maps and data are available on the Map viewer.

Geological Survey Ireland has completed Groundwater Protection Schemes (GWPSs) in partnership with Local Authorities, and there is now national coverage of GWPS mapping. A Groundwater Protection Scheme provides guidelines for the planning and licensing authorities in carrying out their functions, and a framework to assist in decision-making on the location, nature and control of developments and activities in order to protect groundwater. **The Groundwater Protection Response overview and link to the main reports is here: https://www.gsi.ie/en-ie/programmes-and-projects/groundwater/projects/protecting-drinking-water/what-is-drinking-water-protection/county-groundwater-protection-schemes/Pages/default.aspx**

Geological Mapping

Geological Survey Ireland maintains online datasets of bedrock and subsoils geological mapping that are reliable and accessible. We would encourage you to use these data which can be found here, in your future assessments.

Please note we have recently launched QGIS compatible bedrock (100K) and Quaternary geology map data, with instructional manuals and videos. This makes our data more accessible to general public and external stakeholders. QGIS compatible data can be found in our downloadable bedrock 100k .zip file on the Data & Maps section of our website.

Our 3D models can help stakeholders visualize, understand and characterise geology, for deposit and resource mapping, for flooding and for urban geology applications including basement impact assessment, Sustainable Drainage Systems (SuDS), and subsurface management. Our 3D models offer a key element of geotechnical risk management by identifying areas requiring further site investigation.

Further information and download instructions for the Quaternary 3D model of Cork are available on the Geological Mapping programme dedicated here and here.

Geotechnical Database Resources

Geological Survey Ireland continues to populate and develop our national geotechnical database and viewer with site investigation data submitted voluntarily by industry. The current database holding is over 7500 reports with 134,000 boreholes; 31,000 of which are digitised which can be accessed through downloads from our Geotechnical Map Viewer. We would encourage the use of this database as part of any baseline geological assessment of the proposed development as it can provide invaluable baseline data for the region or vicinity of proposed development areas. This information may be beneficial and cost saving for any site-specific investigations that may be designed as part of the project.

Geohazards

Geohazards can cause widespread damage to landscapes, wildlife, human property and human life. In Ireland, landslides, flooding and coastal erosion are the most prevalent of these hazards. We recommend that geohazards be taken into consideration, especially when developing areas where these risks are prevalent, and we encourage the use of our data when doing so.

Geological Survey Ireland has information available on landslides in Ireland via the National Landslide Database and Landslide Susceptibility Map both of which are available for viewing on our dedicated Map Viewer. Associated guidance documentation relating to the National Landslide Susceptibility Map is also available.

Geological Survey Ireland also engaged in a national project on Groundwater Flooding. The data from this project may be useful in relation to Flood Risk Assessment (FRA) and management plans, and is described in more detail under 'Groundwater' above.

Coastal Vulnerability while seen as a potential geohazard, is discussed in more detail under our marine and coastal unit information below.

Geothermal Energy

Geothermal energy harnesses the heat beneath the surface of the Earth for heating applications and electricity generation, and has proven to be secure, environmentally sustainable and cost effective over long time periods. Geothermal applications can range in depth from a few metres below the surface to several kilometres. Ireland has widespread shallow geothermal resources for small and medium-scale heating applications, which can be explored online through Geological Survey Ireland's Geothermal Suitability maps for both domestic and commercial use. We recommend use of our Geothermal Suitability maps to determine the most suitable type of ground source heat collector for use with heat pump technologies. Ireland also has recognised potential for deep geothermal resources.

The Roadmap for a Policy and Regulatory Framework for Geothermal Energy was launched at the Geoscience 2020 Conference in November 2020. The Assessment of Geothermal Resources for District heating in Ireland and the Roadmap for a Policy and Regulatory framework for Geothermal Energy in Ireland documents have been developed to support the Government's commitments under the Climate Action Plan 2019 and the Programme for Government.

For further information please see our Geoenergy pages on our website or contact the Groundwater and Geothermal Unit of the Geological Survey Ireland directly.

Natural Resources (Minerals/Aggregates)

Geological Survey Ireland is of the view that the sustainable development of our natural resources should be an integral part of all development plans from a national to regional to local level to ensure that the materials required for our society are available when required. Geological Survey Ireland highlights the consideration of mineral resources and potential resources as a material asset which should be explicitly recognised within the environmental assessment process.

Geological Survey Ireland provides data, maps, interpretations and advice on matters related to minerals, their use and their development in our Minerals section of the website. The Active Quarries, Mineral Localities and the Aggregate Potential maps are available on our Map Viewer.

We would recommend use of the Aggregate Potential Mapping viewer to identify areas of High to Very High source aggregate potential within the area. In keeping with a sustainable approach we would recommend use of our data and mapping viewers to identify and ensure that natural resources used in developments are sustainably sourced from properly recognised and licensed facilities, and that consideration of future resource sterilization is considered.

Marine and Coastal Unit

Our marine environment is hugely important to our bio-economy, transport, tourism and recreational sectors. It is also an important indicator of the health of our planet. Geological Survey Ireland's Marine and Coastal Unit in partnership with the Marine Institute, jointly manages INFOMAR, Ireland's national marine mapping programme; providing key baseline data for Ireland's marine sector.

The programme delivers a wide range of benefits to multi-sectoral end-users across the national blue economy with an emphasis on enabling our stakeholders. Demonstrated applications for the use of INFOMAR's suite of mapping products include Shipping & Navigation, Fisheries Management, Aquaculture, Off-shore Renewable Energies, Marine Leisure & Tourism and Coastal Behaviour.

INFOMAR also produces a wide variety of seabed mapping products that enable public and stakeholders to visualize Ireland's seafloor environment https://www.infomar.ie/maps/downloadable-maps/maps. Story maps have also been developed providing a different perspective of some of the bays and harbors of the Irish coastline. We would therefore recommend use of our Marine and Coastal Unit datasets available on our website and Map Viewer.

The Marine and Coastal Unit also participate in coastal change projects such as CHERISH (Climate, Heritage and Environments of Reefs, Islands, and Headlands) and are undertaking mapping in areas such as coastal vulnerability and coastal erosion. Further information on these projects can be found here.

National Coastal Change Assessment

Geological Survey Ireland is undertaking a National Coastal Change Assessment. As part of this initiative two mapping products will be delivered for the entire Irish coastline: **coastal vulnerability mapping and shoreline change.**

Coastal vulnerability maps will provide an insight into the relative susceptibility of the Irish coast to adverse impacts of sea-level rise through the use of a **Coastal Vulnerability Index** (CVI). Currently the project is being carried out on the east coast and will be rolled out nationally over the next couple of years, detailed information and maps are available here. **Shoreline change rates** for the period 2000 to 2023 are being prioritised and will be released by county on a rolling basis over the next 12 months. Shoreline change rates database and reports will be accessible from GSI web mapping viewers. These suite of coastal mapping products are aimed at coastal managers to prioritise or concentrate efforts on adaptation.

I hope that these comments are of assistance, and if we can be of any further help, please do not hesitate to the Geological Survey Ireland Planning Team at GSIPlanning@gsi.ie.

Yours sincerely,

Geoheritage and Planning Programme

Enc: Table - Geological Survey Ireland's Publicly Available Datasets Relevant to Planning, EIA and SEA processes.

Geological Survey Ireland's Publicly Available Datasets Relevant to Planning, EIA and SEA processes

following European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018
(S.I. No. 296 of 2018)

Geological Survey Ireland Programme	Dataset	Relevant EIA Topic	Coverage	Description / Notes / Limitations	Link to Geological Survey Ireland map viewer
Geohazards	Landslide: National landslide database and landslide susceptibility map	Land & Soil/Climate/Landscape	National	Associated guidance documentation relating to the National Landslide Susceptibility Map is also available.	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=b68cf1e4a9044a5981f950e9b9c5625c
Geohazards	Groundwater Flooding (Historic)	Water	Regional	Provide information of historic flooding, both surface water and groundwater. [A lack of flooding presented in any specific location of the map only indicates that a flood has not been detected. It does not indicate that a flood cannot occur in that location at present or in the future]	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc
Geohazards	Groundwater Flooding (Predictive)	Water	Regional	Provides information on the probability of future karst groundwater flooding (where available). [The maps do not, and are not intended to, constitute advice. Professional or specialist advice should be sought before taking, or refraining from, any action on the basis of the flood maps]	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=848f83c85799436b808652f9c735b1cc
Geohazards	Radon Map	Land & Soils/Air	National		http://www.epa.ie/radiation/radonmap/
Geoheritage	County Geological Sites as adopted by National Heritage Plan and listed in County Development Pla	Land & Soils/Landscape	Regional	All geological heritage sites identified by Geological Survey Ireland are categorised as CGS pending any further NHA designation by NPWS.	https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbde2aaac3c228
Geological Mapping	Bedrock geology:	Land & Soils	National	1:100,000 scale and associated memoirs.	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7ee1b6ab8d5&scale=0
Geological Mapping	Bedrock geology:	Land & Soils	Regional	1:50,000 scale	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7ee1b6ab8d5&scale=0
Geological Mapping	Quaternary geology: Sediments	Land & Soils	National	1:50,000 scale	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7ee1b6ab8d5&scale=0
Geological Mapping	Quaternary geology: Geomorphology	Land & Soils	National	1:50,000 scale	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=de7012a99d2748ea9106e7ee1b6ab8d5&scale=0
Geological Mapping	Physiographic units:	Land & Soils	National	Broad-scale physical landscape units mapped at 1:100,000 scale in order to be represented as a cartographic digital map at 1:250,000 scale	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=afa76a420fc54877843aca1bc075c62b
Geological Mapping	GeoUrban: Spatial geological data for the greater Dublin and Cork areas	Land & Soils	Regional	includes 3D models	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9768f4818b79416093b6b2212a850ce6&scale=0
Geological Mapping	Geotechnical database	Land & Soils	National	Digitised geotechnical and Site Investigation Reports and boreholes which can be accessed through online downloads	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=a2718be1873d47a585a3f0415b4a724c
Goldmine	Historical data sets including geological memoirs and 6" to 1 mile geological mapping records	land & Soils/Water	National	available online	https://secure.dccae.gov.ie/goldmine/index.html
Groundwater & Geothermal	Groundwater resources (aquifers)	Water	National	Data limited to 1:100,000 scale; sites should be investigated at local scale	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	Groundwater recharge.	Water	National	Data limited to 1:40,000 scale; sites should be investigated at local scale; long term annual average recharge	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	Groundwater vulnerability.	Water	National	Data limited to 1:40,000 scale; sites should be investigated at local scale	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	Group scheme and public supply source protection areas.	Water	National	Not all PWS / GWS have SPZ / ZOC. Check with IW / coco / NFGWS for private supplies.	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	Groundwater Protection Schemes	Water	National	Data is limited to scale of 1:40,000. Data does not include all of the source protections areas	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	Catchment and WFD management units.	Water	National		https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	karst specific data layers	water	National	For areas underlain by limestone, includes karst features, tracer test database; turlough water levels (gwlevel.ie).	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	Wells and Springs	Water	National	Not comprehensive, there may be unrecorded wells and springs	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=7e8a202301594687ab14629a10b748ef
Groundwater & Geothermal	Groundwater body Descriptions	Water	National	Not exhaustive; only those in designated SACs; could be other GWDTEs; for more information contact NPWS / EPA / site investigations	https://www.gsi.ie/en-ie/programmes-and-projects/groundwater-and-geothermal-unit/activities/understanding-ireland-groundwater/Pages/Groundwater-bodies.aspx
Groundwater & Geothermal	Geothermal Suitability maps	land & Soils/Water	National	Also, Roadmap for a Policy and Regulatory Framework for Geothermal Energy, November 2020	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=9ee46bee08de41278b90a991d60c0b9e
Marine & Coastal Unit	INFOMAR - Ireland's national marine mapping programme; providing key baseline data for Ireland's	Water	National		https://secure.dccae.gov.ie/GSI/INFOMAR_VIEWER/
Marine & Coastal Unit	CHERISH - Coastal change project (Climate, Heritage and Environments of Reefs, Islands, and Headla	Water	Regional		http://www.cherishproject.eu/en/
Marine & Coastal Unit	Coastal Vulnerability Index (CVI).	water /Land & Soils	Regional	Currently the project is being carried out on the east coast and will be rolled out nationally	https://www.gsi.ie/en-ie/programmes-and-projects/marine-and-coastal-unit/projects/Pages/Coastal-Vulnerability-Index.aspx
Minerals	Aggregate potential	Land & Soils/Material Assets	National	Consideration of mineral resources and potential resources as a material asset which should be explicitly recognised within the environmental assessment process	https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956
Minerals	Active quarries	Land & Soils	National		https://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=ee8c4c285a49413aa6f1344416dc9956
Minerals	Historic mines	Land & Soils/Cultural Heritage	National	Inventory and Risk Classification 2009. Environmental Protection Agency, Economic Minerals Division and Geological Survey Ireland (DECC).	https://gis.epa.ie/EPAMaps/default?easting=?&northing=?&lid=EPA:LEMA_Facilties_Extractive_Facilities https://www.epa.ie/enforcement/mines/
Tellus	Geochemical data: multi-element data for shallow soil, stream sediment and stream water	Land & Soils	Regional	A national mapping programme	https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707ff72f754
Tellus	Airborne geophysical data including radiometrics, electromagnetics and magnetics	Land & Soils	Regional	A national mapping programme	https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707ff72f754
Tellus	urban geochemistry mapping (Dublin SURGE project),	Land & Soils	Regional		https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=6304e122b733498b99642707ff72f754

Notes:

1. The maps and data listed above are available on the Geological Survey Ireland map viewer https://www.gsi.ie/en-ie/data-and-maps/Pages/default.aspx

2. Please read all disclaimers carefully when using Geological Survey Ireland data

3. Geological Survey Ireland and Irish Concrete Federation published guidelines for the treatment of geological heritage in the extractive industry in 2008.

FEHILY TIMONEY

CONSULTANTS IN ENGINEERING,
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APPENDIX 3

Detailed Evaluation of the Environmental Effects of Plan Implementation

Appendix 3.1 - Approach and Methodology for the Detailed Evaluation of Environmental Effects of Plan Implementation

A detailed evaluation of the potential effects of the Preferred LACAP on the baseline environment has been carried out in accordance with best practice guidelines. An evaluation matrix template has been developed to facilitate the evaluation of the Preferred LACAP on Strategic Environmental Objectives (SEOs) relevant to each Environmental Component.

A dedicated evaluation matrix has been prepared for each Theme Area in the Draft LACAP. Draft LACAP Actions associated with that Theme Area are listed on one axis of this matrix. The corresponding potential environmental effects of the actions are then described. An evaluation of the environmental effects of Draft LACAP Actions on Environmental Components, having regard to the SEOs relevant to each Environment Component, was then carried out for each Theme Area of the Draft LACAP in accordance with the requirements of the SEA Directive and best practice guidelines. Potential effects of the Draft LACAP on Environmental Components/SEOs have been categorised as follows:

- Potential Positive Environmental Impact (indicated in the matrix by a '+').[71]
- Potential Negative Environmental Impact (indicated in the matrix by a '-').[72]
- Potential Positive and Negative Environmental Impacts (indicated in the matrix by a '+/-').
- Uncertain Environmental Impact ((indicated in the matrix by a '?').
- Neutral, No or Insignificant Environmental Impact (indicated in the matrix by a '0').

The evaluation considers all potential direct, indirect/secondary, cumulative[73], synergistic[74], short, medium and long-term, permanent and temporary, positive and negative environmental effects.

Detail on the SEOs associated with Environmental Components which the environmental effects of the Draft LACAP have been measured against is provided in Table 1 overleaf.

Completed Evaluation Matrices for each Draft LACAP Theme Area are presented in Appendix 3.2.

[71] Potential Positive Environmental Impacts are defined as having the potential to support the achievement of an SEO.
[72] Potential Negative Environmental Impacts are defined as having the potential to hinder the achievement of an SEO.
[73] The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects.
[74] The addition of effects to create a total effect greater than the sum of the individual effects so that the nature of the final impact is different to the nature of the individual impact.

Table 1 - Strategic Environmental Objectives against which the environmental effects of the Draft LACAP have been measured

Environmental Component	SEO Code	Strategic Environmental Objective
Overall	O1	Ensure, where appropriate, that lower-level plans and projects contribute to overall environmental monitoring processes within the City.
Population & Human Health	PHH1	Avoid or, minimise impacts to population and human health.
	PHH2	Ensure the Decarbonising Zone avoids and minimises impacts to the existing economic activities within the area and does not compromise/conflict with existing land use objectives.
Biodiversity, Flora & Fauna	B1	Ensure Climate Action does not conflict with biodiversity protection, restoration and rehabilitation.
	B2	Ensure compliance with Habitats and Birds Directives with regard to protection of European Sites and Annexed habitats and species.[75]
	B3	Support Article 10 of the Habitats Directive with regard to the management of features of the landscape which - by virtue of their linear and continuous structure or their function as stepping stones (designated or not) - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species.
	B4	To avoid or minimise significant impacts on semi-natural habitats, species, environmental features or other sustaining resources in designated national sites and to comply with the Wildlife Acts 1976-2012 with regard to listed species.
	B5	Go beyond biodiversity protection to deliver biodiversity enhancement, wherever possible, in response to the biodiversity emergency.
Landscape, Seascape & Visual Amenity	L1	Avoid or minimise impacts on statutory landscape designations defined in the CDP.
	L2	Avoid or minimise adverse visual effects on residential receptors or other sensitive visual receptors.
Cultural Heritage - Archaeology & Architectural	CH1	Avoid impacts upon archaeological heritage (including entries to the Record of Monuments and Places (RMP)) and architectural heritage (including entries to the Record of Protected Structures (RPS) and National Inventory of Architectural Heritage (NIAHs)).
Soils	S1	Avoid or minimise effects on mineral resources or soils.
Land Use	LU1	Avoid or minimise effects on existing land use.
Air Quality and Noise	AQN1	Increase the number of people travelling to work or school via public transport or by non-mechanical means.
	AQN2	Avoid or minimise effects on local air quality.
	AQN3	Avoid or minimise adverse noise impacts.

[75] 'Annexed habitats and species' refer to those listed under Annex I, II & IV of the EU Habitats Directive and Annex I of the EU Birds Directive.

Environmental Component	SEO Code	Strategic Environmental Objective
Water	W1	Maintain and/or improve, the quality and status of surface waters.
	W2	Maintain and/or improve, the chemical and quantitative status of groundwaters.
	W3	Prevent impact upon the WFD status of surface waters and groundwater in line with the requirements of the WFD.
	W4	Comply as appropriate with the provisions of the Flood Risk Management Guidelines.
	W5	Prevent impact upon drinking water quality.
Material Assets	MAI1	Avoid or minimise effects on built/amenity assets and infrastructure.
	MAI2	Avoid or minimise effects on effects upon existing and (where known) planned infrastructure.
	MAI3	Promote sustainable transportation.
	MAI4	Promote sustainable waste management.
	MAI5	Promote sustainable water use and drainage management.
Tourism & Recreation	TR1	Avoid or minimise effects upon tourism and recreation amenities.
Climate Change	CF1	Delivery of the necessary action to support the national target of 80% electricity from renewable sources by 2030.
	CF2	Actively support the delivery of all national climate policy as appropriate to the city with the prioritisation and acceleration of evidence-based measures.
	CF3	CF3: Assist in the delivery of the climate neutrality objective at local and community levels.
	CF4	Deliver a Decarbonising Zone (DZ) within the local authority area to act as a test bed for a range of climate mitigation and adaptation measures in a specifically defined area through the identification of projects and outcomes that will assist in the delivery of the National Climate Objective.
Inter-relationships	IR1	Maintain and improve the health of people, ecosystems and natural processes Actively seek to integrate opportunities for environmental enhancement during adaptation to climate change

Appendix 3.2 - Evaluation Matrix - Detailed Evaluation of Environmental Effects of Plan Implementation

Governance and Leadership

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
1.1	Cork City Council's Climate Action Committee will continue to oversee the council's progress on climate action and promote awareness of issues, actions and initiatives related to climate.	This promotional/engagement action will underpin and support the effective delivery of climate action in the community by promoting awareness and understanding of climate action related issues. The adoption of this action will support the full realisation of the vision and main objectives of the plan in the community but will have no discernible environmental effects in and of itself.	0	0	0	0	0	0	0	0	0	0	+
1.2	Increase participation of Elected Members in formally recognised accredited climate-related training programmes. Provide information and communications support to Elected Members to advocate for implementation of climate action.	This is an engagement related action. The implementation of the action will have no real environmental effect when considered in isolation. The action will serve to promote organisational climate action awareness but the adoption of this action will support the full realisation of the vision and main objectives of the plan	0	0	0	0	0	0	0	0	0	0	0
1.3	Enhance the work of the Council's inter-disciplinary Climate Action Team, with representation from all the organisation's key functions, to raise collective ambition, coordinate, monitor, and report to Senior Management Team on progress in implementing actions.	This is an engagement related action. The implementation of the action will have no real environmental effect when considered in isolation. The action will serve to promote organisational climate action awareness but the adoption of this action will support the full realisation of the vision and main objectives of the plan	0	0	0	0	0	0	0	0	0	0	0
1.4	Climate Action will remain an item on the weekly meeting of Senior Management Team, who will continue to manage reputational and financial risk related to climate action policy implementation.	This action promotes effective implementation of the actions contained within the CAP. It supports the goals of the climate action plan and supports the full realisation of the vision and objectives of the plan within the local authority. It will have no discernible environmental effects in and of itself.	0	0	0	0	0	0	0	0	0	0	0

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
1.5	All staff will complete climate action training as per the Local Authority Climate Action Training Plan. Design and deliver additional experiential learning tailored to the Cork City context as funds allow.	This training related action will underpin and support the effective delivery of climate action in the local authority organisation by promoting awareness and understanding of climate action related issues. The adoption of this action will support the full realisation of the vision and main objectives of the plan in the community.	0	0	0	0	0	0	0	0	0	0	0
1.6	Establish a Leadership Group with representatives of key Cork City stakeholder groups to progress a 'whole of city' approach to climate neutrality through the EU, Climate -Neutral & Smart Cities Mission	This action supports the full realisation of the goals and objectives of this CAP. The establishment of a leadership group will have no real environmental effect when considered in isolation.	0	0	0	0	0	0	0	0	0	0	0
1.7	Establish an Operations Team, under the Leadership Group, to support implementation, coordination, monitoring, evaluation, innovation and learning.	This action supports the full realisation of the goals and objectives of this CAP and supports the successful implementation of the Leadership Group. The establishment of a Performance Management and Learning Team will have no real environmental effect when considered in isolation.	0	0	0	0	0	0	0	0	0	0	0
1.8	Establish a Public-Sector Climate Forum with branches of state agencies within Cork City to collaborate on decarbonising the city by identifying and co-ordinating common climate actions between the sectors, such as buildings, energy, procurement and mobility.	This action promotes climate action within the business sector, thereby supporting the full realisation of the goals and objectives of this CAP.	0	0	0	0	0	0	0	0	0	0	0
1.9	Continue Cork City Council's regular liaison and co-operation with the Climate Action Regional Office (CARO) Atlantic Seaboard South.	This action supports the full realisation of the goals and objectives of this CAP and supports the successful implementation of the Leadership Group. Cooperating and liaising with CARO will have no real environmental effect when considered in isolation.	0	0	0	0	0	0	0	0	0	0	0

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
1.10	Establish a robust and intuitive whole-of-organisation information management service, supported by the recruitment of appropriate capacity, to enable the integration of information systems, facilitate learning, for more effectively joined up, cross-directorate climate action. This will include a reporting and monitoring system to track the progress of the climate actions in the CAP.	This action supports the full realisation of the goals and objectives of this CAP. This serves to produce some degree of positive effect, broadly.	0	0	0	0	0	0	0	0	0	0	+
1.11	Establish, coordinate and facilitate a public platform for climate action that provides opportunities for co-ordination, collaboration, information sharing and learning among all sectors of the community. The platform will amplify progress on climate action and facilitate buy-in to future transition.	This action will support public engagement in climate action and education. It will support the effective delivery of climate action in the community and will facilitate a broader understanding of climate and cultural related issues. The action is promotional in nature and will not have a discernible environmental effect in and of itself. The adoption of this action will support the full realisation of the vision and main objectives of the plan in the community.	0	0	0	0	0	0	0	0	0	0	0
1.12	Appraise options for innovative mechanisms for citizen participation in the leadership and delivery of Cork City's transition and establish the preferred mechanism. Models to be explored include a local Citizen's Assembly or Citizen's Forum that would include often unheard voices, such as individuals, youth, disabled, elderly, etc.	This action is promotional in nature and will have no discernible environmental effect in and of itself. It has the potential to support the full realisation of the goals and objectives of the actions contained within this LACAP.	0	0	0	0	0	0	0	0	0	0	0

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
1.13	Establish a Communications Working Group, with dedicated resources, informed by climate and behavioural science and with internal / external participants, to advise and build capacity for application in policy, planning, investment programmes, and public-awareness.	This action will facilitate the effective inclusion of climate action initiatives within the City Council. This will likely result in some degree of positive effect in terms of GHG emissions.	0	0	0	0	0	0	0	0	0	0	+
1.14	Climate proof all City Council plans, procedures & policies, ranging from the Corporate Plan to individual personal development plans.	This action supports the full realisation of the goals and objectives of this CAP. This serves to produce some degree of positive effect, broadly.	0	0	0	0	0	0	0	0	0	0	+
1.15	Implement the forthcoming Green Public Procurement Strategy , including social considerations, and create awareness and capacity around Green Procurement principles, including for all Council-supported events.	The successful and effective promotion of green public procurement has the potential to generate some degree of positive environmental effects generally. This action has the potential to result in the more sustainable delivery of housing schemes., leading to some degree of GHG emission offsetting.	0	0	0	0	0	0	0	0	0	0	+
1.16	Support and expand the SEAI Accelerator Programme to develop a culture of leadership that enables all City Council staff to take ownership of climate action.	This promotional action supports the full realisation of this CAP. When considered in isolation, it will have no real environmental effect.	0	0	0	0	0	0	0	0	0	0	0
1.17	Establish the carbon footprint for business travel in the council. Set carbon budgets to minimise the carbon footprint of staff and Councillors' business travel. Enhance workplace facilities to encourage and facilitate virtual meetings.	This action will support the local authority in reducing its organisational GHG emissions in line with climate policy and legislation and emission reduction targets. The action is likely to have a slight positive environmental effect in terms of GHG emissions associated with travel/commuting using ICE-based vehicles.	0	0	0	0	0	0	+	0	0	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
1.18	Continue to implement the Cork City Climate Change Adaptation Strategy 2019-2024. When it expires, ensure that relevant outstanding actions that are not specified in the CAP are assumed into the Implementation Plan for the CAP.	This action supports the full realisation of this CAP and safeguards its continued influence in the region.	0	0	0	0	0	0	0	0	0	0	+
1.19	Maximise the benefits of EU Missions & Programmes through the development of new city-to-city partnerships, leveraging resources, learning and training, and communications: • 100 Climate-Neutral & Smart Cities • Climate Adaptation Mission • Oceans Mission • Intelligent Cities Challenge	This action promotes collaboration between partnering cities. This may serve to support the full realisation of the CAP. It will, however, have no discernible environmental impact when considered in isolation.	0	0	0	0	0	0	0	0	0	0	0
1.20	Maximise the benefits of EU-funded projects, through the development of new regional partnerships, leveraging resources, learning and training, and communications, and accessing new partnership opportunities through Horizon Europe, UrbAct and others. Current programmes include: • Reachout • Zero Carbon Infrastructure (ZCI) • Frugal Approach	This action promotes collaboration between partnering cities. This may serve to support the full realisation of the CAP. It will, however, have no discernible environmental impact when considered in isolation.	0	0	0	0	0	0	0	0	0	0	0
1.21	Develop a GBI hub/portal for external viewing and transparency of data, aligned	This action serves to provide ease of access to GBI data. This action will have no discernible environmental effect in and of itself.	0	0	0	0	0	0	0	0	0	0	0

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
	with open data goals of the Digital Strategy (2018-2022).												
1.22	As one of the EU's Climate Neutral & Smart Cities, the whole of the city is regarded as a Decarbonising Zone with an aim to be carbon neutral by 2030. The discrete area originally identified as a Decarbonising Zone in the southwest of the city may be used, where appropriate, as a test-bed for advanced and experimental projects to accelerate the actions in this CAP. However, such projects will also take place outside of the DZ so that mitigation and adaption measures are enacted throughout the city.	This action can potentially lead to positive climate effects.	0	-	0	-	0	0	-	-	0	0	+

Key: PHH - Population & Human Health. BFF - Biodiversity, Flora & Fauna. L - Landscape, Seascape & Visual Amenity. CH - Cultural Heritage - Archaeology & Architectural. S - Soils. LU - Land Use. AQN - Air Quality and Noise. W - Water. MA - Material Assets. TR- Tourism & Recreation. CC - Climate Change.

Communities and Partnerships

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
2.1	Support the PPN to widen participation and membership by offering supports to community groups, residential associations, sports clubs and other clusters of community activity.	This action is promotional in nature and will have no discernible environmental effect in and of itself.	0	0	0	0	0	0	0	0	0	0	0
2.2	Capture and map (using ArcGIS) current community climate action. Ultimately, allowing uploading of community projects with information on methodologies, funding sources, etc. to encourage expansion of projects.	This action underpins the effective delivery of climate action to the community. It supports public engagement in climate action and facilitates a broader understanding of climate-related issues. Mapping current community climate action, when considered in isolation, will have no environmental effect.	0	0	0	0	0	0	0	0	0	0	0
2.3	Identify and acknowledge existing community climate action 'champions' and amplify their campaigns.	This promotional action supports community-related climate action. This may result in attitude shifts and may facilitate a broader understanding of climate-related issues.											
2.4	Establish a community leadership development programme that will build knowledge, confidence and capacity of community members to initiate climate action in their neighbourhoods.	This action will support public engagement in climate action and education. The action is promotional in nature and will not have a discernible environmental effect in and of itself. The adoption of this action will support the full realisation of the vision and main objectives of the plan in the community.	0	0	0	0	0	0	0	0	0	0	0
2.5	Explore additional cross-border projects with Local Authorities and other public bodies in Northern Ireland with regard to climate action and biodiversity. Build on the emerging partnership between Cork and Belfast City Council, using funding streams such as the Shared Island Fund.	This action is promotional in nature and will have no discernible environmental effect when considered in isolation. If successful, it may serve to facilitate climate- and biodiversity-action.	0	0	0	0	0	0	0	0	0	0	0

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
2.6	Support new and existing community partnerships and networks that increase climate action in the city, such as Green Spaces for Health, Transport & Mobility Forum, Cork Healthy Cities and Cork Food Policy Council.	This action supports a range of community initiatives which may lead to a broad range of positive environmental effects, including biodiversity, human health, landscape, cultural heritage, water and air quality, and climate change, generally. This may lead to increased public engagement in climate/biodiversity action. This action supports the full realisation of the goals and objectives of this LACAP.	+	+	+	+	+	+	+	+	+	+	+
2.7	Design and establish corporate principles, standards and tools to ensure that where feasible all Council community funding and support is screened for its potential impact on the environment and climate.	This action supports the realisation of the goals and objectives of this climate action plan. It may lead to slight-to-moderate positive environmental effects, broadly, depending on the initiatives supported and climate actions for which funding is provided.	0	0	0	0	0	0	0	0	0	0	+
2.8	Fund Cork-City based community organisations for local climate actions, through the National Community Climate Action Programme, and promote Shared Island partnership funding opportunities	This action supports the realisation of the goals and objectives of this climate action plan. It may lead to slight-to-moderate positive environmental effects, broadly, depending on the initiatives supported and climate actions for which funding is provided.	0	0	0	0	0	0	0	0	0	0	+
2.9	Implement City Centre Placemaking Fund focusing on innovative projects which activate and green sites, whilst promoting - through control or influence as appropriate - adherence to environmental protection requirements during development projects.	This action has the potential to have moderate positive effects on biodiversity, human health, landscape/visual impact, air quality and climate change. The adoption of this action may lead to works being carried out at a number of sites which may have short-term negative consequences for air quality, noise, water quality, and biodiversity and efforts should be made to mitigate against these, where possible.	+	+/-	+	0	0	+	+/-	+/-	0	+	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
2.10	Integrate climate action as a strategic issue for Cork City Council's Arts and Culture Strategic Priorities Art in the Public Realm and Space for Art.	While this action will have no discernible environmental effect in and of itself, it supports the full realisation of this CAP. This action may support public engagement in climate action as awareness is promoted through the use of alternative mediums.	0	0	0	0	0	0	0	0	0	0	0
2.11	Promote Cork City Council's Creativity and Culture Strategy Be Climate Active.	This action is promotional in nature and will have no discernible environmental effect in and of itself. It has the potential to result in some degree of climate action in the community.	0	0	0	0	0	0	0	0	0	0	+
2.12	Support small enterprises with investment in energy efficient technologies and equipment through the Energy Efficiency Grant, whilst promoting - through control or influence as appropriate - adherence to environmental protection requirements during development projects.	This is a funding related action that may result in slight-moderate reductions in GHG emissions from small enterprises. The funding may support energy retrofits or small-scale renewable energy development, which could have unintended environmental effects, such as effects on protected species, biodiversity or built heritage.	0	0	0	0	0	0	0	0	0	0	+/-
2.13	Support micro SMEs with Consultancy services towards the development of sustainability management plans (Green for Micro & Greenstart).	This action has the potential to support the delivery of commercial sector GHG emission reductions and energy efficiency generally.	0	0	0	0	0	0	0	0	0	0	+
2.14	Support and enable Visit Cork's annual application to the Global Destinations Sustainable Index.	This action will have no discernible environmental effect in and of itself.	0	0	0	0	0	0	0	0	0	0	0
2.15	Follow-up the 2023 B&A Residential Household Survey periodically to track progress of citizens' attitudes to climate issues.	While this action will have no environmental effect in and of itself, it may provide valuable baseline data that may facilitate the full realisation of the goals of this CAP.	0	0	0	0	0	0	0	0	0	0	0
2.16	Work with sporting associations on a citywide basis to develop plans to reduce the carbon footprint of their organisation and their members.	This action may result in slight reductions in GHG emissions produced by sporting associations across the functional area of the Local Authority.	0	0	0	0	0	0	0	0	0	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
2.17	Promote schools' programmes such as the Green Flag Schools, School Gardens, and Climate Literacy programmes, providing funding and support where possible.	This educational/engagement action will support the promotion of good environmental management at schools and has the potential to generate some degree of positive effects on biodiversity and climate.	0	+	0	0	0	0	0	0	0	0	+

Key: PHH - Population & Human Health. BFF - Biodiversity, Flora & Fauna. L - Landscape, Seascape & Visual Amenity. CH - Cultural Heritage - Archaeology & Architectural. S - Soils. LU - Land Use. AQN - Air Quality and Noise. W - Water. MA - Material Assets. TR- Tourism & Recreation. CC - Climate Change.

Built Environment and Energy

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
3.1	Deliver the framework plans for the expansion zones (Blarney, South Ballincollig, Holyhill, Blackpool, Ballyvolane, South Glanmire, Douglas) and regeneration areas (Docklands) identified in the City Development Plan 2022-2028 as exemplary climate positive projects, through integration of approaches recommended in the Cork City GBI Strategy, Trees Strategy, and other good practices for sustainable development. Ensure projects supported by this action are delivered in a manner that has due regard to: - All relevant environmental sensitivities (e.g., heritage, biodiversity, European site related sensitivities), and; - Opportunities to promote climate action co-benefits (e.g., through the use of nature-based solutions or sustainable drainage systems).	This action will promote the protection and further development of green infrastructure. The protection and development of green infrastructure has the potential to have wide ranging slight to very significant positive effects on biodiversity, and slight to significant positive effects on tourism and recreation amenity and water quality and hydrology. In absence of appropriate design and mitigation, the development of projects and infrastructure supported by this action could potentially result in negative environmental effects, including negative construction related effects, negative effects on biodiversity or negative effects on heritage assets.	0	-	0	-	0	0	+/-	-	0	0	+/-
3.2	Carry out Investment Grade Energy Audit of Cork City Hall campus (Old City Hall building, New Civic Offices & Anglesea Street Fire station).	This action will have no discernible environmental effect in and of itself. It may, however, serve as a stepping stone towards the retrofitting/energy-upgrading of Cork City Hall campus which may lead to moderate-significant GHG reductions in the area.	0	0	0	0	0	0	0	0	0	0	+
3.3	Complete Energy Performing Contract (EPC) on seven nominated Cork City Council Buildings. The aim is to improve energy efficiency and to reduce CO2 emissions across each site.	This action supports the delivery of climate change adaptation measures to existing buildings with high energy consumption. This may result in slight-moderate decreases in GHG emissions which serves to benefit climate action.	0	0	0	0	0	0	0	0	0	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
	Using a large energy consuming building, i.e. a leisure centre, and incorporating smaller-consuming buildings into the contract to make it financially viable to complete works and to help establish best-practice guidance for similar building across the city, having due regard to environmental sensitivities such as biodiversity, European sites, sensitive human receptors, and heritage features.	The creation of best practice guidance from this action facilitates the undertaking of further similar actions across the Country. The action may support building retrofit works which have the potential to generate light and air pollution and impinge on built heritage features.											
3.4	Develop a detailed building stock/database to help categorise each Cork City Council building and identify a list of actions required for each.	This action will have no discernible environmental effect in and of itself. It does, however, underpin effective delivery of retrofitting/energy-upgrading of City Council-owned buildings.	0	0	0	0	0	0	0	0	0	0	0
3.5	Develop and submit application to European Local Energy Assistance (ELENA) technical assistance grant of European Investment Bank (EIB) to accelerate investment in building energy efficiently upgrades	This action will have no discernible environmental effect in and of itself.	0	0	0	0	0	0	0	0	0	0	0
3.6	Protect the rural hinterland of Cork City for nature and biodiversity through rigorous application of the principles of compact growth and rural housing policy in all development management decisions.	This action serves to benefit and enhance biodiversity locally.	0	+	0	0	0	0	0	0	0	0	0
3.7	Accelerate revitalisation of derelict buildings for housing and commercial use, minimising demolition and achieving energy efficiency upgrades, having due regard for environmental sensitivities such as local human	This action will support the reduction/offset of GHG emissions in the community. The action is likely to have a slight positive environmental effect - having regard to the share of GHG emission reductions that can be supported via this action relative to national GHG emission reduction targets and requirements.	0	-	0	-	0	0	-	-	0	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
	receptors, European sites and biodiversity; and the need to appropriately protect and conserve protected structures, during any retrofitting works.	This action may support refurbishment or retrofitting of housing and building stock. There is the potential for light and air pollution during retrofitting works. Retrofitting works may also negatively affect the appropriate conservation of protected structures. Therefore there is also scope for there to be negative effects if unmitigated.											
3.8	Establish a Cork City Retrofitting & Renewables Taskforce for decarbonising the city's building stock to explore, inform and ensure the transition to sustainable, energy efficient residential homes, commercial buildings, heritage buildings, private rented properties, apartments, public buildings. Fund pilot projects in hard to retrofit and heritage buildings. Make it a mission of this taskforce to achieve the decarbonisation of the city's building stock without resulting in unintended negative effects on humans, heritage or biodiversity.	This action will support the reduction/offset of GHG emissions in the community. The action is likely to have a slight positive environmental effect - having regard to the share of GHG emission reductions that can be supported via this action relative to national GHG emission reduction targets and requirements. This action may support refurbishment or retrofitting of housing and building stock. There is the potential for light and air pollution during retrofitting works. Retrofitting works may also negatively affect the appropriate conservation of protected structures. Therefore there is also scope for there to be negative effects if unmitigated.	0	-	0	-	0	0	-	-	0	0	+
3.9	Identify and develop opportunities for collaboration with the private sector for large-scale investment in energy projects in the city, including but not limited to district heating, rooftop solar, retrofitting, and standalone low-carbon energy generation projects. Promote - through control or influence as appropriate - the carrying out of development supported by this action in a manner that has due regard to relevant environmental	This is an administrative related action and will have no real environmental effect when considered in isolation. The action could potentially support the carrying out of a variety of climate action projects, including renewable energy and green infrastructure projects that could generate a range of slight to significant positive environmental effects, including positive effects on climate, water quality, the soils environment and biodiversity. In the absence of mitigation, the action could support the carrying out of climate action related development that may have unintended negative environmental effects.	0	-	-	-	0	+	+/-	-	+	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
	sensitivities, including heritage, water quality, biodiversity, European sites and landscape and visual amenity related sensitivities.	Such development could be potentially significant renewable energy development which could have negative slight to significant environmental effects, including impacts on landscape character and visual amenity (in the case of renewable energy projects such as the development ground-based or rooftop solar PV panels, for example), impacts on population and human health (due to solar panel glint and glare, biodiversity impacts, and impacts on the water or soils environment (due to development construction phase run-off of silt or cement based material). Such potential effects can be mitigated by considering planning and environmental related matters and constraints early on during the assessment/design process.											
3.10	Complete review of mechanisms for financing and managing retrofitting/renewables and consideration of alternative funding resources and management approaches for all Council-owned property, having due regard to protected species, biodiversity, European sites and the need to appropriately conserve protected structures.	While completing a review will have no environmental impact in and of itself, This action supports retrofitting of council-owned properties.	0	0	0	0	0	0	0	0	0	0	0
3.11	Implement, and where possible accelerate, the plan to retrofit and carry out energy efficiency upgrades on City Council buildings, having due regard for environmental sensitivities such as local human receptors, European sites and biodiversity; and the need to appropriately protect and conserve protected structures.	This action will support the local authority reducing its organisational GHG emissions in line with climate policy and legislation and emission reduction targets. The action is likely to have a slight positive environmental effect - having regard to the share of GHG emission reductions that can be supported via this action relative to national GHG emission reduction targets and requirements. There is the potential for light and air pollution during retrofitting works. Retrofitting works may also negatively affect the appropriate conservation of protected structures. Therefore there is also scope for there to be negative effects if unmitigated	0	-	0	-	0	0	+/-	0	0	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
3.12	Accelerate retrofitting of the social-housing stock to at least a B2 BER or the Cost Optimal Equivalent (as defined by the building regulations Part L- conservation of fuel and energy) , having due regard for environmental sensitivities such as local human receptors, European sites and biodiversity; and the need to appropriately protect and conserve protected structures.	This action will support the reduction/offset of GHG emissions from council-owned social housing. The action is likely to have a slight positive environmental effect - having regard to the share of GHG emission reductions that can be supported via this action relative to national GHG emission reduction targets and requirements. This action supports refurbishment or retrofitting of housing and building stock. There is the potential for light and air pollution during retrofitting works. Retrofitting works may also negatively affect the appropriate conservation of protected structures. Therefore there is also scope for there to be negative effects if unmitigated.	0	-	0	-	0	0	-	-	0	0	+
3.13	Facilitate construction of a good housing mix of energy efficient emission homes to accommodate population growth, including build-to-rent and shared accommodation, social housing, student accommodation, specialist housing, conversions, over-the-shop and infill development, according to the principles of the City Development Plan for compact growth. Promote - through control or influence as appropriate - the carrying out of development supported by this action in a manner that accords with relevant planning and environmental protection requirements.	This action has the potential to offset potential GHG emissions associated with construction of new development - leading to positive effects on climate and local air quality. The action has the potential to support or underpin various types of development that may have various environmental effects, in the absence of appropriate design or environmental mitigation - during both the construction and operational phases of development.	0	-	0	-	0	0	-	-	0	0	+
3.14	Maintain ISO 50001 Energy Management Standard for Cork City Council	This will action promote organizational energy efficiency within the local authority organization. This action has the potential to support organizational GHG emission reductions. The action is not likely to have an adverse ecological effect.	0	0	0	0	0	0	+	0	0	0	0

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
3.15	Complete the rollout of energy efficient LED lanterns for the remaining 49% of public lighting stock, while ensuring the lumen levels and spectral range are maintained or reduced/controlled to avoid effects to biodiversity.	This action will support the local authority in reducing its organisational GHG emissions in line with climate policy and legislation and emission reduction targets. The action is likely to have a slight positive environmental effect in terms of GHG emissions however, the spectrum of light from LED sources has the potential to impact nocturnal species. Therefore there is also scope for there to be slight negative effects if unmitigated.	0	-	0	0	0	0	+	0	0	0	0
3.16	Implement and complete the Docklands Framework Masterplan, which will have a strong emphasis on sustainability, biodiversity, environmental protection and achievement of near-zero objectives.	The creation of a masterplan will have no discernible environmental effect in and of itself. It will, however, underpin effective delivery of the goals and objectives of the actions contained within the CAP. The masterplan may support the carrying out of a range of development which could have various negative environmental effects in the absence of good design or appropriate environmental mitigation, including effects on biodiversity, water quality or landscape character/visual amenity.	0	0	0	0	0	0	0	0	0	0	0
3.17	Implement the South Docklands Drainage and Flood Protection Strategy, having due regard to opportunities to promote nature-based solutions and Sustainable Drainage Systems, and environmental sensitivities, including water quality, biodiversity, European sites, aquatic ecology, visual amenity and recreation and amenity value.	The progression of this drainage and flood resilience related action has the potential to lead to significant development taking place, including development in the vicinity of water bodies. In the absence of any mitigation, such development could potentially have a variety of significant, negative environmental effects, including effects on: water quality, biodiversity, including flora and fauna reliant on aquatic eco-systems; the receiving air environment (due to the generation of construction dust), the receiving noise environment (due to the generation of construction phase noise), and the receiving human environment. Drainage and flood resilience actions have the potential to have positive environmental effects. The possible development of nature based solutions and SuDS as part of a flood risk management policy has the potential to have slight to significant, positive effects on biodiversity and water quality.	+	-	-	0	0	0	-	+/-	+	0	0

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
		The delivery of this action has the potential to reduce flood risk and prevent future flood events. Reducing flood risk can generate significant, positive effects for a variety of environmental receptors that could be negatively impacted by flood events; including human receptors, ecological receptors and cultural heritage assets. The implementation of a flood management policy is likely to have slight to significant positive effects on the receiving soils environment - through the prevention of erosion. This may have also a beneficial impact on inter-related environmental components that could potentially be impacted by fluvial erosion.											
3.18	Publication and implementation of South Docklands Energy Masterplan, having due regard to environmental sensitivities such as landscape character and visual amenity, biodiversity, European sites, and built heritage.	This action has the potential to result in a slight/moderate reduction GHG emissions. This action may result in the development of renewable energy facilities in the area which may have separate, negative environmental effects such (such as glint/glare from solar panels), effects on water quality, air quality and noise during any construction works involved.	0	-	-	0	0	0	-	-	+	0	+
3.19	Develop a digital twin of the South Docklands in support of a new 'Positive Energy District' under the TIPS4PED EU project, .	This promotional action will have no environmental effect in and of itself.	0	0	0	0	0	0	0	0	0	0	0
3.20	Encourage installation of solar/renewables generation, rainwater harvesting, or other green use, in existing properties by: consideration of planning regulations; review of incentives to overcome financial barriers; and support to increase contractor capacity, among others.	This action supports the transition to renewable energy use in existing properties. This may result in slight-moderate lowering of GHG emissions related to energy within the City.	0	0	0	0	0	0	0	0	0	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
3.21	Mainstream Green and Blue Infrastructure priorities into the design and delivery of all built environment and energy projects in the city, supported by the rollout and adoption of decision-support tools like the GBI Hub. Demonstrate mainstreaming in priority projects including: Lee to Sea Greenway; Vernon Mount Park Project; Decarbonising Zone; and all new Rewilding, Rewetting and Reafforestation projects in the city. Have due regard to opportunities to enhance tourism, recreation and heritage value associated with supported projects, and environmental sensitivities such as the receiving water environment, local air quality, biodiversity, European site, and heritage related sensitivities.	This action supports the development of additional green and blue infrastructure. In the absence of any mitigation, works involved in the construction of such infrastructures have the potential to generate a range of slight to significant environmental effects, including noise impacts, local air quality impacts (through the generation of construction dust), impacts on water quality (through the run-off of silt and cement based products during construction), biodiversity impacts, cultural heritage asset impacts and impacts on traffic and transport (through the temporary creation of traffic diversions and congestion). The delivery of an expanded, safe active travel network has the potential to have a significant positive effect on population and human health through the promotion of modes of travel that benefit human health. It also has the potential to promote the use of sustainable and active travel modes in the community, encourage modal shift and support the reduction of vehicle related emissions. This is likely to have a slight to moderate positive environmental effect - having regard to the share of GHG emission reductions that can be supported via this action relative to national GHG emission reduction targets and requirements. The delivery of such green/blue infrastructure has the potential to generate very significant positive tourism, recreation and cultural heritage related benefits/effects.	+	+/-	0	0	0	0	-	-	+	+	+
3.22	Support and resource the Energy Cork Cluster in their activities to mobilise stakeholders in the energy sector to co-operate and implement climate action measures.	This action supports reduction and/or offset of industrial GHG emissions.	0	0	0	0	0	0	0	0	0	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
3.23	Co-operate with SEAI to increase the number and activity levels of Sustainable Energy Communities (SECs) in Cork City in support of Action BE/23/8 of the national Climate Action Plan. Facilitate project adherence to planning and environmental protection requirements.	This promotional/engagement action will support the effective delivery of climate action in the community. The adoption of this action will support the full realization of the plan vision in the community. The carrying out of the type of energy efficiency upgrades or small-scale renewable energy development supported by this programme has some potential to have negative localised effects - such as impacts on protected structures, or localized impacts on visual amenity or biodiversity, in the absence of mitigation.	0	-	-	0	0	+	-	-	+	0	+
3.24	Work with stakeholders to promote effective energy management in SMEs in Cork, e.g. SME Energy Champions	This action will support the development of sustainability management plans for local enterprises. The adoption of this action can potentially result in reduced energy consumption and prevent GHG emissions. The action is likely to have a slight positive effect on climate - having regard to the share of GHG emission reductions that can be supported via this action relative to national GHG emission reduction targets and requirements.	0	0	0	0	0	0	0	0	0	0	+
3.25	Implement the Morrison's Island Public Realm Scheme, having due regard to the need to promote nature based solutions and Sustainable Drainage Systems, and environmental sensitivities, including water quality, biodiversity, European sites, riparian corridors and aquatic ecology, visual amenity and recreation and amenity value.	The progression of this public real and flood resilience related action has the potential to lead to significant development taking place. In the absence of any mitigation, such development could potentially have a variety of significant, negative environmental effects, including effects on: water quality, biodiversity, including flora and fauna reliant on aquatic eco-systems; the receiving air environment (due to the generation of construction dust), the receiving noise environment (due to the generation of construction phase noise), and the receiving human environment. Flood resilience actions have the potential to have positive environmental effects. The possible development of nature based solutions and SuDS as part of a flood risk management policy has the potential to have slight to significant, positive effects on biodiversity and water quality.	0	-	-	0	0	+	-	-	+	0	0

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
		The delivery of this action has the potential to reduce flood risk and prevent future flood events. Reducing flood risk can generate significant, positive effects for a variety of environmental receptors that could be negatively impacted by flood events; including human receptors, ecological receptors and cultural heritage assets. The implementation of a flood management policy is likely to have slight to significant positive effects on the receiving soils environment - through the prevention of erosion. This may have also a beneficial impact on inter-related environmental components that could potentially be impacted by fluvial erosion.											
3.26	Facilitate the OPW's Lower Lee Flood Relief Scheme (LLFRS) as appropriate, having due regard to the need to promote nature-based solutions and Sustainable Drainage Systems, and environmental sensitivities, including water quality, biodiversity, European sites, riparian corridors and aquatic ecology, visual amenity and recreation and amenity value.	The progression of this flood resilience related action has the potential to lead to significant development taking place. In the absence of any mitigation, such development could potentially have a variety of significant, negative environmental effects, including effects on: water quality, biodiversity, including flora and fauna reliant on aquatic eco-systems; the receiving air environment (due to the generation of construction dust), the receiving noise environment (due to the generation of construction phase noise), and the receiving human environment. Flood resilience action has the potential to have positive environmental effects. The possible development of nature based solutions and SuDS as part of a flood risk management policy has the potential to have slight to significant, positive effects on biodiversity and water quality. The delivery of flood resilience action has the potential to reduce flood risk and prevent future flood events. Reducing flood risk can generate significant, positive effects for a variety of environmental receptors that could be negatively impacted by flood events; including human receptors, ecological receptors and cultural heritage assets.	0	-	-	0	0	+	-	-	+	0	0
3.27	Facilitate flood relief works in Glanmire, having due regard to the need to promote nature-based solutions and Sustainable Drainage Systems, and environmental sensitivities, including water quality, biodiversity, European sites, riparian corridors and aquatic ecology, visual amenity and recreation and amenity value.		-	-	0	0	+	-	-	+	0	0	

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
		The implementation of a flood management policy is likely to have slight to significant positive effects on the receiving soils environment - through the prevention of erosion. This may have also a beneficial impact on inter-related environmental components that could potentially be impacted by fluvial erosion.											
3.28	Create a climate risk register for all built heritage and cultural assets in the city.	This action will have no environmental effect when considered in isolation. It underpins the safeguarding of built heritage and cultural assets within the functional area of the City Council.	0	0	0	0	0	0	0	0	0	0	0
3.29	Identify all local authority-owned heritage assets; prepare risk and management plans as appropriate, plan and carry out regular programmes of inspection, maintenance and conservation to develop climate resilience.	This action supports the continued protection and enhancement of Cork's existing cultural heritage sites.	0	-	0	+	0	0	0	0	0	0	0
3.30	Create guidelines for non-specialists on sensitive adaptation, recovery from climate-change impacts and sustainable reuse and energy conservation in historic buildings.	This educational action supports protection and enhancement of historic buildings in the Community. This may serve to benefit cultural heritage whilst also leading to energy reductions. In the absence of appropriate mitigation, any retrofitting works may have slight to significant impacts on protected structures, the heritage context in which protected structures sit or on protected species that may be present in old buildings. The action, as defined, promotes sensitive adaption however.	0	0	0	+/-	0	0	0	0	0	0	0
3.31	Continue to improve energy and performance and build climate resilience in local architectural heritage through management and administration of the Built Heritage Investment Scheme, Historic Structures Fund and any other relevant funds introduced.	This action will work to protect existing heritage assets against potential harm caused by climate change. In the absence of appropriate mitigation, any retrofitting works may have slight to significant impacts on protected structures, the heritage context in which protected structures sit or on protected species that may be present in old buildings.	0	-	0	-	0	0	0	0	0	0	0

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
	Promote adherence to planning and environmental protection requirements during retrofitting projects supported by this action, as appropriate.												

Key: PHH - Population & Human Health. BFF - Biodiversity, Flora & Fauna. L - Landscape, Seascape & Visual Amenity. CH - Cultural Heritage - Archaeology & Architectural. S - Soils. LU - Land Use. AQN - Air Quality and Noise. W - Water. MA - Material Assets. TR- Tourism & Recreation. CC - Climate Change.

Travel and Mobility

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
4.1	Publish and implement the actions arising from the forthcoming Cork City EV-Charging Infrastructure Strategy, having due regard to universal access requirements, environmental sensitivities such as the receiving water environment, biodiversity, European sites, local air quality and built/cultural heritage, and available grid capacity.	The development of this strategy has the potential to lead to the development of multiple charging points and ancillary electrical infrastructure including grid connection routes. In the absence of any mitigation, works involved in the construction of additional charging point infrastructure have the potential to generate a range of slight to significant environmental effects, including noise impacts, local air quality impacts (through the generation of construction dust), impacts on water quality (through the run-off of silt and cement based products during construction), and biodiversity impacts. The delivery of good network of charging infrastructure has the potential to promote the use of sustainable travel modes in the community, encourage modal shift and support the reduction of vehicle related emissions. This is likely to have a slight to moderate positive environmental effect - having regard to the share of GHG emission reductions that can be supported via this action relative to national GHG emission reduction targets and requirements. The Cork City Car Share and Shared MicroMobility Strategies promote modal shift and the use of alternative methods of travel such as carpooling, car sharing, and active travel which may lead to slight reductions in GHG emissions associated with transport using ICE-based vehicles.	+	0	0	0	0	0	+/-	+/-	+	+	+
4.2	Publish and implement the actions arising from the forthcoming Cork City Car-Share Strategy, and the Cork City Shared Micro-Mobility Strategy, having due regard to universal access requirements, environmental sensitivities such as the receiving water environment, biodiversity, European sites, local	This action has the potential to encourage modal shift and the use of active travel networks. This action supports the development of additional pedestrian and cycling infrastructure. In the absence of any mitigation, works involved in the construction of additional pedestrian or cycling infrastructure have the potential to generate a range of slight to significant environmental effects, including noise impacts (due to construction plant operation), local air	+	-	0	0	0	0	+/-	-	+	+	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
	air quality and built/cultural heritage, and available grid capacity.	quality impacts (through the generation of construction dust), impacts on water quality (through the run-off of silt and cement based products during construction) and biodiversity impacts. This action also has the potential to generate some degree of positive environmental effect due to a reduction in vehicle use.											
4.3	Replace all City Council diesel and petrol vehicles and machinery with sustainable lower emissions alternatives. Monitor advances in the development of EV, biomethane, hydrogen, etc. technology, whilst ensuring appropriate end-of-life management practices are in place for Electric Vehicles under the Council's ownership.	This action will support the local authority in reducing its organisational GHG emissions in line with climate policy and legislation and emission reduction targets. This has the potential to generate some degree of positive effects on climate and local air quality. Electric vehicles have the potential to generate a variety of uncertain lifecycle impacts, including end-of-life related impacts. The scalable adoption of renewable fuel based vehicles may lead to unintended lifecycle impacts, such as land use/land use change related impacts or impacts on material assets.	0	0	0	0	0	0	+	0	0	0	+/-
4.4	Promote and monitor the staff use of the City Council's: - EV fleet for business travel. - Staff bike fleet (incl. e-bikes) for business travel.	This action has the potential to increase the uptake in Council-operated Electric Vehicles and will support a modal shift and reduction in vehicle related GHG emissions within the local authority.											
4.5	Complete design, plan and implement active travel infrastructure per the CMATS, Cork Cycling Network Plan, Pedestrian Network Plan, Cycle Connects and the National Cycle Network, inclusive of appropriate supportive elements such as wayfinding, benches, water fountains. Promote the need to have active-travel development carried out in a manner that has due regard to environmental sensitivities such as	This action has the potential to encourage modal shift and the use of active travel networks. This action supports the development of additional pedestrian and cycling infrastructure. In the absence of any mitigation, works involved in the construction of additional pedestrian or cycling infrastructure have the potential to generate a range of slight to significant environmental effects, including noise impacts (due to construction plant operation), local air quality impacts (through the generation of construction dust), impacts on water quality (through the run-off of silt	+	-	0	0	0	0	+/-	-	0	+	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
	local human receptors, Biodiversity, European sites, water quality and hydrology, existing traffic and transport conditions and amenity value.	and cement based products during construction) and biodiversity impacts. This action also has the potential to generate some degree of positive environmental effect due to a reduction in vehicle use.											
4.6	Establish a cargo-bike loan scheme for businesses and public-sector bodies. Explore alternative models, e.g. public cargo-bike hire scheme.	This action facilitates modal shift and the use of active travel. This may lead to slight reductions in GHG emissions, benefitting human health and leading to improvements in local air quality.	+	0	0	0	0	0	+	0	0	0	+
4.7	Increase the provision of secure bike parking in strategic locations across the city.	This action facilitates modal shift and the use of active travel. This may lead to slight reductions in GHG emissions, benefitting human health and leading to improvements in local air quality. Works supported by this action are likely to be minor in nature and are unlikely to result in significant environmental effects.	+	0	0	0	0	0	+	0	0	0	+
4.8	Support the delivery of enhanced public transport services in Cork City as envisaged under the Bus Connects Cork programme of works. Promote climate action co-benefit opportunities and adherence to relevant planning and environmental protection requirements using local authority functions, as appropriate.	This action facilitates modal shift and the use of public transport facilities. This may lead to reductions in GHG emissions, benefitting human health and leading to improvements in local air quality. Infrastructural development supported by this action may lead to a variety of negative environmental effects, including construction related effects (E.g., noise, dust, SW run-off), effects on biodiversity and European sites, and effects on material assets and traffic and transport conditions - in the absence of good design or appropriate environmental mitigation.	+	0	0	0	0	0	+	0	0	0	+
4.9	Support the delivery of the measures identified in the Cork Metropolitan Area Transport Strategy including the delivery of Cork Light Rail Transit System. Promote climate action co-benefit opportunities and adherence to relevant planning and environmental protection	This action facilitates modal shift and the use of public transport facilities. This may lead to reductions in GHG emissions, benefitting human health and leading to improvements in local air quality. Infrastructural development supported by this action may lead to a variety of negative environmental effects, including construction related effects (E.g., noise, dust, SW run-off), effects on biodiversity and European sites, and effects on material assets and traffic and transport	+	0	0	0	0	0	+	0	0	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
	requirements using local authority functions, as appropriate.	conditions - in the absence of good design or appropriate environmental mitigation.											
4.10	Support the pilot sustainable mobility Pathfinder Project for third-level institutes with a view to implementing the learnings in other areas, having due regard to environmental sensitivities such as local human receptors, Biodiversity, European sites, water quality and hydrology, existing traffic and transport conditions and amenity value.	This action will support the reduction/offset of GHG emissions. The action is likely to have a slight positive environmental effect - having regard to the share of GHG emission reductions that can be supported via this action relative to national GHG emission reduction targets and requirements. There is the potential for a variety of slight to potentially significant environmental impacts during construction projects that may be associated with this action.	+	0	0	0	0	0	+	0	0	0	+
4.11	Accelerate the implementation of safe routes to school/cycle buses and greenways to further enhance localised active-travel infrastructure, including the promotion and support for the Active Travel Green Flags, having due regard to environmental sensitivities such as the receiving water environment, biodiversity, European sites, local air quality and heritage considerations.	This action has the potential to encourage modal shift and the use of active travel networks. This action supports the development of additional cycling infrastructure. In the absence of any mitigation, works involved in the construction of additional cycling infrastructure have the potential to generate a range of slight to significant environmental effects, including noise impacts, local air quality impacts (through the generation of construction dust), impacts on water quality (through the run-off of silt and cement based products during construction) and biodiversity impacts. This action also has the potential to generate some degree of positive environmental effect due to a reduction in vehicle use. The action has the potential to have a positive impact on population and human health by reducing traffic risk at schools.	+	0	0	0	0	0	+	0	0	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
4.12	Support public engagement and behaviour change initiatives that promote sustainable transport and lead to greater use of walking, cycling and public transport, such as Cork Bike Week, European Mobility Week, Lifelong Learning Festival.	This is an engagement/promotional based action that has the potential to encourage modal shift and GHG emission reductions leading to positive climate, human health and local air quality effects.	+	0	0	0	0	0	0	0	0	0	+
4.13	Increase frequency of pedestrianisation periods for the city centre, and pilot in suburban areas and urban towns. Design and deliver such schemes in accordance with relevant good practice guidelines. Analyse and publish results.	This action promotes modal shift and the use of public transport or active travel in the City Centre. This may lead to slight reductions in GHG emissions associated with private ICE-based vehicle use. If inappropriately designed or planned, this action could lead to negative effects on traffic and transport conditions.	0	0	0	0	0	0	0	0	0	0	+
4.14	Install a sensor network to monitor and display to the public cycle lane usage across the city.	This promotional action encourages the use of active travel infrastructure in the City. Considering the scale of development involved, this action is not considered to have any real environmental effects in and of itself.	0	0	0	0	0	0	0	0	0	0	+
4.15	Ensure all new developments prioritise walking and cycling integration with the surrounding land uses to minimise travel distances by foot/bike.	This action supports modal shift and active travel which serves to benefit human health, air quality, and may lead to some degree of GHG emissions lowering. Works involved in the production of additional active travel infrastructure has the potential to have adverse effects on the receiving environment, noise, and biodiversity, if planned incorrectly.	+	-	0	0	0	0	+/-	-	+	+	+
4.16	Review the management and operation of the existing on-street parking controls in the city to promote access by alternative travel modes.	This review-based action will have no discernible environmental effects in and of itself. The action may ultimately lead to modal shift and active travel-related actions which align with the goals and objectives of this Plan	0	0	0	0	0	0	0	0	0	0	0
4.17	Engage with the Southern Regional Assembly's pathfinder Project 'The Smart and Sustainable Mobility Accelerator programme'.	This engagement action will underpin and support the effective delivery of climate action in the community by promoting sustainable travel.	0	0	0	0	0	0	0	0	0	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
		The adoption of this action will support the full realisation of the vision and main objectives of the plan in the community but will have no discernible environmental effects in and of itself.											
4.18	In tandem, with the preparation of individual Framework Masterplans to support the planned growth of Cork City, Local Transport Plans will be prepared prioritising accessibility by active and sustainable travel modes.	The creation of a masterplan will have no discernible environmental effect in and of itself. It will, however, underpin effective delivery of the goals and objectives of the actions contained within the CAP. The masterplan may support the carrying out of a range of development which could have various negative environmental effects in the absence of good design or appropriate environmental mitigation, including effects on biodiversity, water quality or landscape character/visual amenity.	+	+/-	0	0	0	0	+/-	-	0	+	+
4.19	Support the delivery of Transit Orientated Development at key nodes along the existing and planned public transport system in the city.	Transit Oriented Development (TOD) involves the creation of compact, walkable, pedestrian-oriented, mixed-use communities cantered around high quality public transport systems. This lowers the dependence of people on cars as their primary mode of transport, which may result in slight-moderate reductions in GHG emissions associated with the use of ICE-based vehicles on a day-to-day basis.	+	0	0	0	0	0	0	0	0	0	+

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Natural Environment and Resource Management

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
5.1	Support and implement the National Biodiversity Action Plan 2023 - 2027.	This action promotes the enhancement and protection of biodiversity within the City. This may lead to slight/moderate benefits for biodiversity locally.	0	+	+	0	0	0	0	0	0	0	0
5.2	Implement Cork City Council's Heritage and Biodiversity Plan 2021-2026, including the protection, restoration and enhancement of rivers and wetlands; protection and promotion of designated habitats and species.	This action promotes the enhancement and protection of biodiversity cultural heritage within the City. This may lead to slight/moderate benefits for both local biodiversity cultural heritage amenities.	0	+	+	+	0	0	0	0	0	0	0
5.3	Fully implement, monitor and report on local actions from the All-Ireland Pollinator Plan 2021-2025, focusing on monitoring of the Council's commitments under the plan, review of pesticide use, incorporation of pollinator friendly and native species planting in new developments, and identification of suitable locations for re-wilding in the city.	This action has the potential to have wide ranging slight to significant positive effects on local biodiversity. This action has the potential to have wide ranging slight to moderate effects on local biodiversity, water quality, soil, flora, fauna, etc. Limiting and regulating the use of herbicides and pesticides would prevent to some degree the occurrence of environmental pollution incidents due to the use of these substances.	0	+	+	0	0	0	0	0	0	0	+
5.4	Implement the Cork City Council's Air Quality Strategy (2021-2026), particularly with regard to public awareness of air quality in the city and transport/sustainable travel initiatives in the CMATS, Cork Cycle Network Plan, etc.	This action will support improvements in air quality and has the potential to generate a slight positive environmental effect in terms of air quality. This action may prevent GHG emissions and is likely to therefore have a slight positive effect on climate.	0	0	0	0	0	0	+	0	0	0	+
5.5	Publish and implement the actions prioritised in Cork City's first Trees Strategy, including: a) a detailed inventory of tree stock for analysis of ecosystem services provided;	This action has the potential to have wide ranging slight to moderate significant effects on local biodiversity, and slight to significant effects on landscape character and visual amenity. Promoting vegetative growth may result in an additional degree of carbon sequestration, marginally offsetting the effects of GHG emissions.	+	+	+	0	+/-	+	+	+/-	0	+	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
	b) city-wide analysis of available planting sites; c) prepare long-term canopy cover plan; d) review development standards to protect existing trees and management standards to maximise quality and longevity of existing stock. e) Take measures to promote the use of native species over non-natives, having due regard for water quality and soil stability issues whilst undertaking the planning process.	Improper planning may lead to acidification of rivers/streams in some instances and soil instability. Due regard should be given to these issues during the planning process.											
5.6	Incorporate climate adaptation and mitigation considerations into the forthcoming updated Cork City Landscape Strategy.	This action supports the realisation of the goals and visions of the actions contained within the plan. This action may lead to reductions in GHG emissions and environmental benefits, broadly, depending on the contents of the strategy	0	0	0	0	0	0	0	0	0	0	+
5.7	Complete and publish the detailed Habitat and Risk Register Assessment, including mapping/GIS, of priority areas for the city and a risk register of all natural heritage assets at a habitat level.	This action is likely to generate positive effects for biodiversity, flora, and fauna, as well as climate action.	0	+	0	0	0	0	0	0	0	0	+
5.8	Establish a commitment for, at minimum, no net loss of biodiversity in all new developments in the city, and where possible, net restoration, with costs for same built into all project plans.	This action has the potential to lead to positive effects on local biodiversity.	0	+	0	0	0	0	-	-	0	0	0
5.9	Undertake strategic land procurement for the protection of nature and biodiversity.	This action has the potential to lead to positive effects on local biodiversity.	0	+	+	0	0	0	0	0	0	0	0

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
5.10	Incorporate sustainable urban development systems (SuDS), such as water-sensitive urban design (WSUD), in every new development in the city, as per Objective 9.4 of the Cork City Development Plan (2022-2028). Support delivery of this action through establishment of a cross-departmental SuDS working group to advise on implementation. Promote the adoption of nature-based solutions/protection of biodiversity and avoidance of habitat fragmentation during SuDS projects.	Thie action has the potential to lead to positive impacts on water quality and hydrology and biodiversity mainly.	0	+	0	0	0	0	0	+	0	0	0
5.11	To reduce light spill into adjacent green areas, all Public Lighting lanterns installed will have zero upward lighting pollution. Louvres will be added to lanterns in a case-by-case scenario to reduce light spill. All new LED lanterns installed will be 3000 Kelvin in colour temperature to reduce the impact on bats, in particular.	This action allows for the enhancement and continued development of biodiversity and wildlife in the city. It serves to reduce light pollution which may have slight benefits for human health.	+	+	0	0	0	0	0	0	0	0	0
5.12	Install smart lighting control systems (as on Blackrock to Mahon Greenway) on all new greenways to reduce effect of light on local fauna and reduce energy consumption.	This action allows for the enhancement and continued development of biodiversity and wildlife in the city. It serves to reduce light pollution which will lead to reductions in energy usage, thereby leading to some degree of GHG emissions reductions.	0	+	0	0	0	0	0	0	0	0	+
5.13	Reduce risk of heat stress in prioritised areas of higher temperature in the city through appropriate tree/hedgerow/vegetation planting.	This action serves to reduce the effects of the 'urban heat island effect', thereby benefitting human health. There will also be the added indirect benefit to urban biodiversity, landscape/visual impacts, and air quality through the planting of trees and hedgerows.	+	+	+	0	0	0	+	0	0	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
5.14	Initiate delivery of the proposed Northwest Regional Park, having due regard to relevant planning and environmental protection requirements, and opportunities to promote climate action co-benefits.	This action facilitates the development of the Northwest Regional Park. Such a development may result in positive effects for human health, tourism/recreation, and biodiversity. In the absence of any mitigation, works involved in the construction of such infrastructure have the potential to generate a range of slight to significant environmental effects, including noise impacts, local air quality impacts (through the generation of construction dust), impacts on water quality (through the run-off of silt and cement based products during construction), biodiversity impacts, cultural heritage asset impacts and impacts on traffic and transport (through the temporary creation of traffic diversions and congestion). The operation of an amenity parkland may result in changes to traffic and transport conditions.	+	+/-	+/-	0	0	+	+/-	-	0	+	+
5.15	Provide citizen-science training workshops in relation to pollinators and any other invertebrates for community groups, individuals and any other interested group to identify, record and submit records to the National Biodiversity Data Centre database.	This action has the potential to generate some degree of positive effects on climate and biodiversity.	0	+	0	0	0	0	0	0	0	0	+
5.16	Provide training for Parks outdoor staff on biodiversity topics, including on alien invasive plant species.	This action has the potential to generate some degree of positive effects on biodiversity.	0	+	0	0	0	0	0	0	0	0	0
5.17	Carry out a detailed survey of all tree stock within the city's public realm.	This action will have no real environmental effect when considered in isolation.	0	0	0	0	0	0	0	0	0	0	0
5.18	Carry out a detailed survey on the condition and tree maintenance on all trees within the city's public realm.	This action will have no real environmental effect when considered in isolation.	0	0	0	0	0	0	0	0	0	0	0

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
5.19	Carry out a detailed study on carbon sequestration calculations of the tree stock within the city's public realm.	This action will have no real environmental effect when considered in isolation.	0	0	0	0	0	0	0	0	0	0	0
5.20	As a minimum, maintain the existing five Green Flag Parks in the city, with a view to increasing the number.	This action serves to protect and enhance biodiversity and greenspaces within Cork City.	0	0	0	0	0	0	0	0	0	0	0
5.21	Implement and monitor bio-security measurements for any plants and trees planted within the public realm.	This action serves to protect and enhance biodiversity in Cork City.	0	+	0	0	0	0	0	0	0	0	0
5.22	Identify and purchase suitable land for sustainable woodland creation. Take measures to promote the use of native species over non-natives and having due regard for water quality and soil stability issues whilst undertaking the planning process.	This action has the potential to have wide ranging slight to moderate significant effects on local biodiversity, and slight to significant effects on landscape character and visual amenity. Promoting vegetative growth may result in an additional degree of carbon sequestration, marginally offsetting the effects of GHG emissions. Improper planning may lead to acidification of rivers/streams in some instances and soil instability. Due regard should be given to these issues during the planning process.	+	+	+	0	+/-	+	+	+/-	0	+	+
5.23	Investigate, and where possible implement, the use of low-carbon material in road construction.	This action has the potential to result in slight-moderate lowering of GHG emissions.											
5.24	Support the Lifetime Lab's Education Programme, including the Carnival of Science and Green Schools programme.	This action will support the promotion of biodiversity and climate issues awareness and has the potential to generate some degree of positive effects on biodiversity and climate.	0	+	0	0	0	0	0	0	0	0	+
5.25	Implement the National Waste Management Plan for a Circular Economy, supporting local initiatives to reduce waste from all sectors, including construction and fashion.	This action is likely to promote effective waste management and waster/material circularity. Any measures that improve resource efficiency/circularity will broadly support the reduction of lifecycle GHG emissions associated with the production of materials and goods. This is likely to result in a positive environmental effect generally.	0	0	0	0	0	0	0	0	0	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
	Promote and expand support for a circular economy by encouraging the reduce-reuse-recycle principle at the community level. Promote good waste-management practices and adherence to the Waste Management Act.	The inappropriate management/reuse of waste, such as construction and demolition waste may lead to negative environmental effects, such as effects on air, water or soil quality.											
5.26	Investigate the possibility of introducing a ban on single-use cups as a condition for licenced commercial events. Event organisers who serve beverages would be required to provide reusable/returnable alternatives.	This research-based action will have no discernible environmental effects when considered in isolation. It may lead to reductions in plastic waste generation and promote resource efficiency, if implemented.											
5.27	Ensure that existing licensing requirements for segregated waste at events are implemented. Work with unlicensed events to encourage use of waste segregation.	This action is likely to promote effective waste management and waste/material circularity. Any measures that improve resource efficiency/circularity will broadly support the reduction of lifecycle GHG emissions associated with the production of materials and goods. This is likely to result in a positive environmental effect generally.	0	0	0	0	0	0	0	0	0	0	+
5.28	Advocate for regulations to allow controlled on-site reuse of segregated inert and environmentally non-hazardous construction and demolition waste.	This action is likely to promote effective waste management and waster/material circularity. Any measures that improve resource efficiency/circularity will broadly support the reduction of lifecycle GHG emissions associated with the production of materials and goods. This is likely to result in a positive environmental effect generally. The inappropriate management/reuse of waste, such as construction and demolition waste may lead to negative environmental effects, such as effects on air, water or soil quality.											
5.29	Enforce requirements under Nitrates Directives and septic-tank and well-water control measures on all farms in the city.	This action serves to protect surface- and ground-water quality at high risk of nitrate pollution. This serves to protect biodiversity and human health.	+	+	0	0	0	0	0	+	0	0	0

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
5.30	Support Cork Food Policy Council in feasibility study on the development of a Local Food Sustainability Co-operative/hub.	This action will have no real environmental effect in and of itself. It serves to underpin potential development of such a hub that may lead to increases in sustainable and locally-produced goods and foods.	0	0	0	0	0	0	0	0	0	0	0

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