



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE &
PLANNING

LOCAL AUTHORITY CLIMATE ACTION PLAN

SEA Environmental Report

Prepared for:
Limerick City and County Council



Comhairle Cathrach
& Contae **Luimnigh**

Limerick City
& County Council

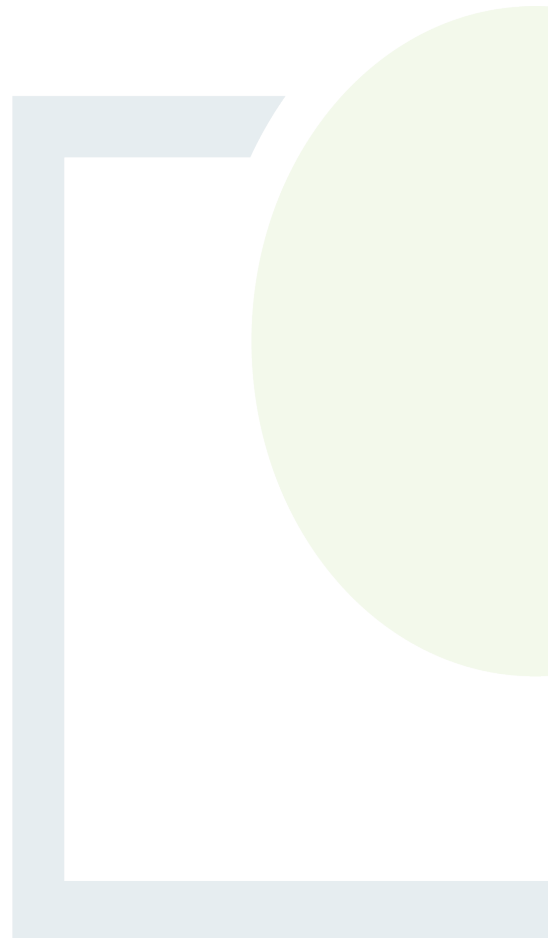
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Core House, Pouladuff Road, Cork, T12 D773, Ireland

T: +353 21 496 4133 | E: info@ftco.ie

CORK | DUBLIN | CARLOW

www.fehilytimoney.ie



SEA Environmental Report for the Local Authority Climate Action Plan 2024-2029 for Limerick City and County Council

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Abstract: Fehily Timoney and Company is pleased to submit this SEA Environmental Report for the LACAP 2024-2029 to Limerick City and County 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 Limerick City and County Council (LCCC) Draft Local Authority Climate Action Plan (herein referred to as the 'Plan' or 'LACAP') 2024-2029 for the Limerick 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 is 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 LCCC 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 LCCC is to meet the environmental, economic and social challenges of climate change. Through Just Transition, the county 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 county.
- 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.
- 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 LCCC'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 County.
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 county 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 County - 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 County. 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.
- The plan supports the carrying out of a variety of coastal protection related action, including action intended on mitigating coastal flood or erosion risk. These range of actions have the potential to have positive effects on biodiversity, water quality and the soils environment.
- The carrying out of coastal protection related 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 the water or biodiversity environment.
- 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, material asset, 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 County. 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 County 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

Limerick City and County Council (LCCC) has prepared the Draft Local Authority Climate Action Plan (herein referred to as the 'Plan' or 'LACAP') 2024-2029 for the Limerick City and County 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 LCCC 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 Directive⁵ 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 LCCC 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 Area and Main Objectives

Theme Area	Main Objective
Travel and Mobility	Modal Shift - Support the shift to more sustainable transport modes such as walking, cycling and public transport
	Support the provision of EV infrastructure and other infrastructure across the County to support the transition to zero emissions vehicles
	Future-proof the transport network to adapt to the risks posed by Climate change
	Transition all council fleet and Internal Combustion Machinery (ICE) to be zero emissions
Built Environment and Energy	Create a policy framework to support the transition to carbon neutrality across county
	Provide additional infrastructure to support communities to become climate resilient
	Increase the resilience of people, businesses and infrastructure to the effects of climate change
	Implement measures to reduce carbon emissions from all council buildings by 51% by 2030 and to be net zero by 2050
Governance and Leadership	Ensure that climate action is embedded in all Council actions, plans & policies
	Ensure that key stakeholders are actively engaged and involved in implementing climate action initiatives across the county
	Ensure that the adequate resources, structures and processes are in place to support accountability, transparency and delivery with regards to climate action
Communities and Partnership	Actively engage with communities on Climate Action Initiatives that impact them
	Deliver an education and awareness building programme across the county that all communities can access
	Support communities to actively engage with the Climate crisis



Theme Area	Main Objective
Natural Environment	Protect conserve, and enhance the County’s biodiversity and heritage through the implementation of effective climate-related actions
	A safe and healthy environment that is resilient to the effects of climate change
Environmental Management and Circular Economy	Reduce waste from the Limerick City and City and County Council operations and actively promote waste minimisation policies

2.4 Overall Vision and Strategic Outcomes

The overall vision of the Draft LACAP for LCCC is to meet the environmental, economic and social challenges of climate change. Through Just Transition, the county 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.

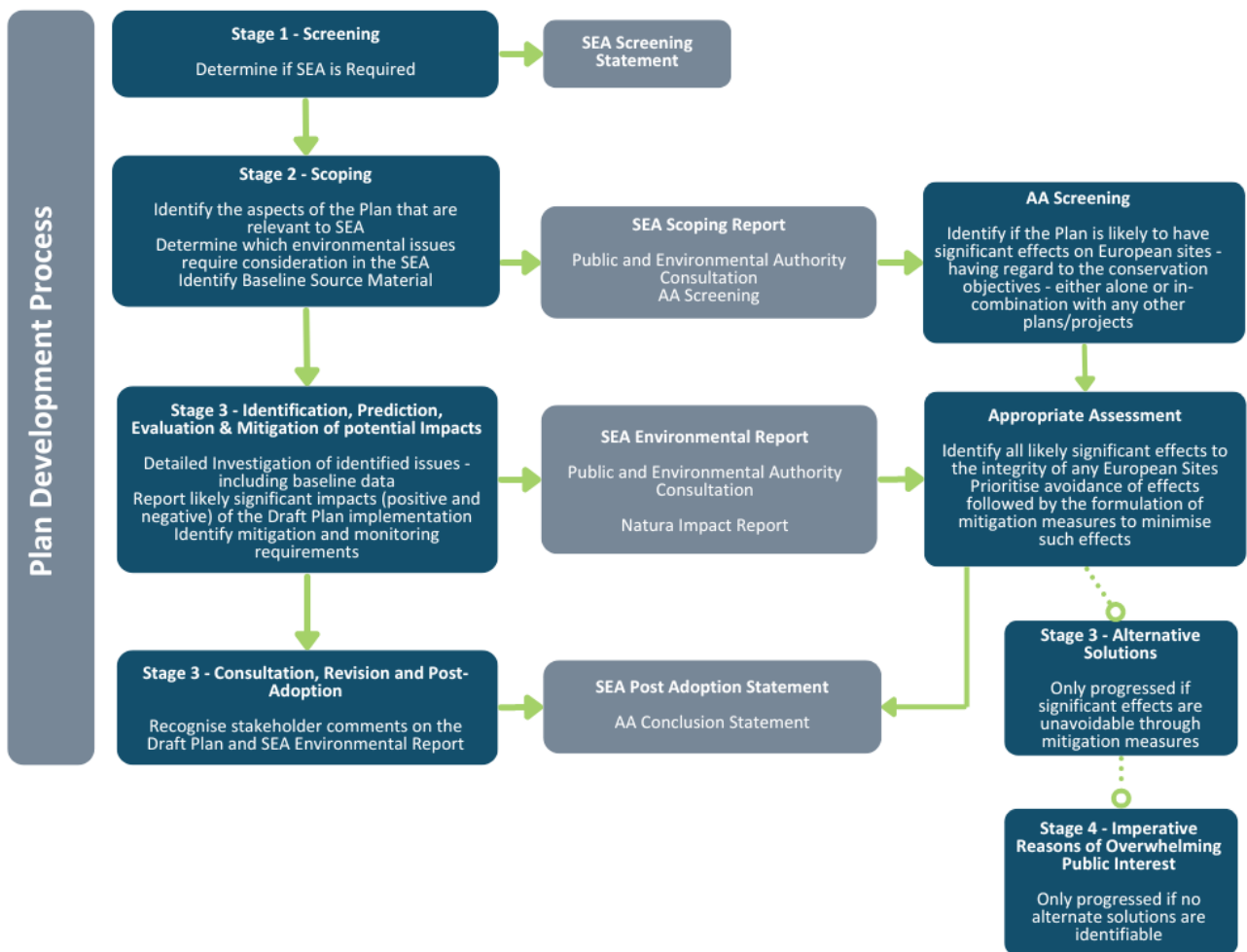


Figure 3-1: SEA and AA Stages and Key Deliverables



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 Guidelines⁶.

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 Assessment⁸.

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.

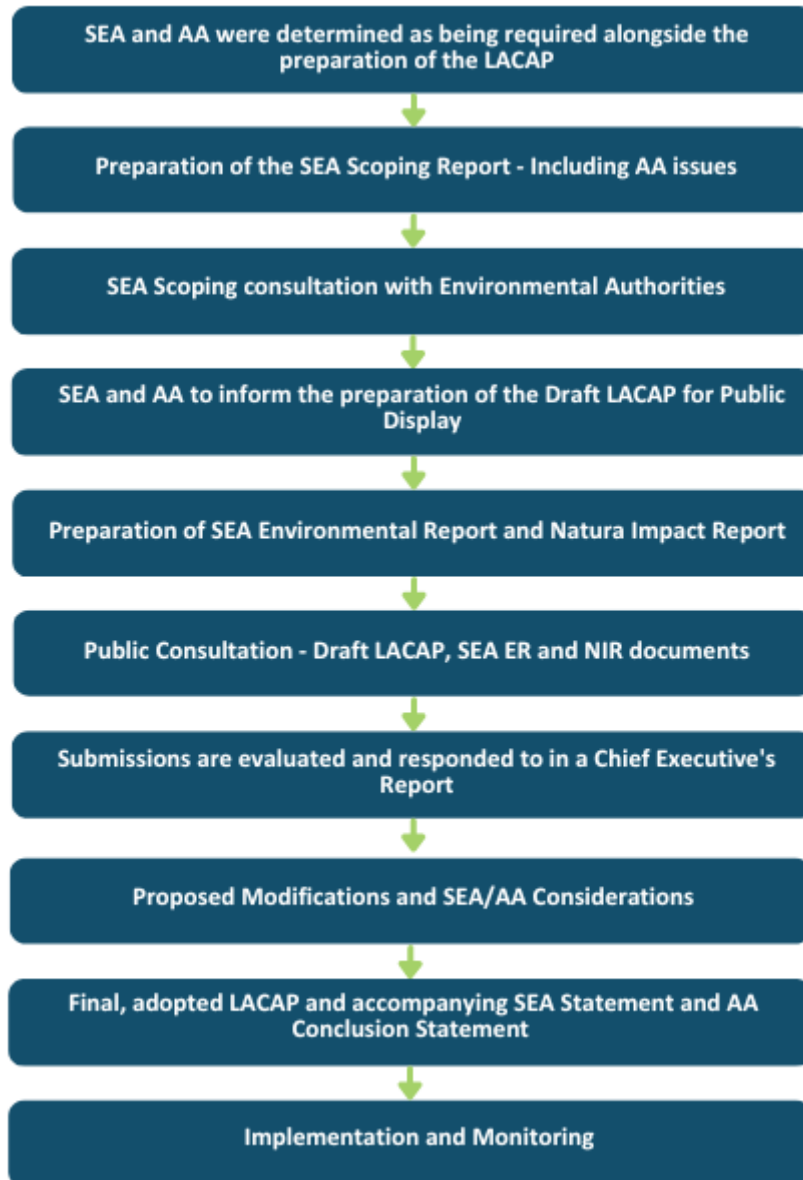


Figure 3-2: Overview of the SEA Process in the Review and Preparation of the Local Authority Climate Action Plan (including AA processes)

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 LCCC 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 county-wide geographic scope and the breadth of receiving environmental sensitivities within the county.

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 Guidelines¹⁰.

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)

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
- 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 Authorities¹¹
- 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.

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).

¹¹ Climate Action Regional Office (CARO) Atlantic Seaboard South.



- 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 LCCC'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 LCCC 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
<p>Bernie Guinan</p> <p>MSc, BSc. (Envi. Sci & Tech),</p> <p>Dip. Pollution Assessment Control</p> <p>Dip. Business Development</p>	<p>Project Director</p>	<p>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.</p>
<p>Andrew Torsney</p> <p>PhD, Ecotourism and visitor Behaviour Analysis, Trinity College Dublin, 2018 – Present (Part time)</p> <p>MRes Biodiversity and Conservation (Hons.), University of Leeds, UK, 2011 - 2012</p> <p>BSc Zoology, University College Dublin, 2007 - 2011</p>	<p>Project Manager</p>	<p>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 EclAs, 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.</p> <p>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 (<i>Hordeum secalinum</i>).</p>
<p>Richard Deeney</p> <p>Advanced Diploma in Planning and Environmental Law, Kings Inns, Ireland 2017</p> <p>B.Sc. First Class Honours Degree, Environmental Management, Dublin Institute of Technology, 2012</p> <p>Chartered Environmentalist, The Society for the Environment</p>	<p>SEA Team Lead</p>	<p>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.</p> <p>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.</p>
<p>Eunice Wong</p> <p>B.Sc. First Class Honours, Environmental Science and Sustainable Technology, Munster Technological University, 2022</p>	<p>Project Support</p>	<p>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.</p> <p>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.</p>



Name and Qualifications	Project Role	Relevant Experience
<p>Bruna Felipe</p> <p>BE (Hons) Environmental Engineering UNESP, Sao Paulo State University, Brazil</p>	<p>Project Support</p>	<p>Bruna is a Project Environmental Engineer of Fehily Timoney and Company. Brunna holds a BE of Environmental Engineering from UNESP, Sao Paulo State University, Brazil.</p> <p>Bruna has been involved in a range of contaminated land projects and Tier II Environmental Risk Assessments (ERA). Brunna 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.</p>
<p>Eibhlín Vaughan</p> <p>First Class Honors BA in Environmental Science, Trinity College Dublin ,2020</p>	<p>Project Support</p>	<p>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.</p> <p>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.</p>

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 legislation¹² is provided in Table 3-2. This checklist cross-references the sections in the report where information can be found.

¹² 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. LCCC 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 facilitates 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 Inventory¹³. 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).

¹³ Environmental Protection Agency. 2022. SEA Spatial Information Sources: Available at [Strategic Environmental Assessment | Environmental Protection Agency \(epa.ie\)](https://www.epa.ie/assessment/sea)



Legend
 Local Authority Boundaries

LIMERICK CITY
AND COUNTY
COUNCIL

Local Authority Boundary	
LIMERICK CITY AND COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.1
CLIENT:	LIMERICK CITY AND COUNTY COUNCIL
DATE: 15/08/2023	SCALE: 1:300,000 @ A3

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4.2 Population and Human Health

In the 2022 Census, the total population of Limerick was 209,536 persons, showing the trend of an increase in total population in the County by ca. 7.5% (14,637 persons)¹⁴ since the previous Census.

The transitional population projection for Limerick as identified by the Southern Regional Assembly's Regional Spatial and Economic Strategy (RSES) by 2031 is between 246,000 - 256,500 persons¹⁵.

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 county 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 county.
- Increased constraints on land use zoning objectives in the decarbonising zone.
- Potential effects on water quality.

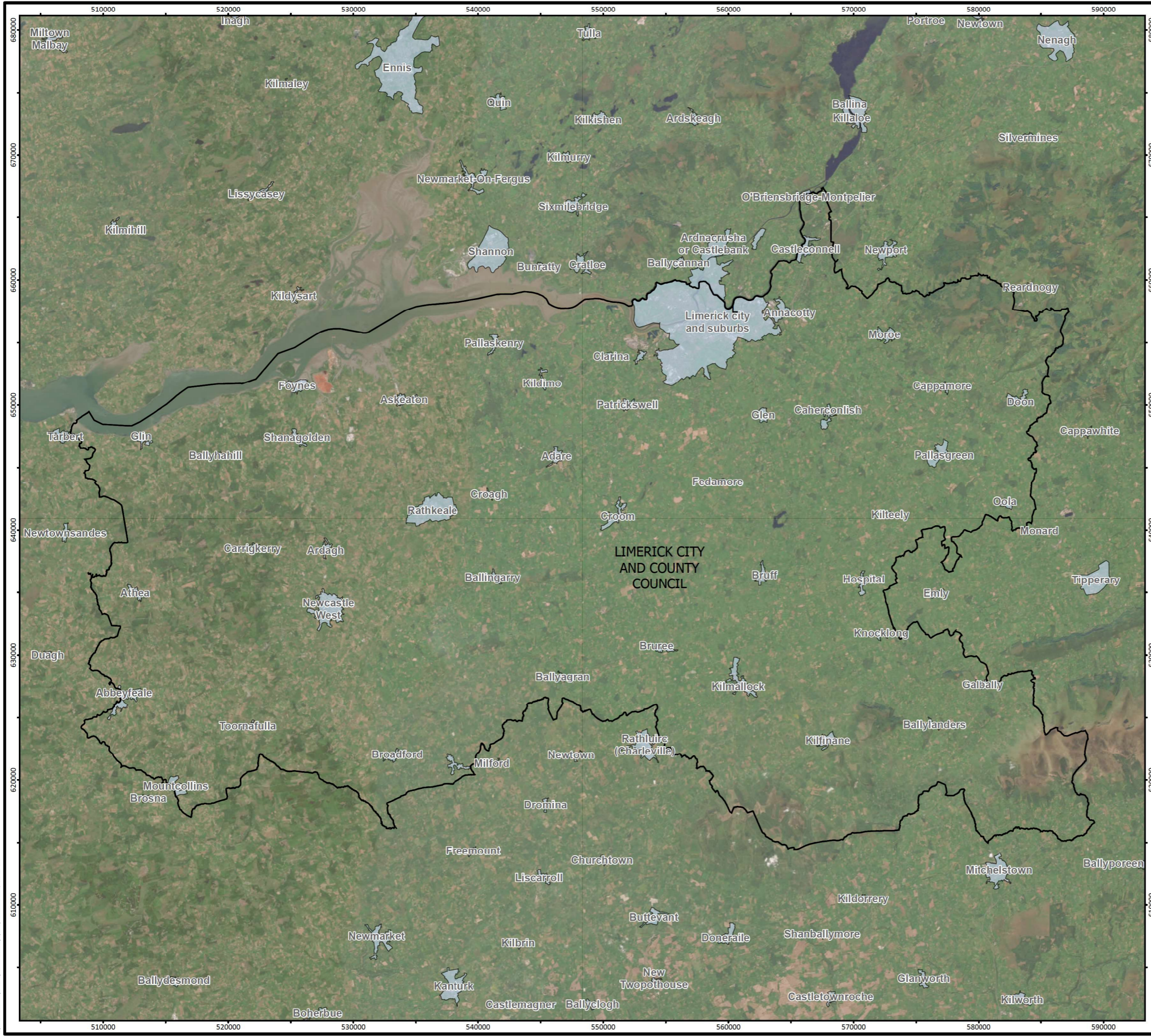
With regard to human health, impacts relevant to the SEA are those which arise as a result of interactions with environmental vectors (i.e. environmental components such as air, water or soil through which contaminants or pollutants, which have the potential to cause harm, can be transported so that 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 county.
- Population and development growth will potentially influence the decarbonising zone.
- Potential visual effect of green infrastructure development.

¹⁴ Central Statistics Office. 2022. [FY003B - Population and Actual and Percentage Change 2006 to 2022 \(cso.ie\)](https://data.cso.ie/table/FY003B)
<https://data.cso.ie/table/FY003B>

¹⁵ *Regional Spatial & Economic Strategy for the Southern Region*



- Legend**
- Local Authority Boundaries
 - Census Settlements

Major Settlement Pattern	
LIMERICK CITY AND COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.2
CLIENT:	LIMERICK CITY AND COUNTY COUNCIL
DATE: 30/08/2023	SCALE: 1:300,000 @ A3



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 Path: R:\Map Production\2023\23-076\Workspaces\SEA\SEA_ER_Fig_4_1_Major_Settlement_Patterns_within_Ireland.aprx



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 Limerick including:

Table 4-1: Designated Ecological Sites and Protected Species

Environmental Features	Description
UNESCO ¹⁶ (United Nations Educational, Scientific and Cultural Organisation) World Heritage and Biosphere sites	There are no UNESCO World Heritage Sites within the County. The closest sites are located within Co. Limerick (Rock of Cashel – Tentative List) and Co. Kerry (Kerry Biosphere Reserve).
Special Areas of Conservation ¹⁷ (SACs) ¹⁸	Designated under the Habitats Directive (Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora). There are 12 designated SACs within, partially within or adjacent to the County, including: Askeaton Fen Complex SAC (002279); Ballyhoura Mountains SAC (002036); Barrigone SAC (000432); Blackwater River (Cork/Waterford) SAC (002170); Carrigeenamronety Hill SAC (002037); Clare Glen SAC (000930); Curraghchase Woods SAC (000174); Galtee Mountains SAC (000646); Glen Bog SAC (001430); Glenstal Wood SAC (001432); Lower River Shannon SAC (002165); and Tory Hill SAC (000439). These and other sites beyond the County border that could be affected by the Draft LACAP has been considered by the assessments.
Special Protection Areas ¹⁹ (SPAs) ²⁰	Designated under the Birds Directive (EC Directive 200/147/EC on the conservation of wild birds). There are 3 designated SPAs within, partially within or adjacent to the County, including: River Shannon and River Fergus Estuaries SPA (004077); Slievefelim to Silvermines Mountains SPA (004165); and Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (004161). These and other sites beyond the County border that could be affected by the Draft LACAP has been considered by the assessments.
RAMSAR sites ²¹	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.

¹⁶ [UNESCO Sites in Ireland - HeritageMaps.ie - data.gov.ie](https://www.heritagemaps.ie/)

¹⁷ [Designated site data | National Parks & Wildlife Service \(npws.ie\)](https://www.npws.ie/)

¹⁸ [Habitats Directive \(1992/43/EEC\) - habitats and species listed in Annex I and II](https://www.npws.ie/)

¹⁹ [Designated site data | National Parks & Wildlife Service \(npws.ie\)](https://www.npws.ie/)

²⁰ [Birds Directive \(2009/147/EEC\)](https://www.npws.ie/)

²¹ [Ramsar Sites - Datasets - data.gov.ie](https://www.data.gov.ie/)



Environmental Features	Description
	Ireland presently has 45 sites designated as Wetlands of International Importance, with surface areas of 66,994 hectares. There are no designated Ramsar sites within, partially within or adjacent to the County boundary.
Natural Heritage Areas ²² (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 4 designated NHAs within, partially within or adjacent to the County, including: Lough Gay Bog NHA (002454); Grageen Fen and Bog NHA (002186); Moyreen Bog NHA (002361); and Carrigkerry Bogs NHA (002399).
Proposed Natural Heritage Areas (pNHAs) ²³	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 34 pNHAs within or partially within the County, of which the most notable sites include: Fergus Estuary And Inner Shannon, North Shore (002048); Galtee Mountains (000646); and Ballyhoura Mountains (002036).
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. Existing TPOs within the County have been identified within the County Development Plan.
Flora Protection Order Sites ²⁴	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 supercedes orders made in 1980, 1987, 1999 and 2015. There are 4 designated Flora Protection Order sites in the County; Glenosheen, Adare, Temple Hill, and Sugar Hill.
Wildfowl Sanctuaries ²⁵ (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 are 2 designated wildfowl sanctuaries in the County; which are Lough Gur (WFS-33) and part of Limerick City (WFS-34).
Salmonid Waters ²⁶	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 (<i>Salmo salar</i>), trout (<i>Salmo trutta</i>), char (<i>Salvelinus</i>) and whitefish (<i>Coregonus</i>). The River Feale and Aherlow river are listed under the Regulations. Part of the River Feale flows along the south-western border of the County in a northerly direction. The Aherlow river also flows within the south-eastern part of the County in a northerly direction.

²² [Natural Heritage Areas \(NHA\) | National Parks & Wildlife Service \(npws.ie\)](https://www.npws.ie/natural-heritage-areas)

²³ [EPA Maps](https://www.epa.ie/maps)

²⁴ [Flora Protection Order Map Viewer \(npws.ie\)](https://www.npws.ie/flora-protection-order-map-viewer)

²⁵ [Wildfowl Sanctuaries | National Parks & Wildlife Service \(npws.ie\)](https://www.npws.ie/wildfowl-sanctuaries)

²⁶ [Register of Protected Areas - Salmonid Water Regs Table - Datasets - data.gov.uk](https://data.gov.uk/dataset/register-of-protected-areas-salmonid-water-regs-table)



Environmental Features	Description
OSPAR Marine Protected Areas ²⁷ (MPA)	Under the OSPAR Convention to Protect the Marine Environment of the North East Atlantic, Ireland committed to establishing marine protected areas to protect biodiversity (i.e., OSPAR MPAs). There are currently 19 OSPAR sites proposed in the State. The nearest MPA to the County among the list of sites is Tralee Bay and Magharees Peninsula, West to Cloghane MPA in County Kerry.
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 types are agricultural areas and pastures. Clusters of forestland and semi-natural areas accompanied by wetlands and agricultural areas with significant natural vegetation are located around the western, south-western, north-eastern and south-eastern borders of the County. Urban fabric with industrial and commercial units is mainly found in Limerick City, with small towns scattered evenly across the County.
National Parks	National Parks are specially designated protected areas of unspoilt beauty and there are six located in Ireland. The primary purpose of the National Parks is the conservation of biodiversity and landscape; however, they also provide recreational space for locals and visitors. There are no National Parks within the County. The nearest National Parks are Killarney National Park in County Kerry and Burren National Park in County Clare.
Nature Reserves ²⁹	A Nature Reserve is an area of importance to wildlife, which is protected under Ministerial order. There are currently 78 Statutory Nature Reserves. Most are owned by the State, but some are owned by organisations or private landowners. There are no Nature Reserves within the County. The nearest Nature Reserve is Kilcolman Bog in County Cork.

Additionally, the SEA will consider non designated sites for impacts regarding aspects such as:

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

	Description
Ecological connectivity and networks (including steppingstones and corridors)	Coastal systems, riparian habitats, hedgerows and other blue and green infrastructure networks. Ecological connectivity and networks is 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.

²⁷ [OSPAR Convention to Protect the Marine Environment of the North East Atlantic, Ireland committed to establishing marine protected areas to protect biodiversity](#)

²⁸ [EPA Maps](#)

²⁹ [Nature Reserves in Ireland | National Parks & Wildlife Service \(npws.ie\)](#)



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 and has followed 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 bats³⁰, breeding birds³¹, badgers³² etc. as well as all related species listed within the Flora (Protection) Order, 2022 ([S.I. No. 235 of 2022](#))³³.

4.3.1 Key Issues Related to the Draft LACAP

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

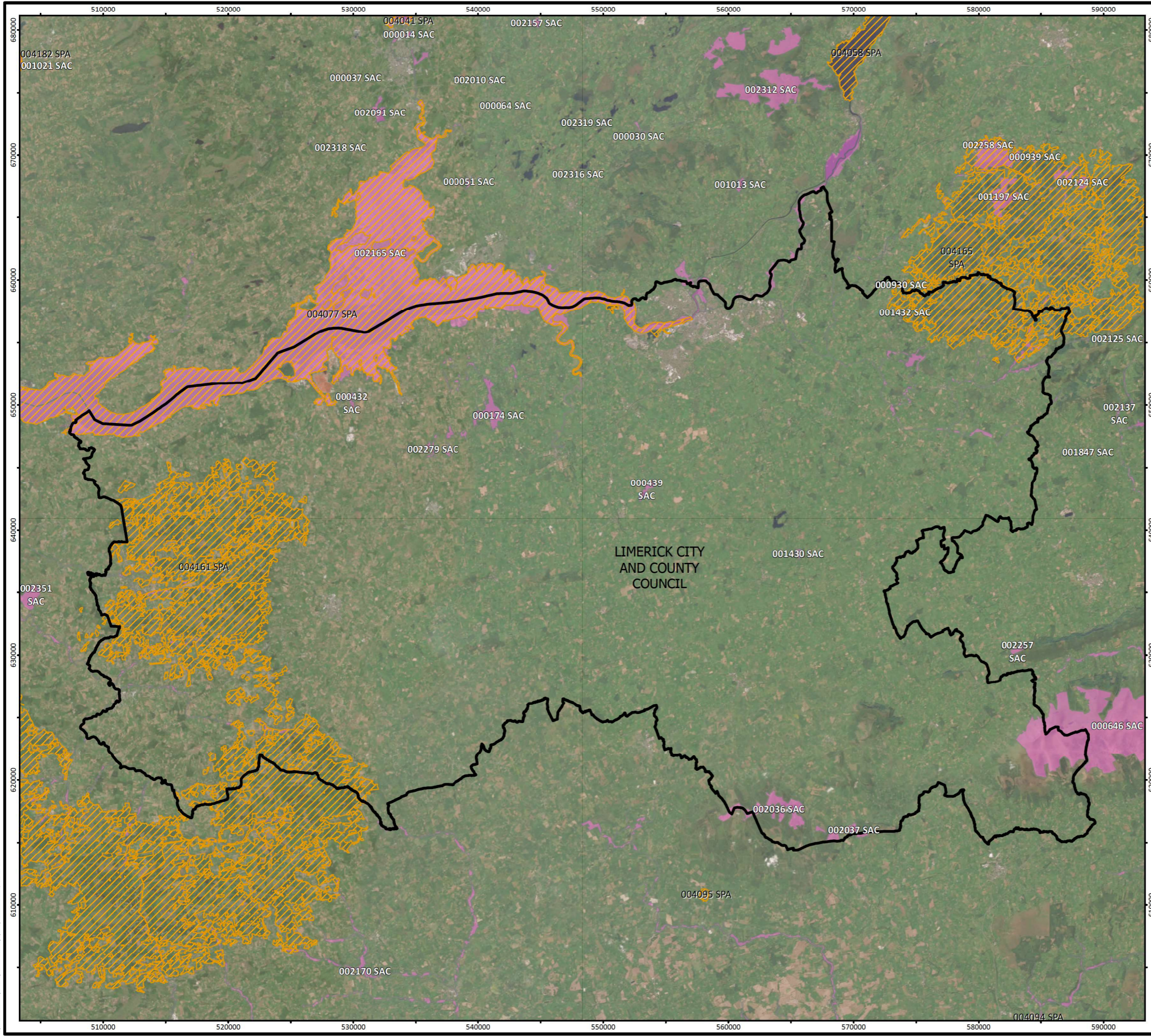
- Route selection and classification criteria are a key consideration in the development of blueways and greenways within the Draft LACAP due to the largely linear nature of these developments.
- The potential for effects on non-designated biodiversity features e.g. important habitats and species outside 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. SAC, SPAs), 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.

³⁰ The Habitats Directive ([1992/43/EEC](#)) and Birds Directive ([2009/147/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 2009/147/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.

³¹ Irish Wildlife Acts, 1976 (as amended).

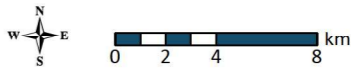
³² Irish Wildlife Act 1976 (as amended) and Bern Convention Appendix III.

³³ 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).



Legend

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

Special Areas of Conservation and Special Protected Areas	
LIMERICK CITY AND COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.3
CLIENT:	LIMERICK CITY AND COUNTY COUNCIL
DATE:	15/08/2023
SCALE:	1:300,000 @ A3
	

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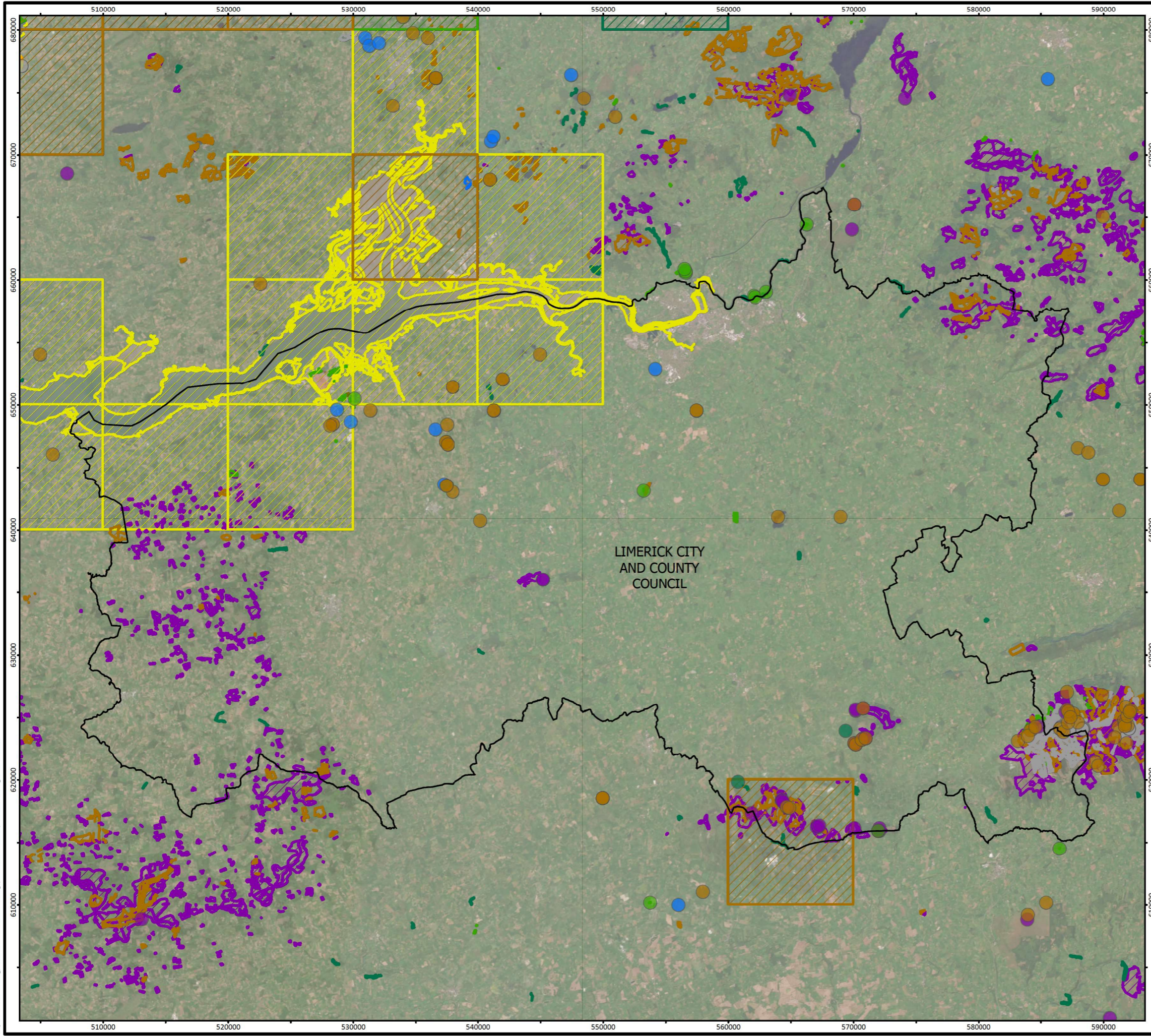
- Local Authority Boundaries
- Natural Heritage Areas
- Proposed Natural Heritage Areas

Natural Heritage Areas and proposed Natural Heritage Areas in Ireland	
LIMERICK CITY AND COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.4
CLIENT:	LIMERICK CITY AND COUNTY COUNCIL
DATE:	15/08/2023
SCALE:	1:300,000 @ A3

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 Path: R:\Map Production\2023\23-076\Workspaces\SEA\SEA_ER_Fig_4.4 Natural Heritage Areas and proposed Natural Heritage Areas in Ireland.aprx

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 NPWS/Article 17 Habitats Detailed Distribution: National Parks and Wildlife Service of Ireland (NPWS), An Seibbhís Páircoimne Náisiúnta agus Fíadhlúis
 Department of Housing, Local Government and Heritage, An Roinn Tithíochta, Bailte Áitiúla agus Oidhreacht



Legend

Local Authority Boundaries

Article17HabitatsDetailedDistributionPointGDPR

- Bogs, Mires and Fens
- Forests
- Freshwater
- Grasslands
- Heath and Scrub
- Rocky

Article17HabitatDetailedDistributionPolylineGDPR

- Coastal

Article17HabitatsDetailedDistributionPolygonGDPR

- ▨ Bogs, Mires and Fens
- ▨ Coastal
- ▨ Forests
- ▨ Freshwater
- ▨ Grasslands
- ▨ Heath and Scrub
- ▨ Rocky
- ▨ Sclerophyllous scrubs

Potential Habitat Sensitivities - Areas likely to contain Annex I habitats

LIMERICK CITY AND COUNTY COUNCIL
Local Authority Climate Action Plans

FIGURE NO: 4.5

CLIENT: LIMERICK CITY AND COUNTY COUNCIL

DATE: 27/07/2023 **SCALE:** 1:300,000 @ A3

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4.4 Landscape, Seascape and Visual Amenity

Limerick City has a unique and distinctive landscape that forms a key aspect of the City’s character. As with the county, the River Shannon provides a backdrop to the much of the city area and forms an essential part of the character and attraction of the city. The presence of the city docks is also a feature to be considered. The County is rich in historical landscapes defined as archaeological and historical elements, such as Lough Gur and Kilmallock.

The current Landscape Character Assessment³⁴ for Limerick identifies 10 Rural Landscape Character Areas and 5 Urban Character Areas. In addition to this, Specific Views and Prospects for protection have been identified. High Amenity Areas have also been identified in the County. These comprise of:

Table 4-3: Landscape Character Areas

Environmental Features	Description
Landscape Character Areas (LCAs)	<ul style="list-style-type: none"> • Rural: • LCA 1 – Agricultural Lowlands • LCA 2 – Ballyhoura / Slieve Reagh • LCA 3 - Galtee Uplands • LCA 4 - Knockfierna • LCA 5 – Lough Gur • LCA 6 – Shannon Coastal Zone • LCA 7 – Southern Uplands • LCA 8 – Slieve Felim Uplands • LCA 9 – Tory Hill • LCA 10 – Western Uplands (Western Hills/ Barnagh Gap/Sugar Hill) • Urban: • UCA 1 – City Centre • UCA 2 – Surrounding Suburban Area • UCA 3 – Castletroy/ Plassey/ Annacotty • UCA 4 – Southern Environs – Dooradoyle/ Raheen/ Mungret • UCA 5 - Thomondgate/ Moyross/ Caherdavin/ Ennis Road

The above and any other or emerging landscape designations have been considered by the assessment.

The SEA assessment of landscape has utilised information from the following sources:

- Limerick environmental sensitivity mapping
- The National Landscape Strategy for Ireland
- Tree Preservation Orders
- Forest cover/Indicative Forest Strategies³⁵

³⁴ Limerick Development Plan 2022-2028, Chapter 6: Environment, Heritage, Landscape and Green Infrastructure.

³⁵ Department of Agriculture, Food and the Marine.



- Limerick Development Plan 2022-2028
- County Landscape Character Assessment

4.4.1 Key Issues Relating to the Draft LACAP

The key issues in relation to Landscape 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 protected³⁶. The SEA Environmental Report has included information on the archaeological heritage of Limerick. One of the primary sources of information for known archaeological features is the Record of Monuments and Places (RMP)³⁷. The RMP is an inventory of sites and areas of archaeological significance.

There are more than 7,000 Recorded Monuments within the County. These range from isolated pits to the inspiring ruins of the friary at Askeaton and the majestic King John's Castle in the City. They include the graves, homes, farmsteads and towns. There are close to 130 recorded monuments on the RMP in State Care in the County.

The SEA Environmental Report has also included information on the architectural heritage of Limerick including that relating to designations such as the Record of Protected Structures (RPS). Local authorities compile and maintain the RPSs³⁸; these RPSs are listed in the County Development Plan and are available in digital map format in Volume 3A. There are over 2,000 entries to the Record of Protected Structures within the County³⁹, which include remains of deserted medieval settlements in towns such as Kilmallock and Newcastle West, Adare and Askeaton, as well as Limerick City itself. These range from town walls, religious foundations and castles and more modest houses and structures.

³⁶ National Monuments Acts 1930 (as amended), the National Cultural Institutions Act 1997 (as amended) and the Planning and Development Act 2000 (as amended).

³⁷ Data available at [National Monuments Service - Archaeological Survey of Ireland - Datasets - data.gov.ie](https://data.gov.ie/datasets/national-monuments-service-archaeological-survey-of-ireland)

³⁸ Under Section 51 of the Planning & Development Act 2000 (as amended).

³⁹ Limerick 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)⁴⁰. 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 heritage⁴¹.

The Department of Housing, Local Government and Heritage has developed the Heritage Ireland 2030⁴² 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 currently 25 designated ACAs within the County.

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 Affairs⁴³ (including underwater archaeology such as wreck data⁴⁴)
- National Monuments Service (including the Underwater Unit)
- Built Heritage and Architectural Policy Section (the NIAH)⁴⁵
- County Development Plan
- 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.

⁴⁰ 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](https://data.gov.ie/dataset/national-inventory-of-architectural-heritage-niah-national-dataset)

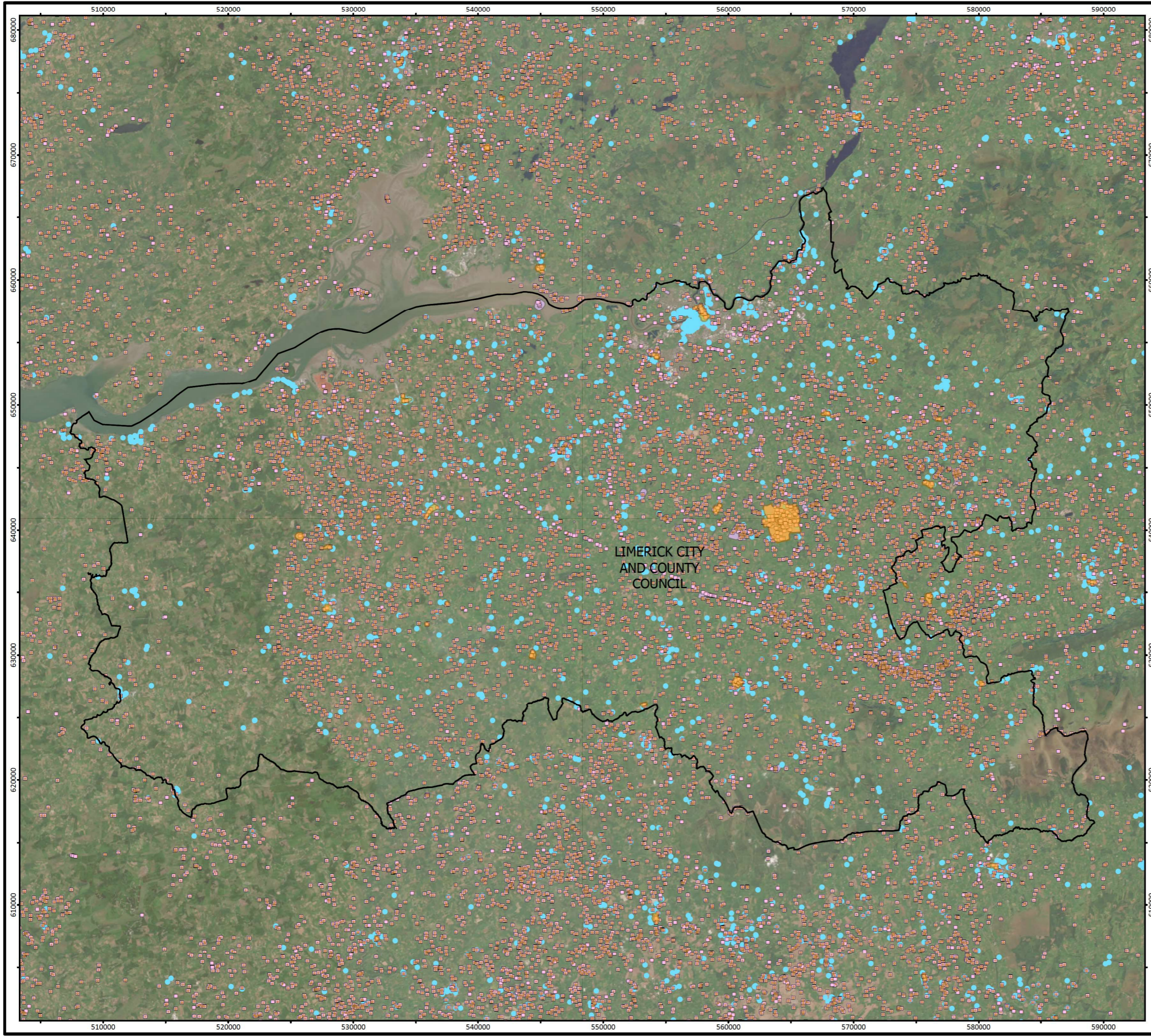
⁴¹ Department of Housing, Local Government and Heritage. 2015. Advice to the Public on Ireland's Underwater Archaeological Heritage.






⁴² Available at [Heritage Ireland 2030 | gov.ie/housing \(www.gov.ie\)](https://www.gov.ie/en/publications-and-statements/2022-02-heritage-ireland-2030/)

⁴³ Department of Arts, Heritage and the Gaeltacht.

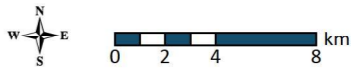
⁴⁴ Available at [Wreck Viewer | National Monuments Service \(archaeology.ie\)](https://www.archaeology.ie/wreck-viewer)

⁴⁵ Data available at [National Inventory of Architectural Heritage \(NIAH\) National Dataset - Datasets - data.gov.ie](https://data.gov.ie/dataset/national-inventory-of-architectural-heritage-niah-national-dataset)



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

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Archaeological Heritage and National Monuments Map	
LIMERICK CITY AND COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.6
CLIENT: LIMERICK CITY AND COUNTY COUNCIL	
DATE: 15/08/2023	SCALE: 1:300,000 @ A3
	





4.6 Soils

The types of soils found covering the County⁴⁶ include the following:

Table 4-4: Soil Types Covering the County

Soil Type	Description
Dominant Soils	
Grey-Brown Podzolics	Grey-Brown podzolic soils are characterized by a comparatively thin organic covering and an organic-mineral layer above a grayish brown leached layer. They are well-drained, deep fertile soil. These soils are found covering most areas within the County.
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 soils are found scattered throughout most of the Plan area, and especially concentrated around the western parts.
Other Soils	
Brown Earths/ Acid Brown Earths	Brown earths are well drained mineral soils, associated with high levels of natural fertility. These are found mainly in the western parts of the Plan area and as subsoils scattered throughout the County.
Alluvial soils	These are associated with alluvial (clay, silt or sand) river deposits. These are found in the flood plains of rivers and lakes.
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 the north in Limerick City and the most built-up parts scattered across the County.
Rendzinas	Rendzinas are well-drained, shallow mineral soils with solid or fragmented calcareous rock at depth. These are very dark soils with high lime content derived from limestone bedrock or limestone sands and gravels. These are found mainly in the northern coastal areas near Shannon Estuary.

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. Ombrotrophic (rain-fed) peat soils have been identified in the western, south-eastern and north-eastern parts of the Plan area in a number of upland locations.

The SEA has examined 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.

⁴⁶ Teagasc.ie. General Soil Map.



The audit of County Geological Sites in County Limerick was completed in 2021 and identified 30 County Geological Sites⁴⁷. Previous Landslide Events and Landslide Susceptibility Mapping sources have been considered by the SEA.

The SEA of Soils will utilise information from the following sources:

- Geological Survey Ireland (GSI)
- Teagasc
- Infomar⁴⁸
- 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

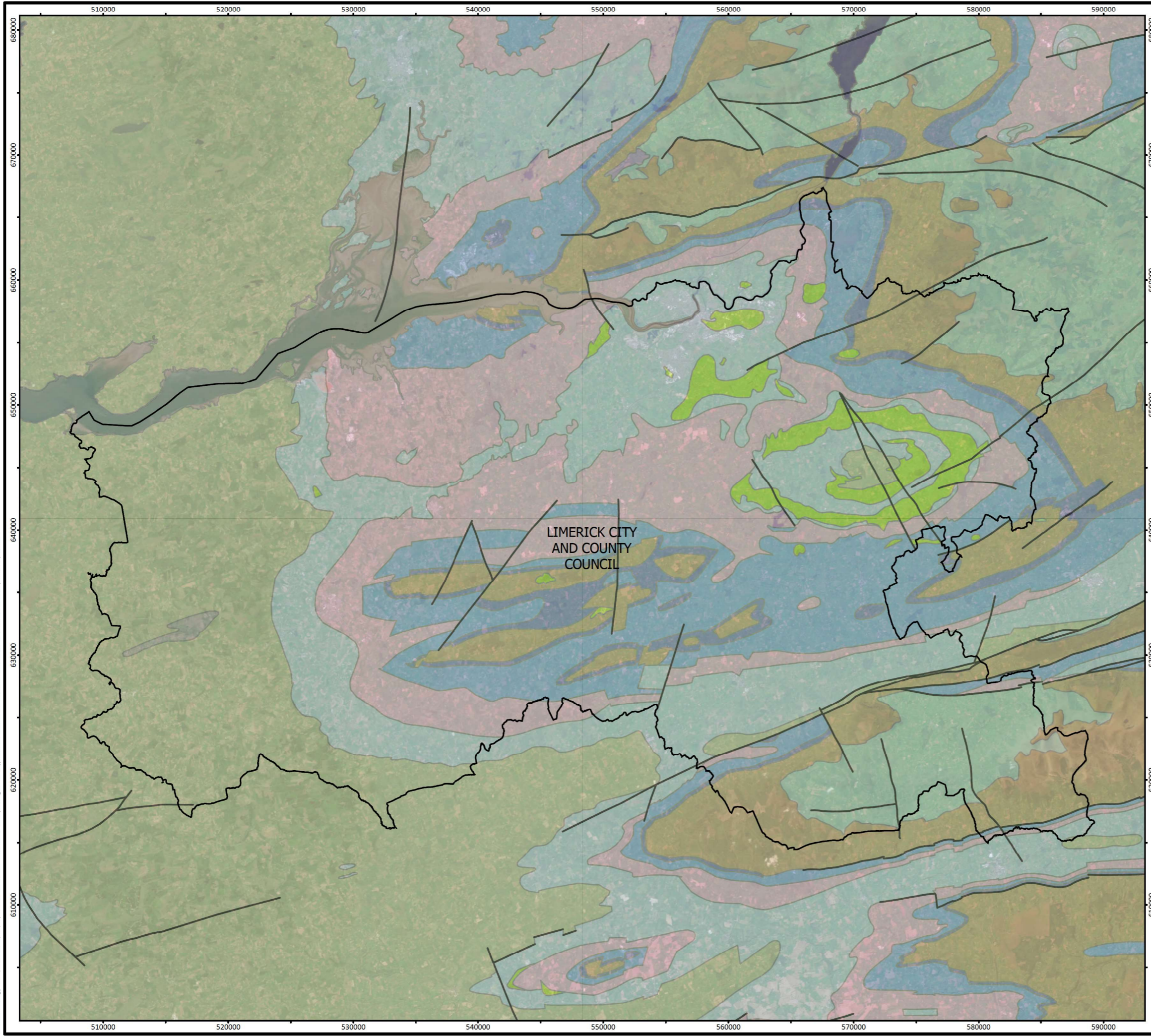
The key issues in relation to Soils are as follows:

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

⁴⁷ Geological Survey of Ireland (2021) *The Geological Heritage of County Limerick*.

⁴⁸ [Seabed and Sediment Data | Infomar](#)

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 Bedrock Geology 1:500,000 Ireland (ROI/NI) (TM; Contains Irish Public Sector Data (Geological Survey)) licensed under a Creative Commons Attribution 4.0 International [CC BY 4.0] Licence

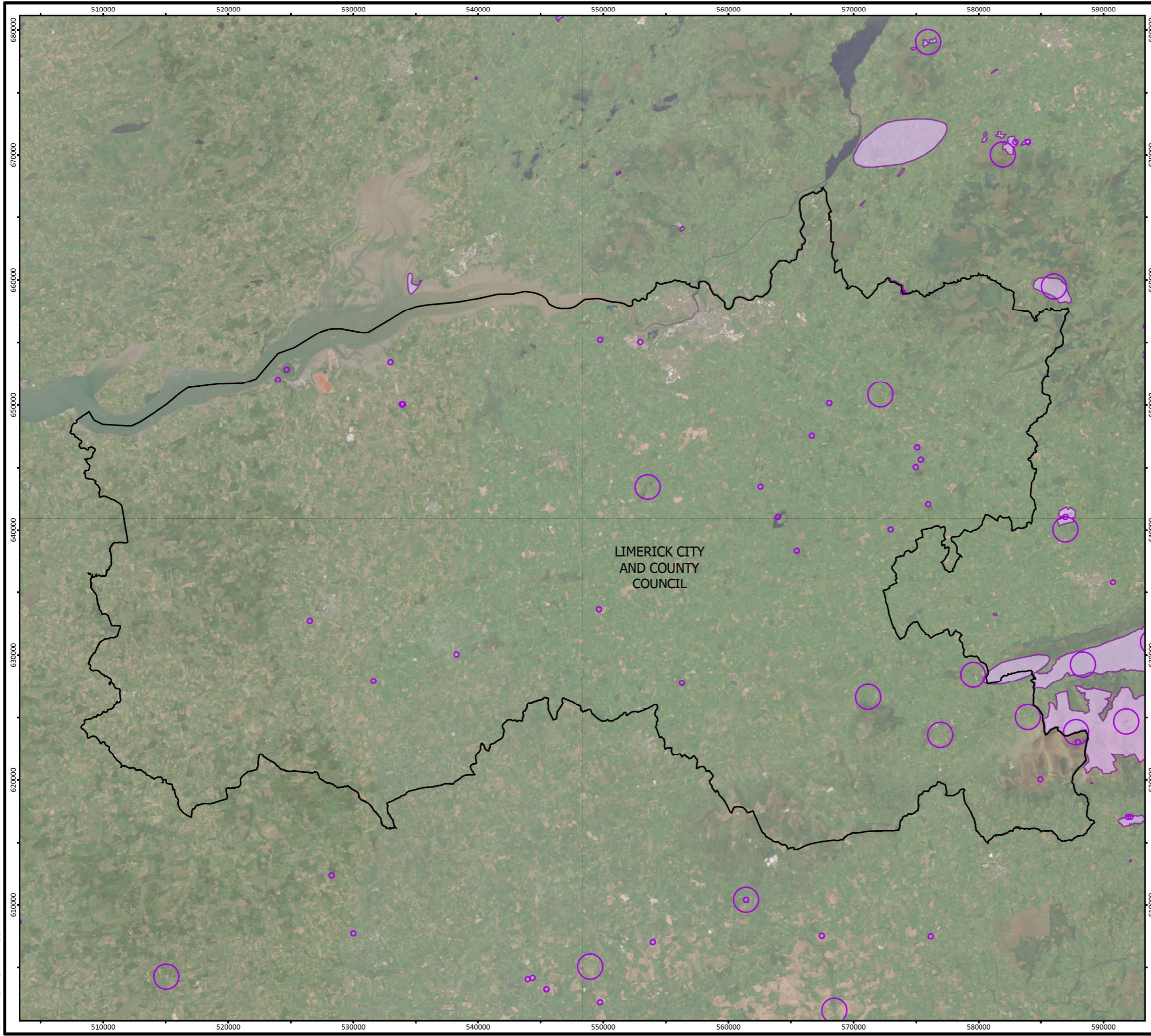


- Legend**
- Local Authority Boundaries
 - Bedrock Geology 500k (ROI/NI)**
 - 49, Deep marine turbidite sequence; Mudstone, greywacke & conglomerate
 - 50, Basalt, andesite, basaltic & andesitic tuff
 - 54, Continental redbed facies; Sandstone, conglomerate & siltstone (in places extends into the Carboniferous)
 - 56, Basalt, trachyte, syenite & tuff
 - 58, Shallow marine ("Lower Limestone Shale"); Shale, 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
 - 71, Fluvio-deltaic & basinal marine (Turbiditic); Shale, sandstone, siltstone & coal
 - 72, Fluvio-deltaic & shallow marine; Shale, sandstone & siltstone with coal

Bedrock Geology	
LIMERICK CITY AND COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.7
CLIENT:	LIMERICK CITY AND COUNTY COUNCIL
DATE:	15/08/2023
SCALE:	1:300,000 @ A3



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Path: R:\Map Production\2023\P23-076\Workspaces\SEA\SEA_ER_Fig_4-8 Geology Heritage Sites of Ireland.aprx



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

Geological Heritage Sites	
LIMERICK CITY AND COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.8
CLIENT: LIMERICK CITY AND COUNTY COUNCIL	
DATE: 15/08/2023	SCALE: 1:300,000 @ A3





4.7 Land Use

Information on land use in Limerick can be obtained from the CORINE Land Cover (CLC) inventory and Ireland's Marine Atlas⁴⁹. 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 NPWS⁵⁰.

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

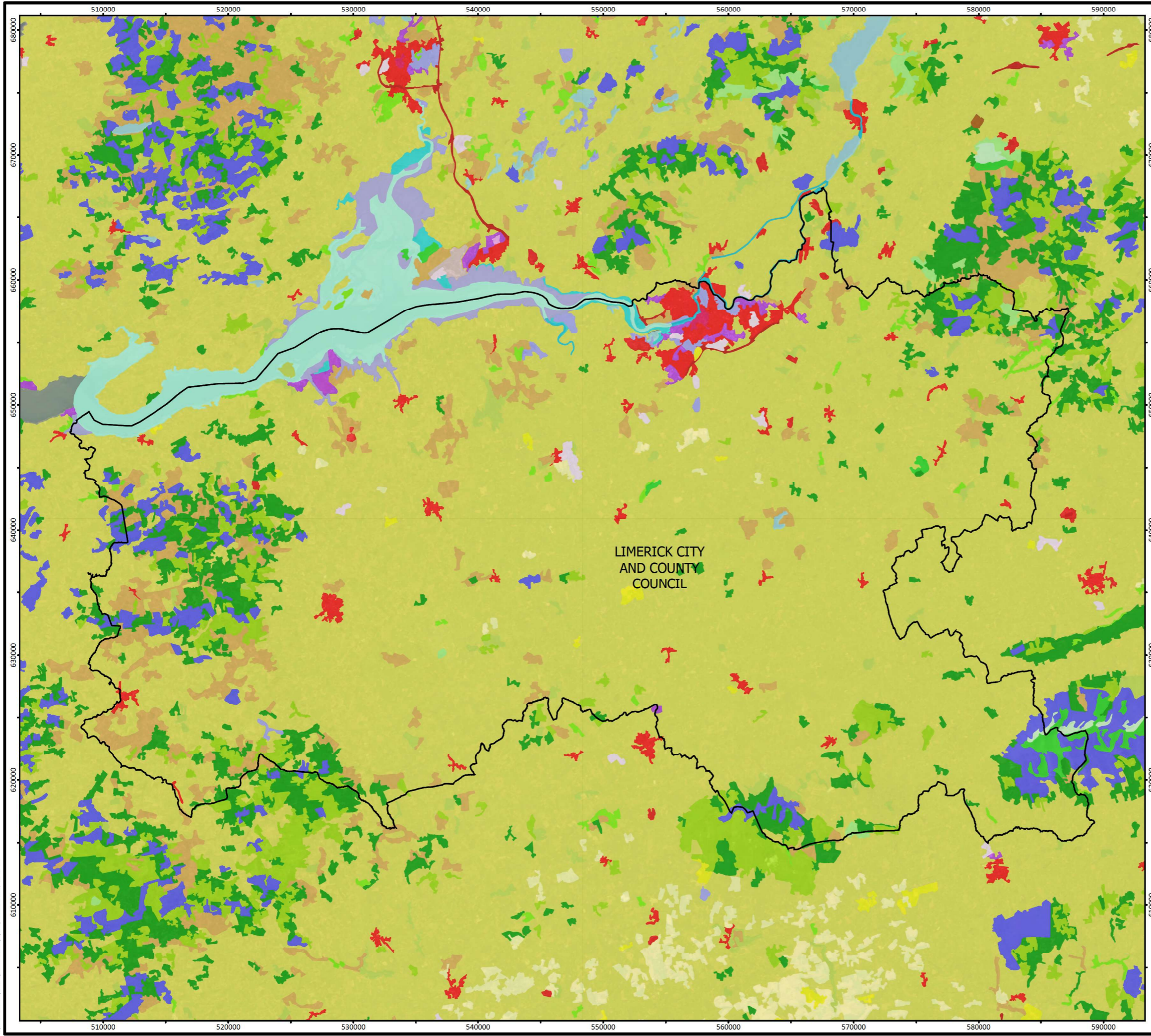
4.7.1 Key Issues Relating to the Draft LACAP

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

- Potential constraints on sea fisheries, both during construction and operation of green infrastructure projects associated with 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.

⁴⁹ Available at [Ireland's Marine Atlas](#)

⁵⁰ 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.



- 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
 - 124 Airports
 - 131 Mineral extraction sites
 - 132 Dump
 - 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
 - 321 Natural grassland
 - 322 Moors and heaths
 - 324 Transitional woodland scrub
 - 333 Sparsely vegetated areas
 - 411 Inland marshes
 - 412 Peat bogs
 - 421 Salt Marshes
 - 423 Intertidal flats
 - 511 Stream courses

Land Use (CORINE)	
LIMERICK CITY AND COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.9
CLIENT: LIMERICK CITY AND COUNTY COUNCIL	
DATE: 15/08/2023	SCALE: 1:300,000 @ A3



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 Path: R:\Map Production\2023\P23-076\Workspaces\SEA\SEA_ER_Fig_4.9 Land Use of Ireland.aprx



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 (NO₂) 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 (NO₂) levels are within the current EU legal limits, however these pollutants exceed the World Health Organization (WHO) (2021) guidelines⁵¹.

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). Limerick City is part of 'Zone C', while the rural areas within the County make up parts of 'Zone D'. The current air quality in Limerick is generally identified by the EPA as being of Good⁵² status.

The EEA⁵³ 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 noise⁵⁴. 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 have been 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

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.

⁵¹ World Health Organization. 2021. WHO global air quality guidelines: particulate matter (PM_{2.5} 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

⁵² [EPA AirQuality.ie](https://www.epa.gov/air-quality) - 12/07/2023

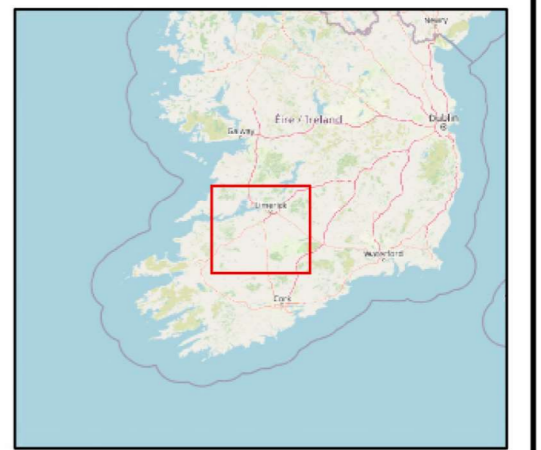
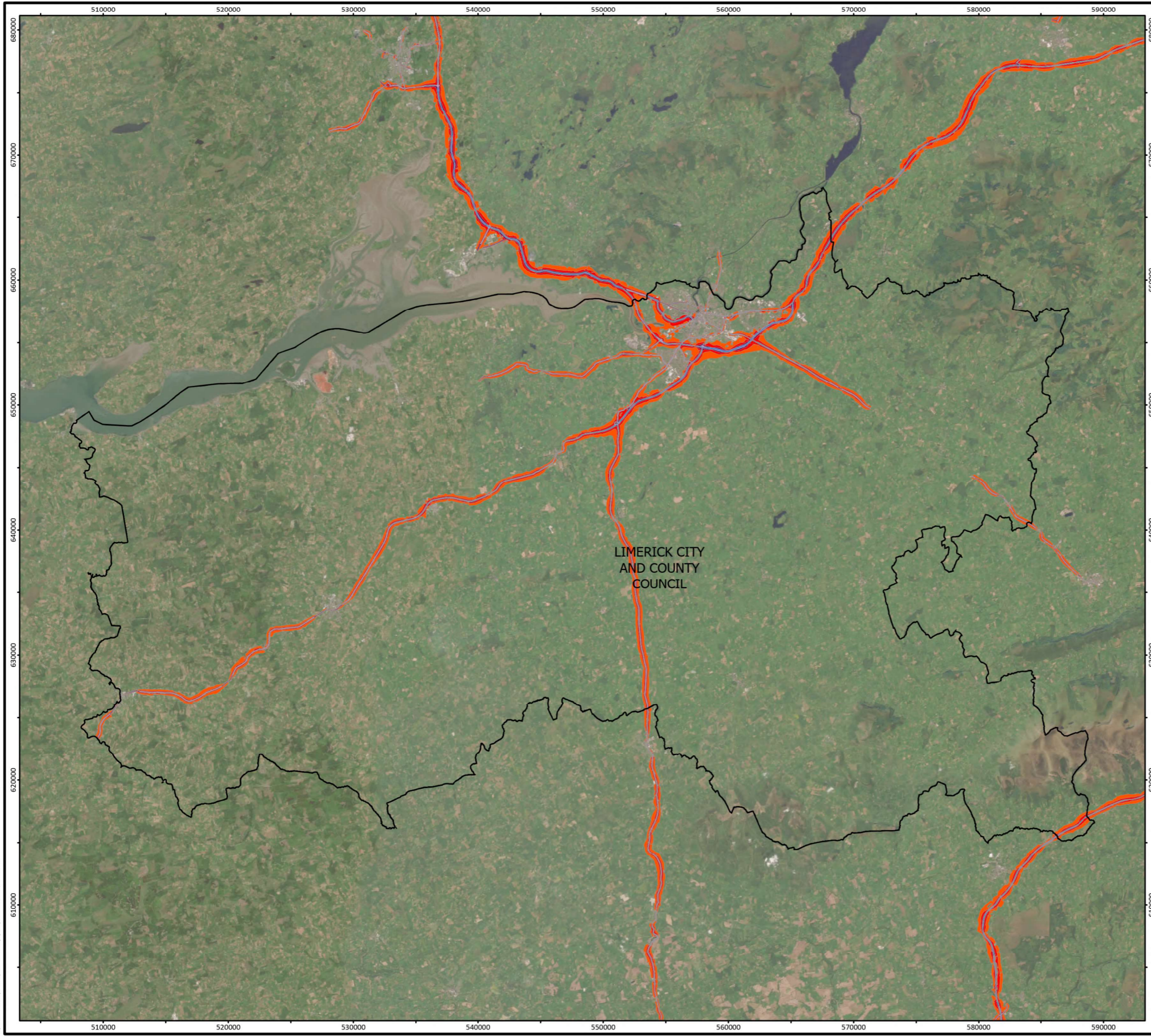
⁵³ EEA. 2022. Noise Data Briefing. Available at: [Noise — European Environment Agency \(europa.eu\)](https://www.eea.europa.eu/en/press-releases/2022/07/2022-07-20-noise-data-briefing).

⁵⁴ This was transposed into Irish national legislation via the Environmental Noise Regulations (S. I. No. 140 of 2006).



- Renewable energy developments may have impacts on noise pollution, particularly towards sensitive receptors which are in close proximity.

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Legend

- Local Authority Boundaries
- 55-59dB
- 60-64dB
- 65-69dB
- 70-74dB
- Greater than 75dB

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

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

LIMERICK CITY AND COUNTY COUNCIL
Local Authority Climate Action Plans

FIGURE NO: 4.10

CLIENT: LIMERICK CITY AND COUNTY COUNCIL

DATE: 29/08/2023 SCALE: 1:300,000 @ A3

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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 EPA⁵⁵. The County is located mainly within the Shannon Estuary South catchment, with the Tralee Bay-Feale, Blackwater (Munster), Suir, and Lower Shannon catchments underlying some parts of the county. The Lower and Upper Shannon Estuary is the main transitional waterbody that lies along the northern border of the County. The WFD status of transitional water bodies (2016-2021) for the Foynes Harbour is currently identified as being of High status; the Lower Shannon Estuary is of Good status; the Deel and Maigue Estuaries are of Moderate status; the Upper Shannon Estuary and Limerick Dock are of Poor 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 Limerick is generally identified as being of Good status. Two groundwater bodies underlying industrial facilities in Slieve Phelim (P0331-01) and Askeaton (P0035-04) are of Poor status, however.

The WFD status of rivers and streams (2016-2021) draining Clare ranges from High to Poor as below:

High: Behanagh_010 and Oolagh_010.

Good: Sections of rivers and streams mostly around the border, including Allaghaun_020, Feale_040, Galey_010, Knockfinnisk_010, Owvane (Limerick)_010, Deel (Newcastlewest)_100, Morningstar_060, Maigue_050, Sheep, Aherlow, Funshion and etc.

Moderate: Bilboa_010, Mulkear(Limerick), Ballynaclogh_010, Shannon (Lower)_060, sections of Deel (Newcastlewest), Finglasha stream_010, sections of the Maigue river, Flemingstown stream_010, Awbeg (Buttevant)(East)_010, Loobagh_020 and etc.

Poor: Sections of rivers and streams mainly in the central to northern parts of the County, including Camoge, Ballynamona, Clonshire, Anacronane, East Carrig_010, Foynes_010, Owvane (Limerick)_030, Arra_010, Bunoke_010 and etc.

In addition to Bleach Lough and Gur Lough which have Good and Moderate WFD 2016-2021 statuses respectively, there are also a number of unassigned lakes across the County.

⁵⁵ [EPA Maps](#). Water.



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

Certain areas across the County are at risk of flooding from various sources including groundwater, pluvial, fluvial, and estuarial. There are various historic and predictive indicators of flood risk in the County, including some rivers and their tributaries, such as the Shannon, the Deel, the Morningstar, the Mulkear, and the Shannon and Mague Estuaries.

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. 28 settlements in Limerick were identified by the OPW in 2012 as requiring detailed assessment of flood risk (Areas for Further Assessment)⁵⁶, of which include Abbeyfeale, Newcastlewest and Rathkeale.

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 County 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 county.

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 County 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 will utilise 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) Mapping⁵⁷ (OPW).

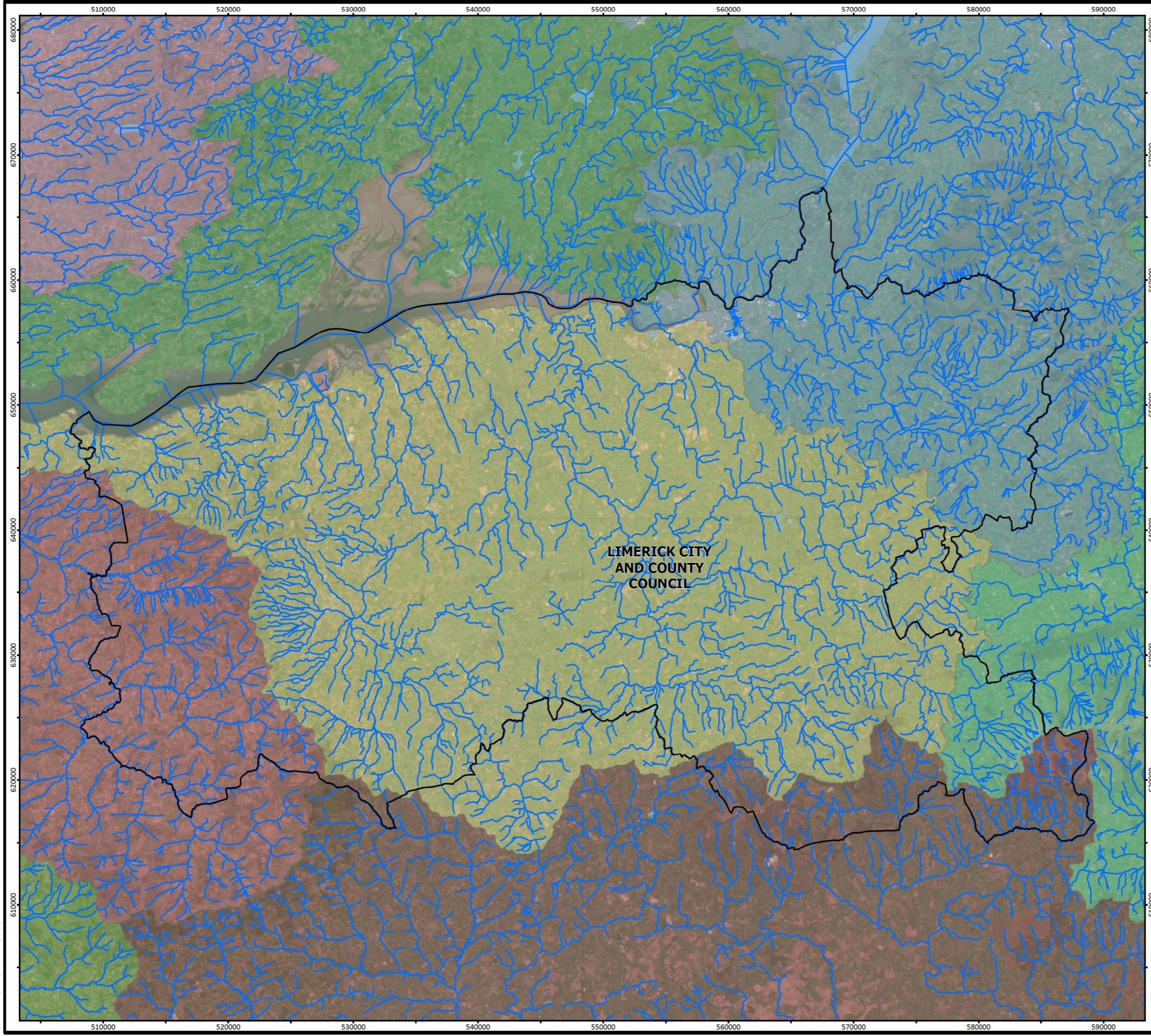
4.9.1 Key Issues Relating to the Draft LACAP

- 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 Available online at [Microsoft Word - PFRA Main Report - Rev D.doc](#).

⁵⁷ OPW (2022) Flood risk maps and data platform - Available at <https://www.floodinfo.ie/map/floodmaps/>

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Legend

- Local Authority Boundaries
- Rivers

WFD Catchments

Catchment Name

- Blackwater (Munster)
- Laune-Maine-Dingle Bay
- Lower Shannon
- Mal Bay
- Shannon Estuary North
- Shannon Estuary South
- Suir
- Tralee Bay-Feale

Hydrology

LIMERICK CITY AND COUNTY COUNCIL
Local Authority Climate Action Plans

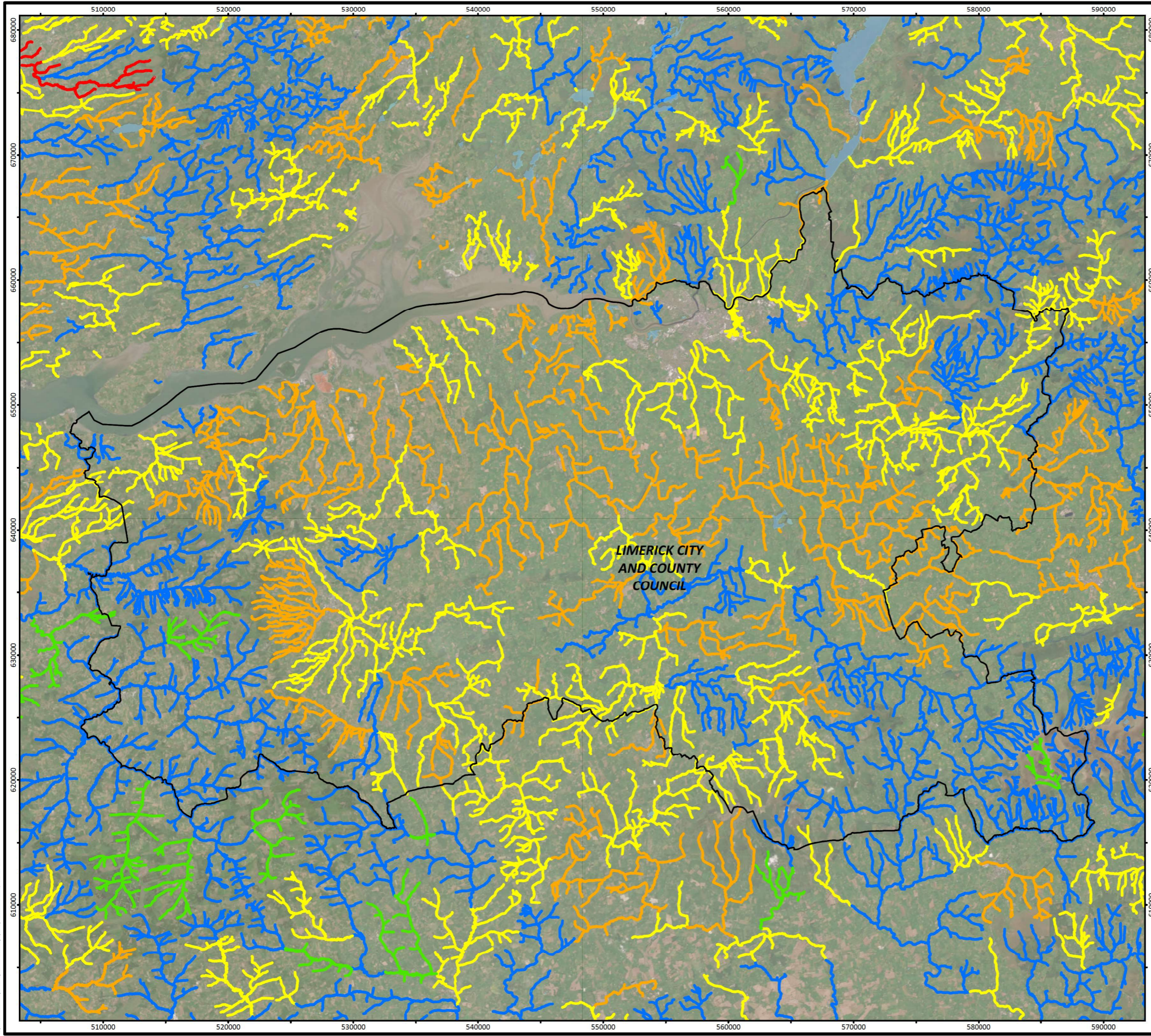
FIGURE NO: 4.11

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DATE: 15/08/2023 **SCALE:** 1:300,000 @ A3

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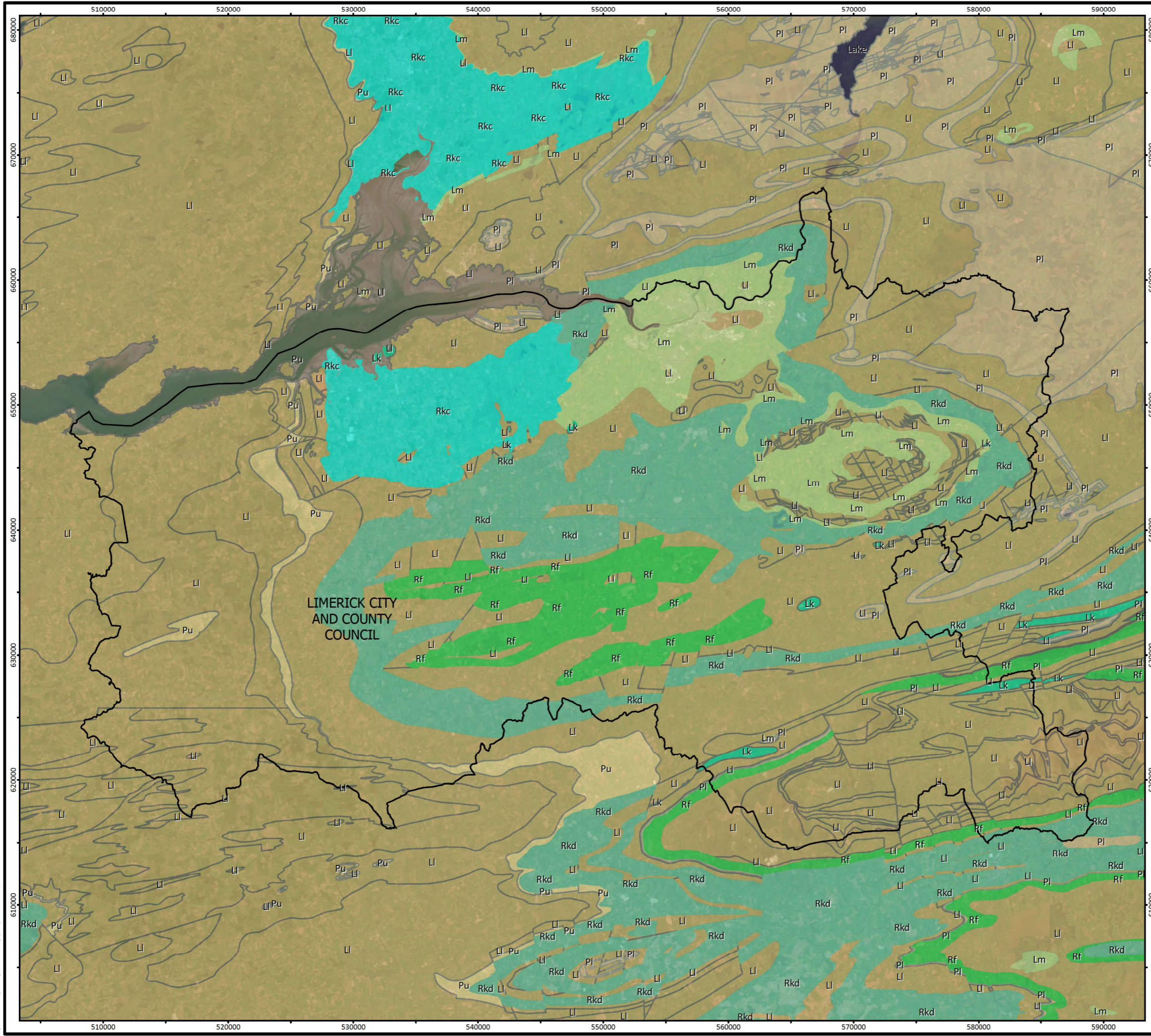
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- Legend
- Local Authority Boundaries
 - WFD Lake Segments
 - EPA Rivers - WFD Status 2016 - 2021
 - Bad
 - Poor
 - Moderate
 - Good
 - High
 - Unassigned

WFD Surface Water Status	
LIMERICK CITY AND COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.12
CLIENT:	LIMERICK CITY AND COUNTY COUNCIL
DATE:	15/08/2023
SCALE:	1:300,000 @ A3





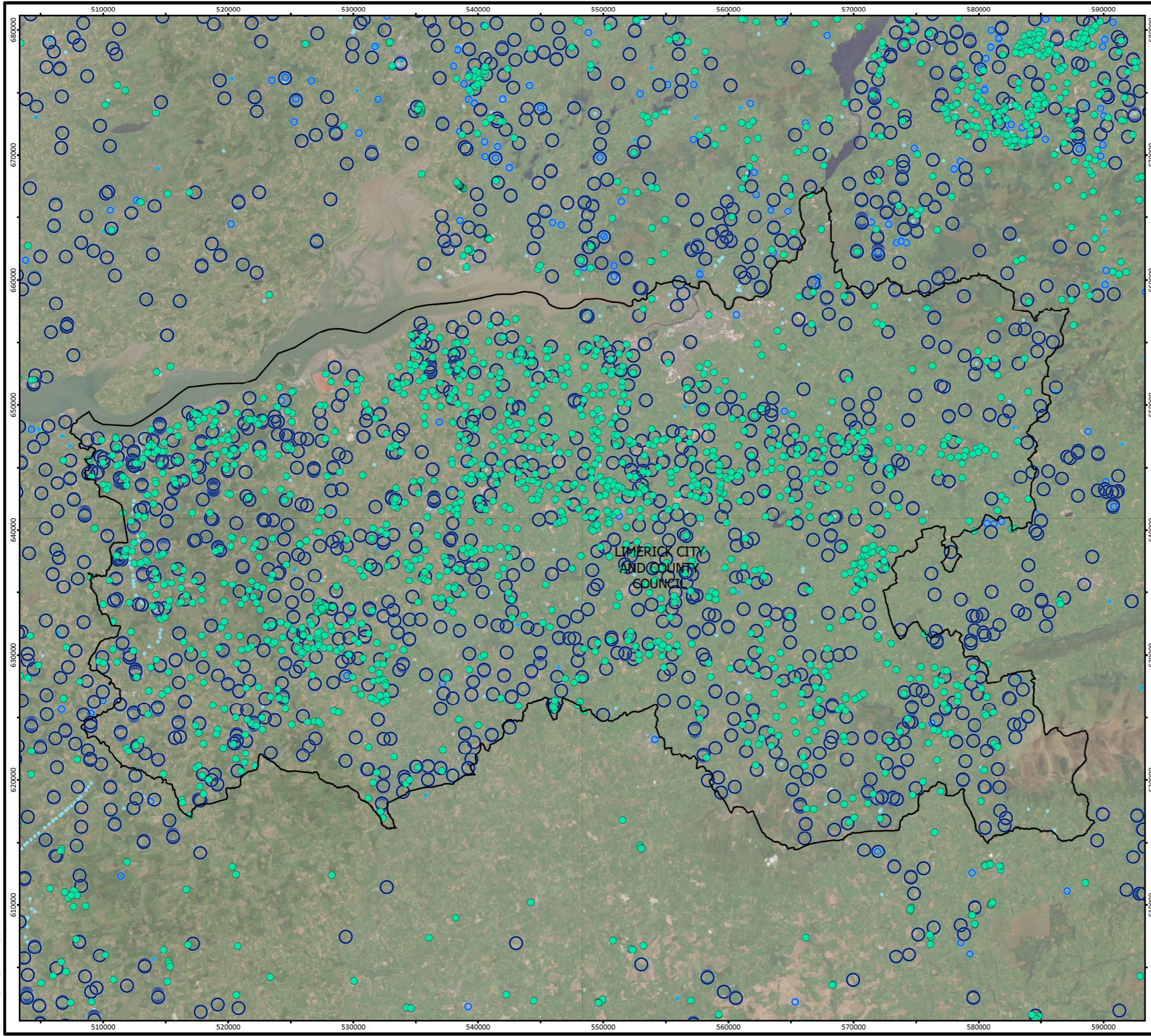
- Legend**
- Local Authority Boundaries
 - Bedrock Aquifers**
 - Lk: Locally Important Aquifer - Karstified
 - Ll: Locally Important Aquifer - Bedrock Mod Productive Locally
 - Lm: Locally Important Aquifer - Bedrock Generally Mod Productive
 - Pl: Poor Aquifer Bedrock Generally Unproductive Except Locally
 - Pu: Poor Aquifer Bedrock Generally Unproductive
 - Rf: Regionally Important Aquifer - Fissured Bedrock
 - Rkc: Regionally Important Aquifer - Karstified (conduit)
 - Rkd: Regionally Important Aquifer - Karstified (diffuse)

LIMERICK CITY AND COUNTY COUNCIL

Aquifer Classification	
LIMERICK CITY AND COUNTY COUNCIL Local Authority Climate Action Plans	
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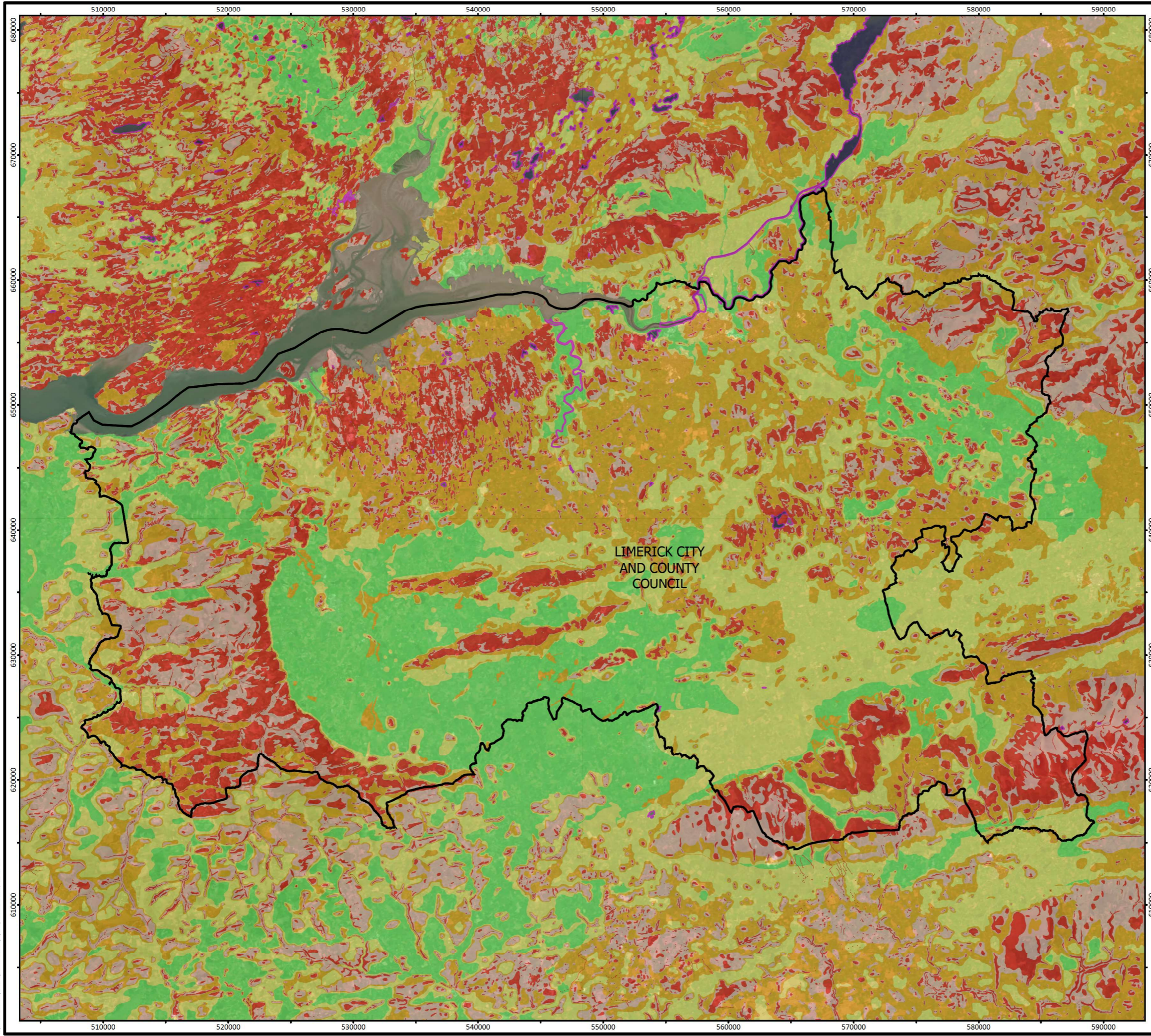


- Legend**
- Local Authority Boundaries
 - Wells and Springs (10-50m Accuracy)
 - Wells and Springs (50-100m Accuracy)
 - Wells and Springs (100-200m Accuracy)
 - Wells and Springs (200-500m Accuracy)
 - Wells and Springs (500m-1km Accuracy)

Wells and Springs	
LIMERICK CITY AND COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.14
CLIENT: LIMERICK CITY AND COUNTY COUNCIL	
DATE: 15/08/2023	SCALE: 1:300,000 @ A3



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 Path: R:\Map Production\2023\P23-076\Workspaces\SEA\SEA_ER_Fig_4-14 Wells and Springs.aprx



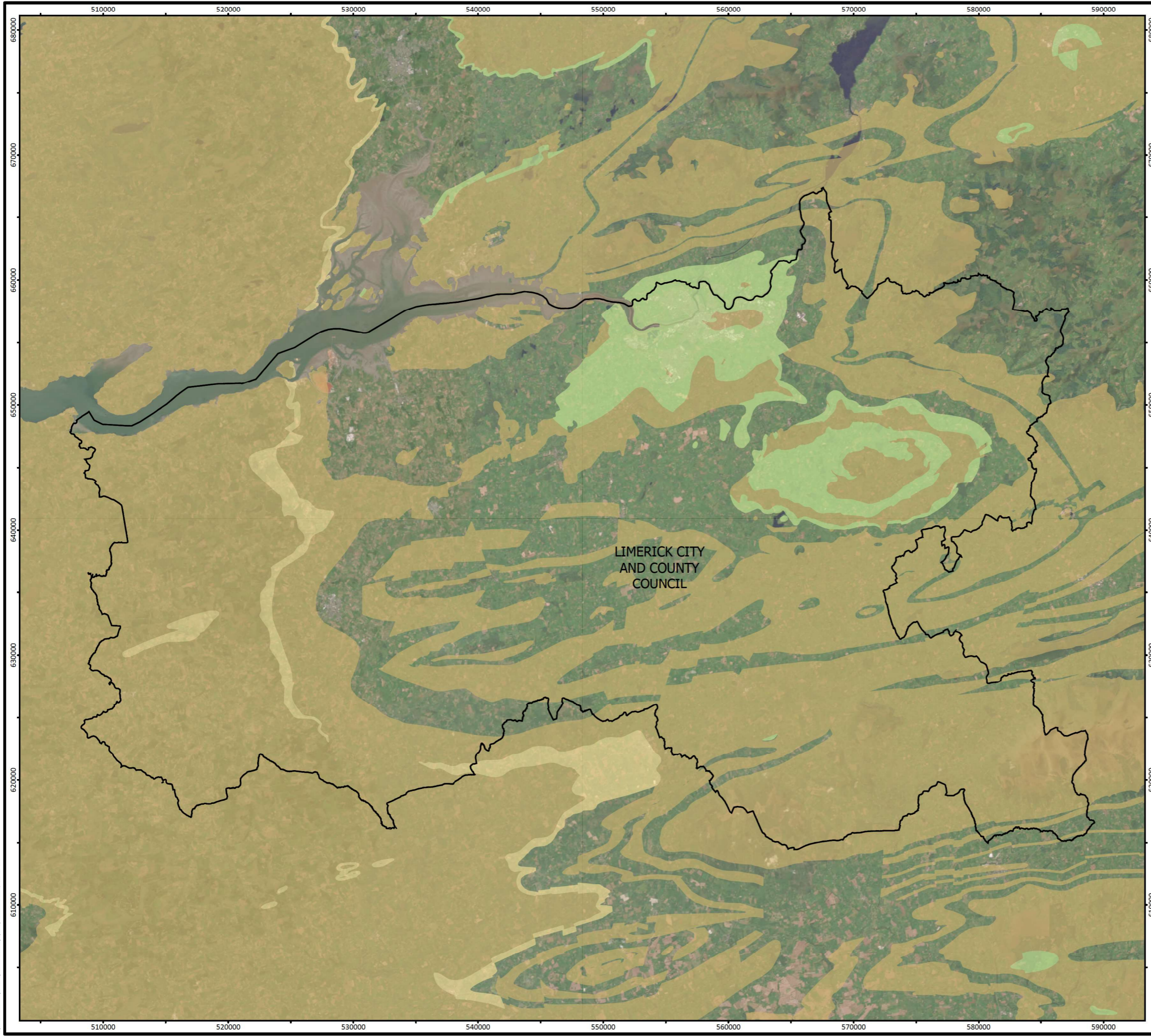
- Legend**
- Local Authority Boundaries
 - Groundwater Vulnerability**
 - E - Extreme
 - H - High
 - M - Moderate
 - L - Low
 - Water
 - X - Rock Near Surface or Karst

Groundwater Vulnerability	
LIMERICK CITY AND COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.15
CLIENT:	LIMERICK CITY AND COUNTY COUNCIL
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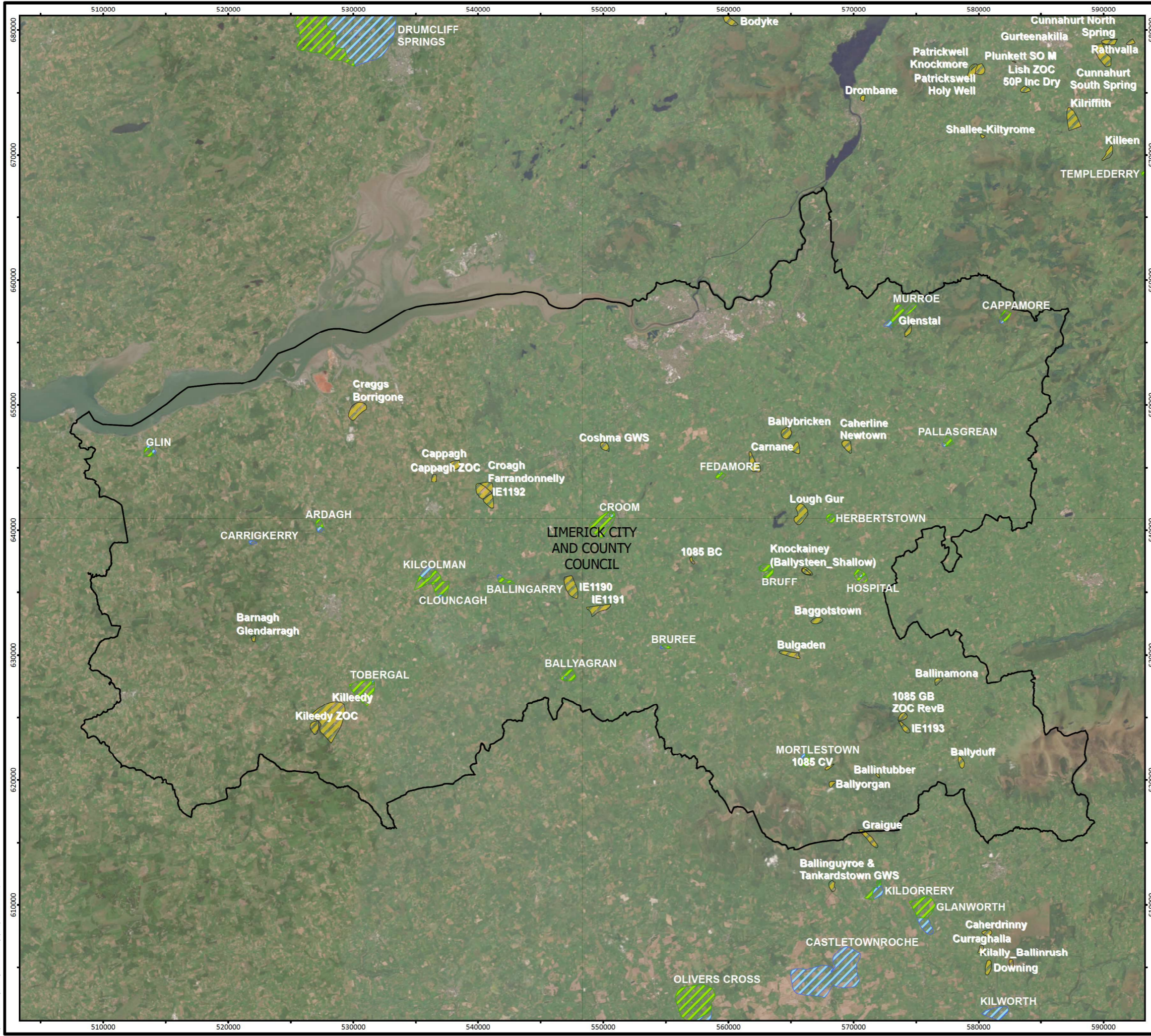
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- Legend**
- Local Authority Boundaries
- Bedrock Aquifers**
- Ll: Locally Important Aquifer - Bedrock Mod Productive Locally
 - Lm: Locally Important Aquifer - Bedrock Generally Mod Productive
 - Pu: Poor Aquifer Bedrock Generally Unproductive

Groundwater Productivity	
LIMERICK CITY AND COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.16
CLIENT: LIMERICK CITY AND COUNTY COUNCIL	
DATE: 15/08/2023	SCALE: 1:300,000 @ A3





Legend

- Local Authority Boundaries
- GSI Source Protection Areas**
 - Source Protection Area (Inner)
 - Source Protection Area (Outer)
 - Group Scheme Preliminary Source Protection Areas

Drinking-water Source Protection Areas

LIMERICK CITY AND COUNTY COUNCIL
Local Authority Climate Action Plans

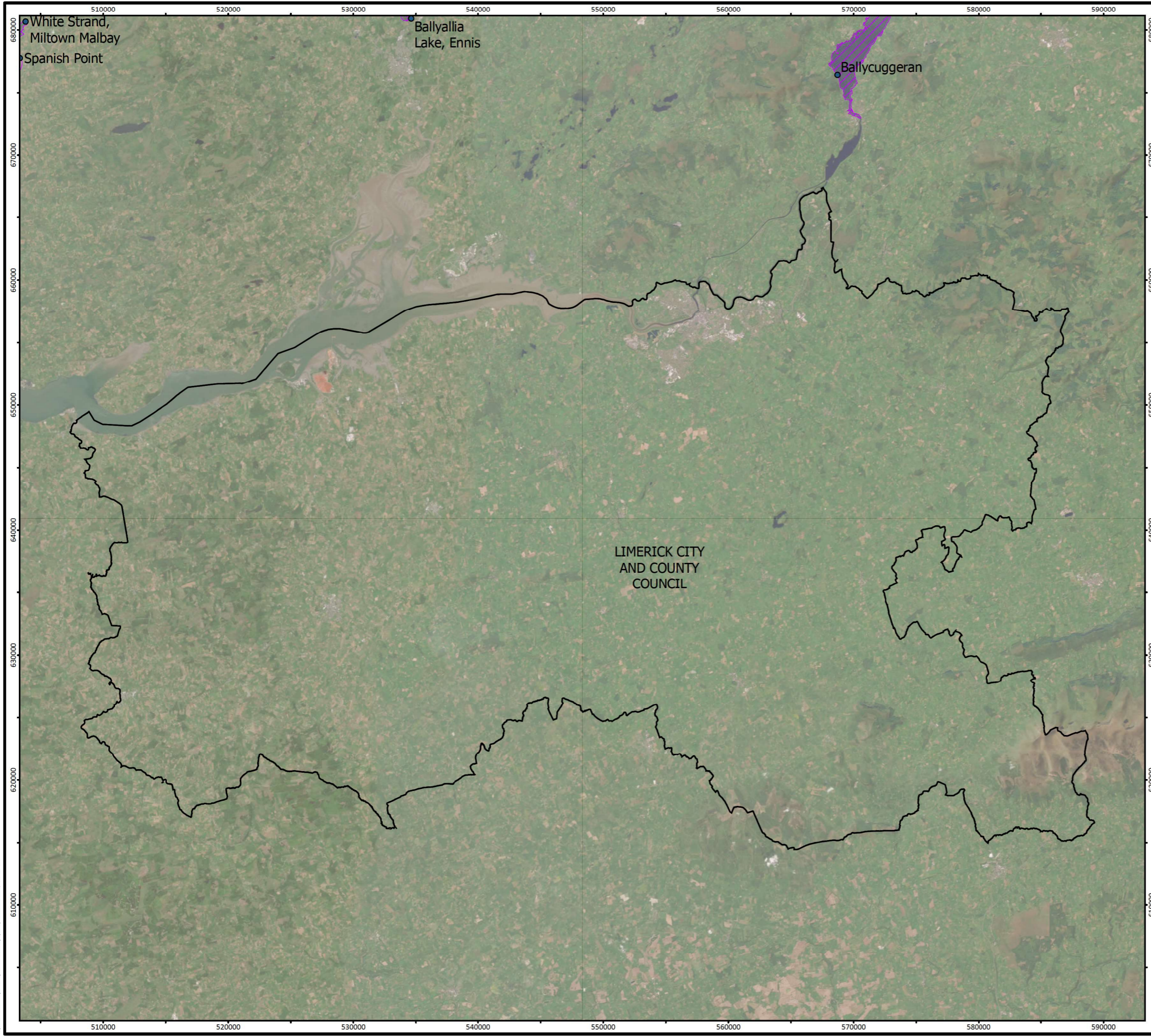
FIGURE NO: 4.17





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 Path: R:\Map Production\2023\17-076\Workspaces\SEA\SEA_ER_Fig4-17 Drinking-water Source Protection Areas.aprx

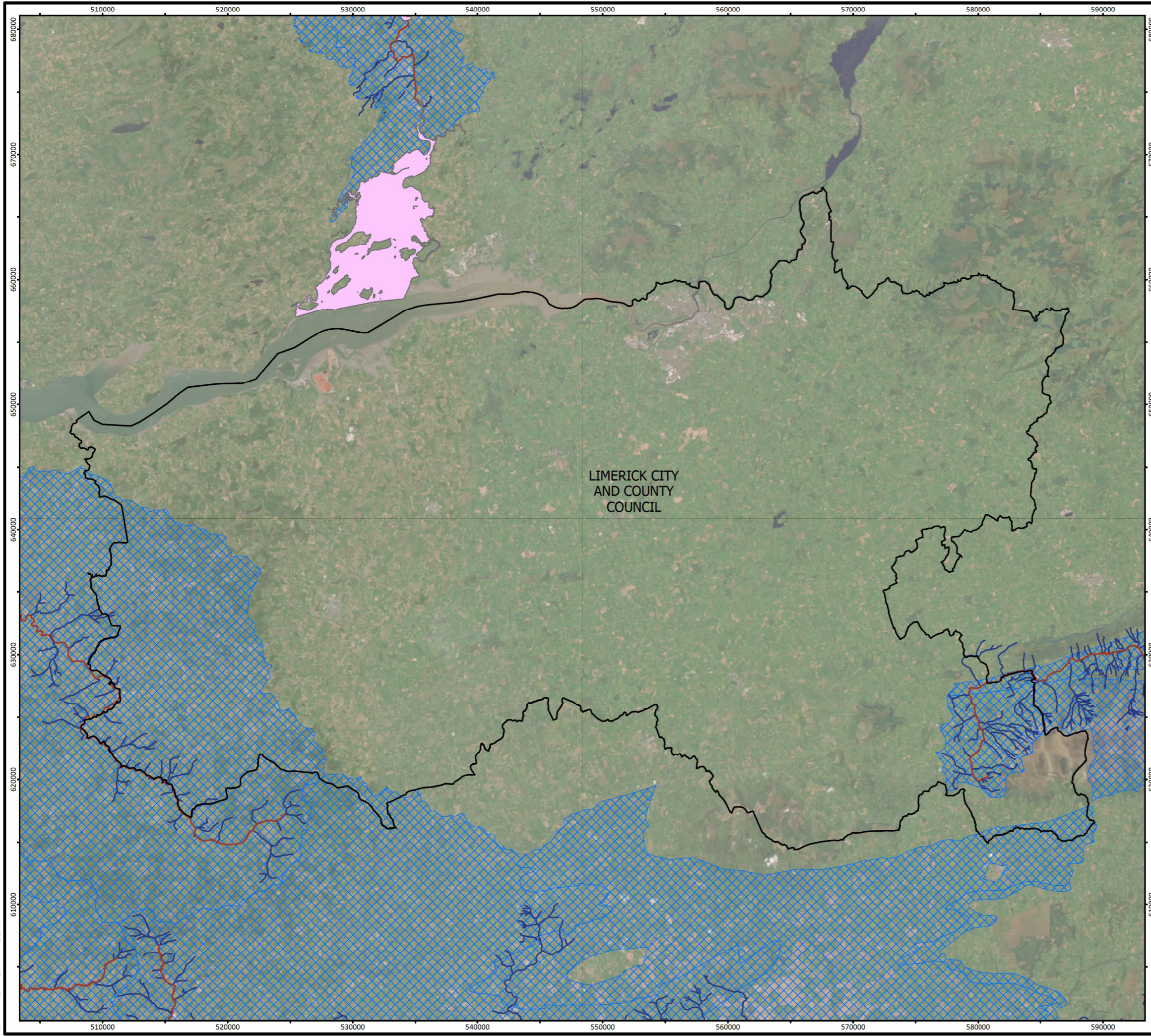


- Legend**
-  Local Authority Boundaries
 -  WFD Bathing Water Areas Polygon Features - graphic representation of beach only
 -  WFD Surface Water Polygons that intersect with BATH_BathingLocations Point Feature dataset
 -  Designated Bathing Water Locations Point Features (Officially Designated Beach)

WFD Register of Protected Areas	
Bathing Water Areas	
LIMERICK CITY AND COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.18a
CLIENT: LIMERICK CITY AND COUNTY COUNCIL	
DATE: 16/08/2023	SCALE: 1:300,000 @ A3
	



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

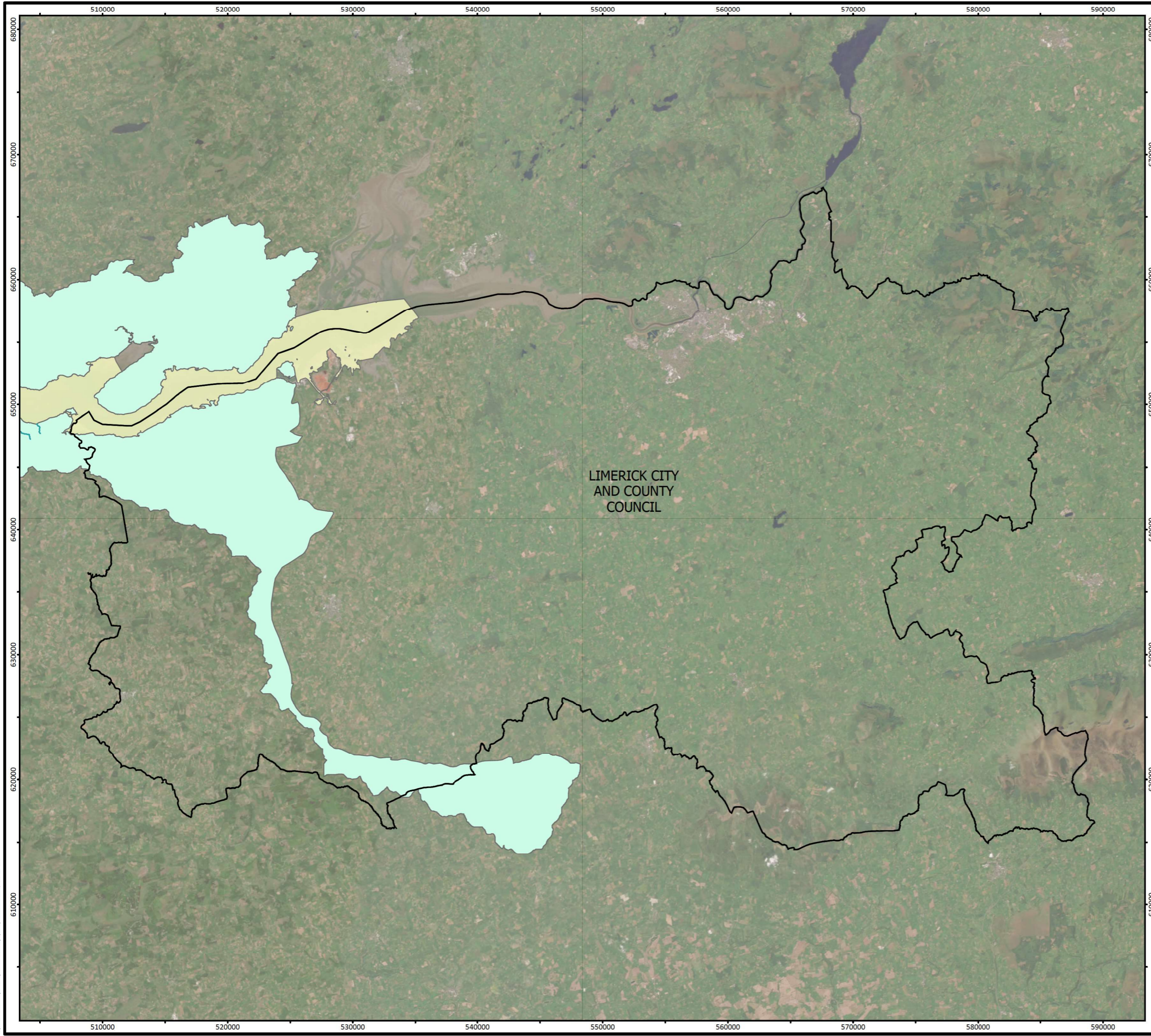






- Legend**
- Local Authority Boundaries
 - Officially designated under S.I. 293/1988
 - WFD Groundwater Bodies that intersect with Designated Salmonid Waters
 - WFD Groundwater Bodies that intersect with Designated Salmonid Waters
 - WFD Surface Water Polygons that intersect with Designated Salmonid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

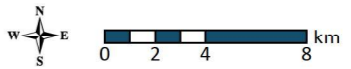
WFD Register of Protected Areas	
Salmonid	
LIMERICK CITY AND COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.18b
CLIENT: LIMERICK CITY AND COUNTY COUNCIL	
DATE: 16/08/2023	SCALE: 1:300,000 @ A3



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



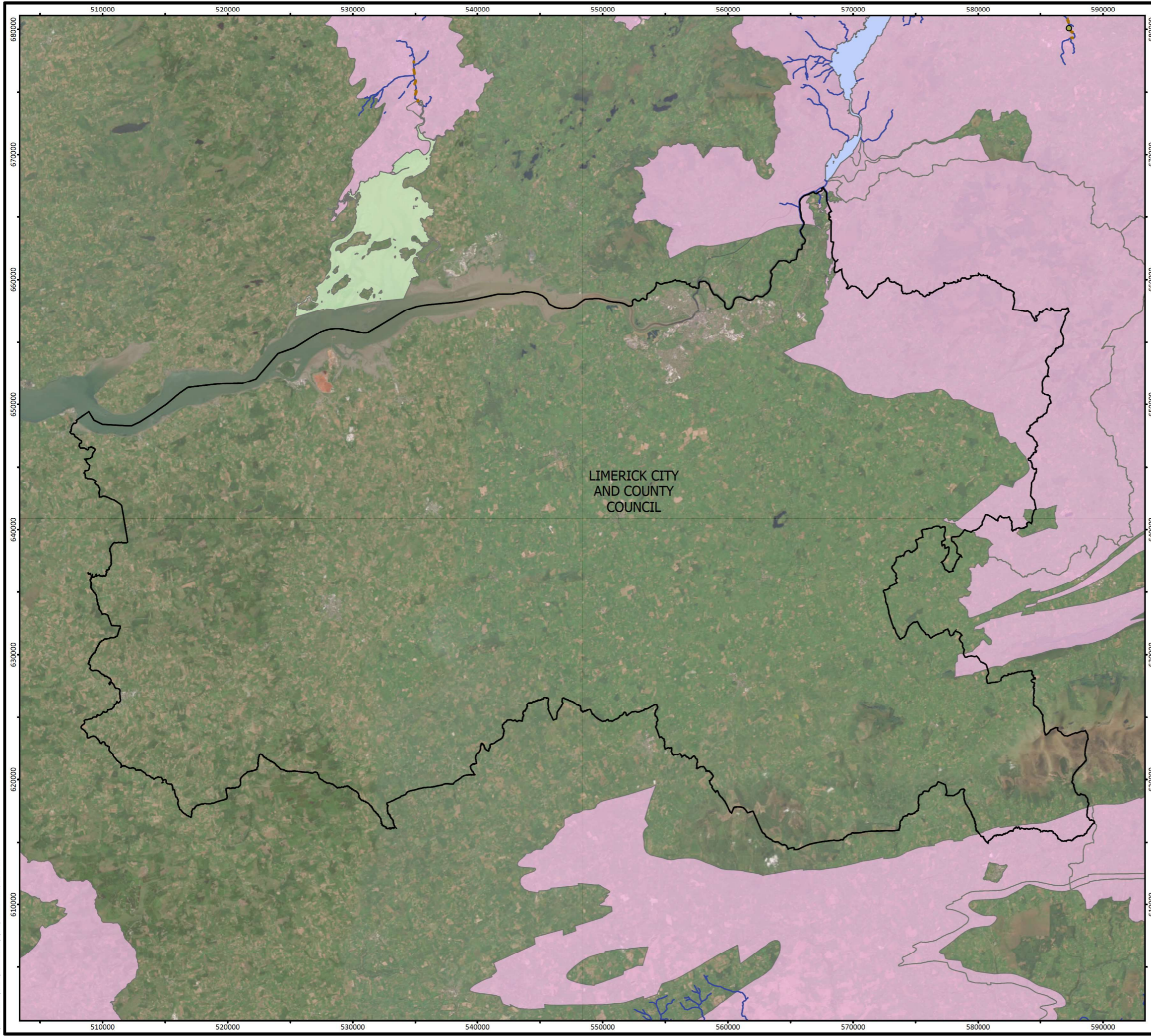
- Legend**
-  Local Authority Boundaries
 -  WFD Riverwater Bodies that intersect with WFD_RPA_Shellfish
 -  WFD Surface Water Polygons that intersect with WFD_RPA_Shellfish
 -  WFD Groundwater Bodies that intersect with WFD_RPA_Shellfish

WFD Register of Protected Areas	
Shellfish Areas	
LIMERICK CITY AND COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.18c
CLIENT:	LIMERICK CITY AND COUNTY COUNCIL
DATE: 16/08/2023	SCALE: 1:300,000 @ A3
	



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

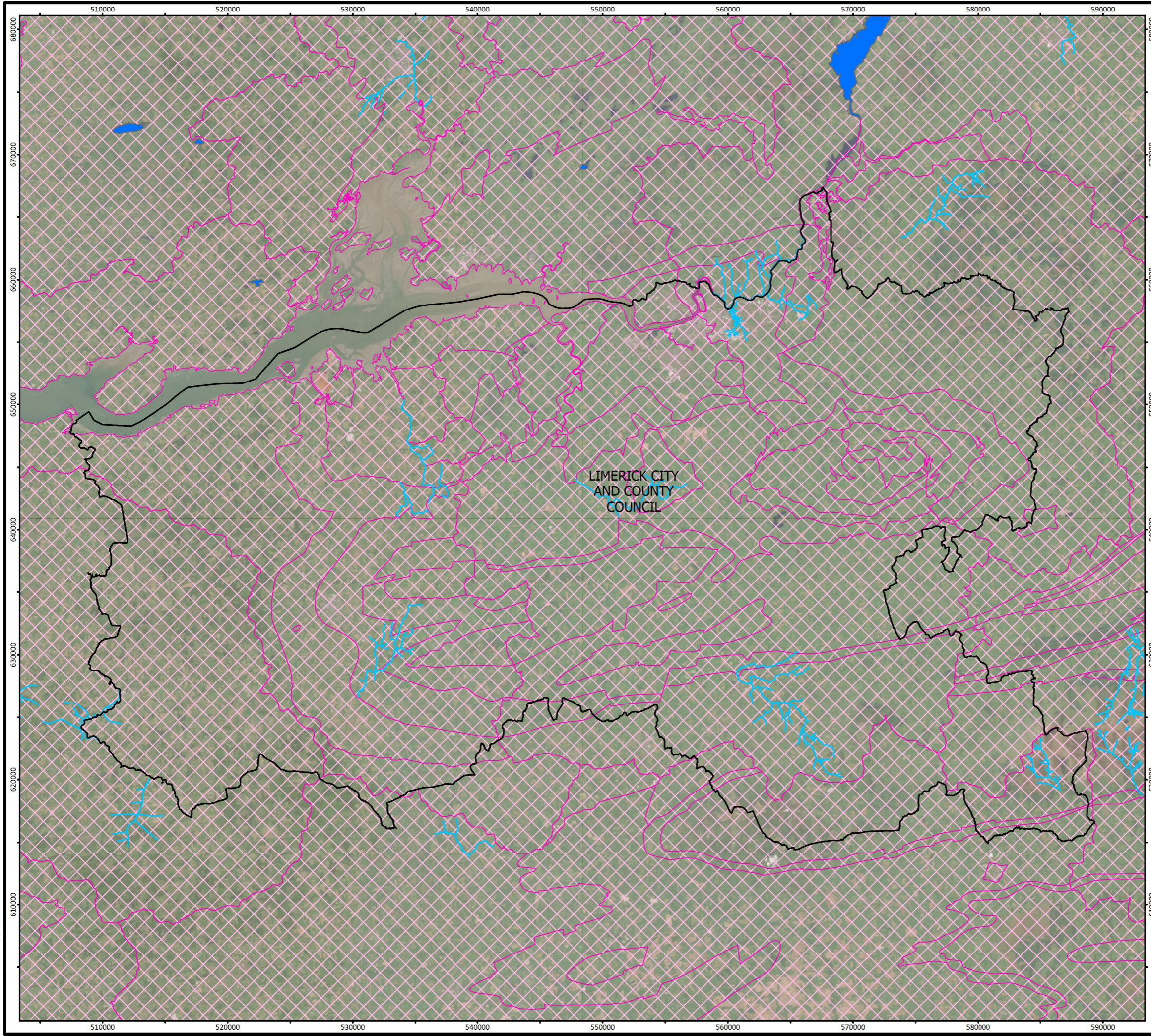
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- Legend**
- Local Authority Boundaries
 - Designated Nutrient Sensitive Points
 - WFD Riverwater Bodies that intersect with Designated Nutrient Sensitive Areas (Pts, Polyline or Polygons)
 - Designated Nutrient Sensitive WFD_RiverwaterBodies
 - WFD 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

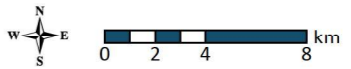
WFD Register of Protected Areas	
Nutrient Sensitive Areas	
LIMERICK CITY AND COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.18d
CLIENT:	LIMERICK CITY AND COUNTY COUNCIL
DATE: 16/08/2023	SCALE: 1:300,000 @ A3





- Legend**
-  Local Authority Boundaries
 -  WFD Riverwater Bodies that are protected for drinking water
 -  WFD Lakewater bodies that are protected for drinking water
 -  WFD Groundwaters that are protected for drinking water

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WFD Register of Protected Areas	
Drinking Water	
LIMERICK CITY AND COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.18e
CLIENT:	LIMERICK CITY AND COUNTY COUNCIL
DATE: 16/08/2023	SCALE: 1:300,000 @ A3
	





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 has been considered in the SEA. Other material assets covered by the SEA include archaeological and architectural heritage and natural resources of economic value, such as soil⁵⁸, air and water.

4.10.1 Water Services

4.10.1.1 *Wastewater*

Wastewater demand and capacity information at settlements that have been considered by the SEA, where available, includes⁵⁹:

- 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 report⁶⁰ '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. 4 urban areas in Limerick are listed as priority areas; Foynes, Glin, Limerick and Hospital.

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.

⁵⁸ Soil and geological resources have been considered under this topic including with respect to mineral locations and aggregate potential.

⁵⁹ Detailed water services information will inform the preparation of the SEA Environmental Report.

⁶⁰ Available at [Monitoring & Assessment: Wastewater | Environmental Protection Agency \(epa.ie\)](https://www.epa.ie/monitoring/assessment/wastewater/)



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, Limerick was guided by the Southern Region 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 previous 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

Limerick is traversed by seven major roads networks – the M7, the M20, the N18, the N24, the N20, the N21 and the N69. The County is served by several Iarnród Éireann's Intercity Rail lines. Further to this, TFI Bus Éireann and Local Link, Irish Citylink and a number of other private operators provide bus services to the County and its rural areas. Upcoming transport and active travel projects that will serve the County have been 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. Limerick also considers Blue Infrastructure as the River Shannon is a critical asset that will promote a vibrant waterfront for the County. The Council has developed the Limerick City and Environs Green and Blue Infrastructure Strategy⁶¹ which will inform and guide the planning and management of a network of multi-functional green and blue spaces, helping to drive the transition to a low carbon and climate resilient society.

The existing Green Infrastructure in the County, most of which are iconic in nature, include the Shannon Estuary and River Shannon, the upland areas such as the Ballyhouras and Galtees, Curragh Chase Forest Park and People's Park.

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.

⁶¹ Available at [Limerick City and Environs Green and Blue Infrastructure Strategy.pdf](#)



4.10.7 Coastline

Although Limerick has no exposed sea coastline, the County borders the tidal zone of the Shannon Estuary.

4.10.8 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 County – and any associated Plan provisions – have been considered by the SEA.

4.10.8.1 *Energy Related Material Assets and Infrastructure*

SEAI (2020⁶²) 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 2020⁶³). This is an important feature of Limerick's function.

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)⁶⁴
- 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

⁶² SEAI. 2020. SEI01 - Energy Balance data resource; Available at [SEI01 - Energy Balance \(ktoe\) - Datasets - data.gov.ie](https://data.gov.ie/datasets/sei01-energy-balance-ktoe)

⁶³ SEAI. 2020. Overall renewable energy share - available at [Renewables | Energy Statistics In Ireland | SEAI](https://www.seai.ie/energy-statistics-in-ireland)

⁶⁴ [Energy Offshore Renewable - Datasets - data.gov.ie](https://data.gov.ie/datasets/energy-offshore-renewable)



- Waterways Ireland

4.10.9 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.
- 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; the Wild Atlantic Way Operational Programme and the Hidden Heartlands Regional Development Strategy were launched, and the global brand successes resulted in infrastructure demands to previously less trafficked areas. Fáilte Ireland has recently published their four regional brand strategies⁶⁵ which will define the spatial scope and spread of future tourism developments within Ireland. At a county level, LCCC has developed the Limerick Tourism Development Strategy Action Plan 2019-2023⁶⁶. Cultural Heritage sites also support heritage-related tourism and recreation, see Section 3.5. Landscape is also an important aspect in terms of Tourism.

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

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

⁶⁵ Wild Atlantic Way, Dublin's a Breath of Fresh Air, Ireland's Ancient East and Ireland's Hidden Heartlands.

⁶⁶ Available at [Limerick-Tourism-Development-Strategy-Action-Plan.pdf](#)



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.

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 Studies⁶⁷

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.

⁶⁷ Office of Public Works (2021) Catchment-based Flood Risk Assessment and Management (CFRAM) Programme [gov.ie](http://www.gov.ie) - [CFRAM Programme \(www.gov.ie\)](http://www.gov.ie)



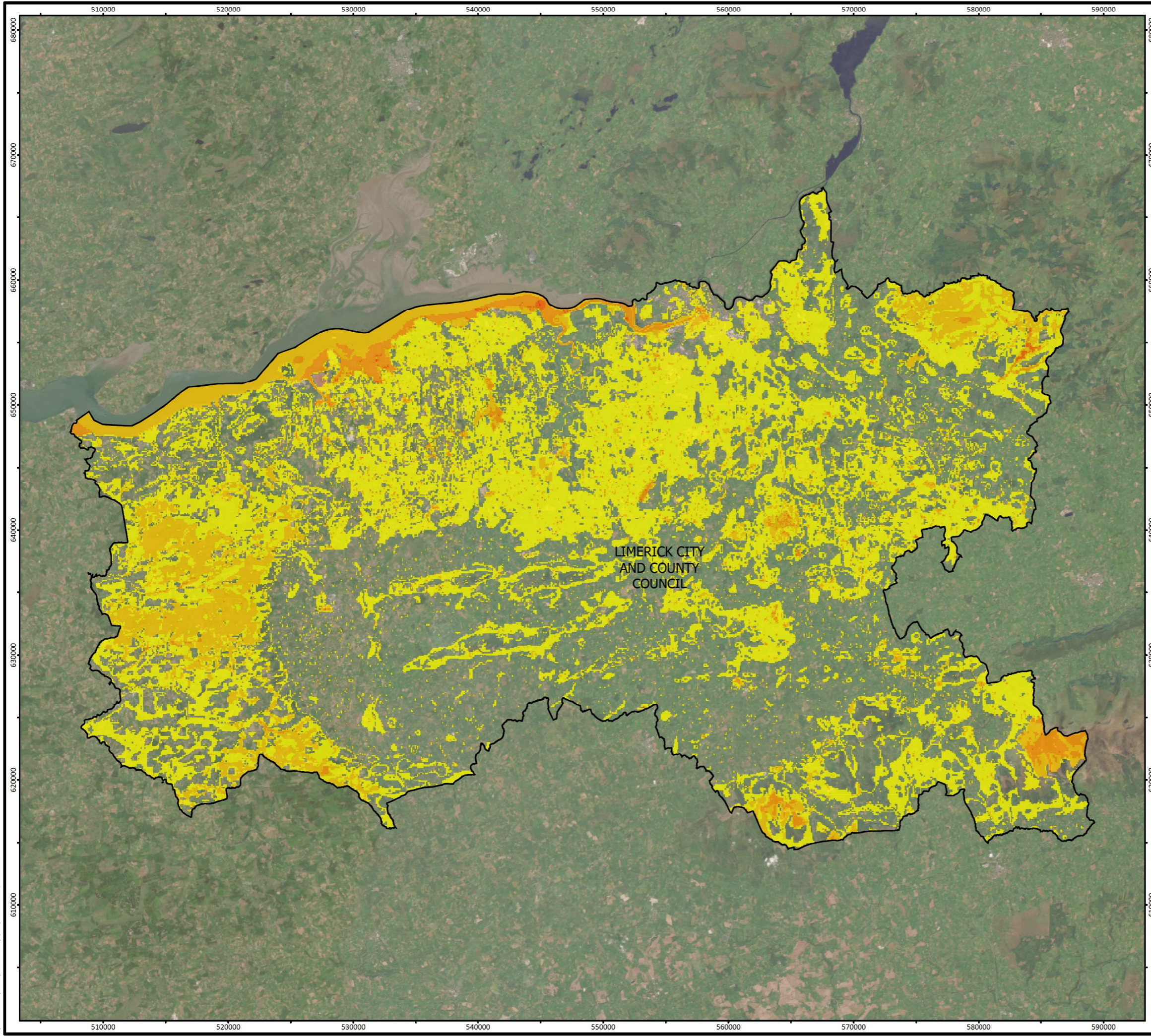
4.13 Constraints and Opportunities

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

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.

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Legend

- Local Authority Boundaries
- Constraints & Opportunities
 - 0-1
 - 1-2
 - 2-3
 - 3-4
 - 4-5
 - 5-6

Constraints and Opportunities	
LIMERICK CITY AND COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.19
CLIENT:	LIMERICK CITY AND COUNTY COUNCIL
DATE:	08/09/2023
SCALE:	1:300,000 @ A3





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 Limerick County 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 LCCC's Biodiversity Action Plan and Local Area Plans (LAPs) for the County.

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 County 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 County. The likelihood of exceedances of ambient air quality standards in the County 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 LCCC'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 County.
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. ⁶⁸
	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.

⁶⁸ '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 county 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 LCCC'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.

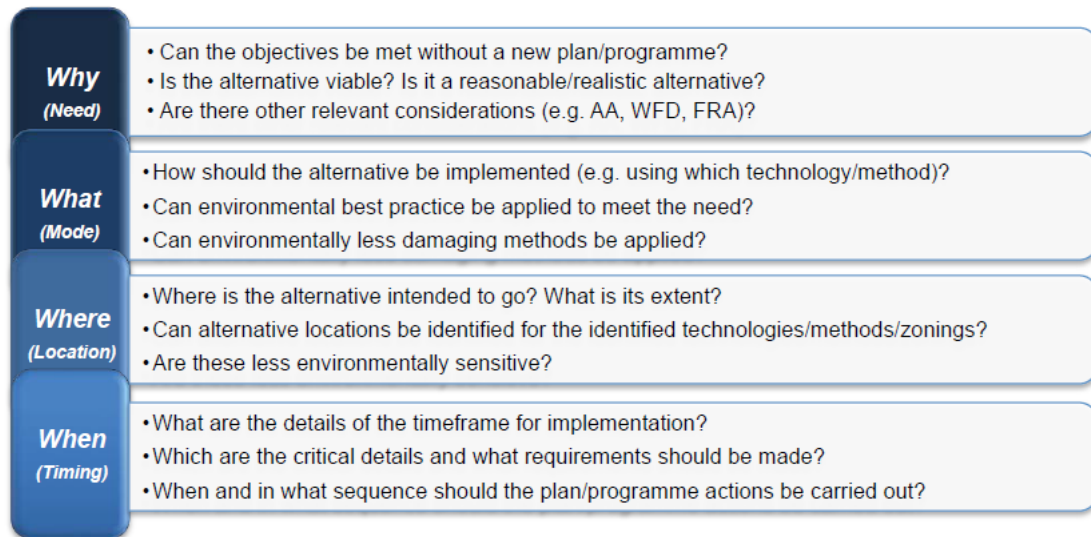


Figure 6-1: 'Why? What? Where? When?' Model for framing alternatives - Adapted from Figure 4.3 Developing and Assessing Alternatives in the Strategic Environmental Assessment Process (EPA, 2015).

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).
<p>Alternative 1 - The Pareto Approach: Prioritise reducing GHG emissions from largest GHG emitting sectors to mitigate against climate change impacts.</p>	<p>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 County that a local authority can reasonably influence having regard to the functions of a local authority - the Residential and Transport sectors.</p>	<p>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 county of Limerick County. The alternative would cover the period from 2024 to 2029 (the duration of the prospective LACAP).</p>
<p>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.</p>	<p>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.</p>	<p>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 county of Limerick County. The alternative would cover the period from 2024 to 2029 (the duration of the prospective LACAP).</p>
<p>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.</p>	<p>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.</p>	<p>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 county of Limerick County. The alternative would cover the period from 2024 to 2029 (the duration of the prospective LACAP).</p>



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 '+').⁶⁹
- Potential Negative Environmental Impact (indicated in the matrix by a '-').⁷⁰
- 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').

⁶⁹ Potential Positive Environmental Impacts are defined as having the potential to support the achievement of an SEO.

⁷⁰ 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.
	B2	0	+	+	
	B3	0	+	+	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.
	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.
	W2	-	+/-	+/-	
	W3	-	+/-	+/-	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.
	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 County - 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 County. 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, cumulative⁷¹, synergistic⁷², 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.

⁷¹ The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects.

⁷² 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 in 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 generate 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, material asset, or existing traffic and transport environments.	PHH, AQN, W, S, BFF, CHH, MA, LU.



Key Environmental Effect	Main Relevant Environmental Component/s
<p>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.</p>	<p>AQN, CC, PHH.</p>
<p>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.</p>	<p>PHH, AQN, W, BFF.</p>



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, 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.).
- 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.
- 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.
- 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** - 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 County - the Residential and Transport sectors.
- **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
T1	Increase the use of public transport through the implementation of the bus connects programme	Attach the following text to the action: "Promote - through control or influence, as appropriate - project adherence to planning and environmental protection criteria."
T2	Develop and implement a park and ride strategy.	Attach the following text to the action: "having due regard to environmental sensitivities such as the receiving water environment, biodiversity, European sites, local air quality, traffic and transport conditions and cultural heritage."
T3	Examine the feasibility of the provision of new greenways either within disused rail lines or immediately adjacent to existing or proposed rail corridors	Attach the following text to the action: "having due regard to environmental sensitivities such as archaeology, European sites, biodiversity and amenity value, and the potential to enhance ecological connectivity"
T4	Implement the Active travel programme in particular the Limerick Metropolitan Cycle Network Study	
T5	Deliver a network of secure, public bicycle and powered personal transportation parking, to accommodate a variety of bike types across the County, including at schools, parks, playgrounds, towns, and villages.	Attach the following text to the action: "having due regard to environmental sensitivities such as the receiving water environment, biodiversity, European sites, and local air quality."



Draft LACAP Action Reference	Draft LACAP Action	Mitigation Measure
T7	Prepare an EV charging strategy to support city / town centre charging as well as destination charging locations	Attach the following text to the action: "having due regard to environmental sensitivities such as the receiving water environment, biodiversity, European sites, local air quality, and cultural heritage."
T10	Implement a bridge rehabilitation programme that is resilient to the impacts of Climate change	Attach the following text to the action: having due regard to the need to appropriately protect and conserve protected structures in accordance with relevant protected structures regulations, and the need to not negatively impinge on any protected species or European sites.
T11	Carry out maintenance and rehabilitation of regional and local roads in accordance with the guidance document on the climate adaptation of regional and local roads	Attach the following text to the action: "having due regard to environmental sensitivities such as the receiving water environment, biodiversity, European sites, and local air quality."
T12	In road construction projects, minimise the use of virgin materials and promote the use of reclaimed asphalt pavement (RAP) or low carbon alternatives	In road construction projects, minimise the use of virgin materials and promote the use of reclaimed asphalt pavement (RAP) or low carbon alternatives. Ensure material reuse takes place in accordance with Regulation 27 and 28 of the Waste management Act and materials reused are inert and environmentally non-hazardous.
T14	Assess individual vehicles of the Class (GVW) available in EV format. Ascertain the minimum annual KM to be of benefit as a change from ICE (Internal Combustion Engine) to EV. Agree a fleet replacement plan to comply with SI-381-2021	Attach the following text to the action: "whilst ensuring appropriate end-of-life management practices are in place for Electric Vehicles under the ownership of local authorities."
T15	For the vehicles that will not migrate to EV, assess EURO Stage emissions and look at replacements with newer improved emission levels. Alternatively switch from DERV to HVO (Hydrotreated Vegetable Oil) proposed test at Park Road depot before rolling out to main depots	Attach the following text to the action: "Ensure renewable fuels procured by the local authority are sourced from sustainable sources."
T16	Assess depots etc for suitability for EV charging and parking to include potential for solar generation to support charging.	Attach the following text to the action: "Ensure development supported by the strategy is delivered in a manner that has due regard to environmental sensitivities (European sites, biodiversity, built heritage, glint and glare impact) and available grid capacity."
B2	Prepare a renewable energy strategy for Limerick incorporating all forms of renewable energy including integrated renewables that will guide the development of new energy infrastructure in the county	Attach the following text to the action: "This strategy shall be informed by planning and environmental protection related considerations and constraints."
B3	Implement the Catchment Flood Risk Management (CFRAM) programme across Limerick following the OPW Plans (2016) for Athea, Adare, Askeaton, Croom, Foynes, Newcastlewest, Rathkeale, Castleconnell and Limerick City and Environs	Attach the following text to the action: "Ensure due regard is given to promoting Sustainable Drainage Systems, nature-based solutions, and environmental sensitivities, including water quality, biodiversity, European sites, riparian corridors and aquatic ecology."



Draft LACAP Action Reference	Draft LACAP Action	Mitigation Measure
B4	To support communities to be make the transition to EV it is necessary to set out a strategy for the development of a public charging network across the county that is based on site suitability, grid capacity and demand. The strategy will identify both on street and off-street options including the provision of eMaaS hubs.	Attach the following text to the action: "Ensure development supported by the strategy is delivered in a manner that has due regard to environmental sensitivities (European sites, biodiversity, built heritage) and available grid capacity."
B7	Support owners of historic building to carry out appropriate retrofitting initiatives by developing guidance and supports	Attach the following text to the action: "having due regard to the need to appropriately protect and conserve protected structures in accordance with relevant protected structures regulations, and the need to not negatively impinge on any protected species."
B8	Partner with the Chamber of Commerce to encourage businesses to carry out energy efficiency upgrade works to their premises and to reduce their carbon emissions	Attach the following text to the action: "having due regard to environmental sensitivities such as local human receptors, protected species, European sites and biodiversity, and the need to appropriately protect and conserve protected structures."
B9	Implement the Blue Green Infrastructure strategy for Limerick City and Environs whose aim is to inform and guide the planning and management of green and blue spaces in Limerick City and Environs, including our rivers, parks and open green spaces, helping drive the transition to a low carbon and climate resilient society.	Attach the following text to the action: "having due regard to opportunities to enhance tourism, recreation and cultural heritage value associated with routes, and environmental sensitivities such as the receiving water environment, local air quality, biodiversity, European sites, and cultural heritage related sensitivities."
B10	Implement the LSMATS Strategy was prepared by the NTA in collaboration with Limerick City and County Council. The strategy aims to deliver a transport system for the region, which will enable it to become an environmentally sustainable and unified metropolitan unit.	Attach the following text to the action: "use influence and control, as appropriate, to promote climate action co-benefits and development project conformance with planning and environmental protection requirements."
B11	Support the implementation of the Shannon Estuary Taskforce Plan sets out recommendations for the delivery of up to 30GW of Atlantic Offshore Wind through the Estuary by 2050, and measures to maximise the industrial development opportunities arising from this.	Attach the following text to the action: "whilst advocating and exerting influence to ensure supported projects promote climate action co-benefits and do not contravene relevant environmental protection criteria or cause significant negative environmental effects."
B16	Install maximum solar PV on appropriate LCCC owned corporate building.	Attach the following text to the action: "whilst having due regard to environmental sensitivities (European sites, biodiversity, glint and glare impacts built heritage)."
B17	Start retrofitting Council owned social housing to reduce carbon emissions as well as addressing fuel poverty	Attach the following text to the action: "having due regard to environmental sensitivities such as local human receptors, European sites and biodiversity, and the need to appropriately protect and conserve protected structures in accordance with relevant protected structures regulations."



Draft LACAP Action Reference	Draft LACAP Action	Mitigation Measure
B18	Make applications to Pathfinder. Pathfinder is a programme operated by SEAI. It provides finance to achieve substantial energy savings by bundling similar large-scale projects. Scale projects together. It is operated by SEAI.	Attach the following text to the action: "having due regard to environmental sensitivities such as biodiversity, European Sites and sensitive human receptors. "
C9	Utilise the facilities of the CIL and other programmes to encourage communities to form SECs	Attach the following text to the action: "Facilitate project adherence to planning and environmental protection requirements."
C12	Deliver Engagement programmes regarding funding opportunities and local development	Attach the following text to the action: "Facilitate project adherence to planning and environmental protection requirements."
N1	A local Biodiversity Action Plan will set out measures to protect and enhance local biodiversity, including climate-relevant measures. Implement relevant actions of the national Bio-diversity Action Plan at local level	Attach the following text to the action: "having due regard to co-benefit opportunities such the maintenance and improvement of water quality in line with the aims of the Water Framework Directive, or the potential for increasing carbon sequestration levels. "
N3	A wetland survey will inform council strategy and planning documents and implement recommendations in terms of conservation and restoration of wetlands.	Attach the following text to the action: having due regard to co-benefit opportunities such the maintenance and improvement of water quality in line with the aims of the Water Framework Directive, or the potential for increasing carbon sequestration levels.
N6	Deliver a habitat protection and creation of new habitats, landscapes, hedgerows strategy.	Reword the action as follows: "Deliver a habitat protection and creation of new habitats, landscapes, and native hedgerows strategy."
N11	Identify urban areas, towns and villages to be greened (tree planting, pollinators, community gardens, sensory gardens, allotments natural play areas)	Amend the text to the following: "Identify urban areas, towns, and villages to be greened (tree planting, pollinators, community gardens, sensory gardens, allotments natural play areas) using native species."
N13	Investigate community tree planting and biodiversity enrichment programmes (Mini-Forest initiatives)	Attach the following text to the action: "using native species."
N16	Meet annual inspection targets as per EPA National Agriculture Inspection Plan	Attach the following text to the action : "while ensuring sustainable transport modes are used to travel to and from inspection sites, where feasible."
E1	Investigate the development of composting centres to promote circularity of green waste	Attach the following text to the action: "having due regard to planning and environmental considerations and constraints."
Decarbonisation Zone Actions		
Project	Description	Suggested Amendments
Historic building retrofit programme	Support the retrofitting of historic buildings through the development of new business models including the establishment of a sustainable investment fund	Attach the following text to the action: "having appropriate regard to the need to protect and conserve the architectural or cultural heritage value that may be associated with such buildings, and protected species that may be present in such buildings."
District Heating	Idea - Combined waste heat from local sources. Feasibility study required	Attach the following text to the action: "Ensure such a report has appropriate regard to planning and environmental protection considerations."



Draft LACAP Action Reference	Draft LACAP Action	Mitigation Measure
District Heating at Colbert Station	In conjunction with LDA development of the Colbert Quarter support the development of district heating on a community scale.	Attach the following text to the action: "Promote - through control and influence as appropriate - development taking place in accordance with relevant planning and environmental protection requirements."
River turbine	+City xChange project has developed a tidal turbine which has obtained planning permission	Attach the following text to the action: "Ensure the project adheres to planning permission conditions relating to proper planning, sustainable development and environmental protection."
Solar roof top	The potential for roof sharing should be examined	Attach the following text to the Action: "Due regard shall be had to environmental sensitivities relevant to solar projects, including built heritage, visual impact and biodiversity related sensitivities."
Freight management delivery and service strategy	This is a recommendation in LSMATS. The removal of heavy goods vehicles from the city centre would greatly improve air quality in the city centre	It is recommended that a feasibility study undertaken to ensure a net improvement to air quality through this action.
Behavioural Change/Active Travel/Travel planning for workplaces and schools	Active travel are continuing to develop and implement a range of initiatives in the areas of safe school, and cycling networks that connect the city	Attach the following text to the action: "Ensure the active travel network is planned in a manner that has due regard to environmental sensitivities such as the receiving water environment, local air quality, biodiversity, European sites and cultural heritage."
Promote and Facilitate EVs	Develop an EV charging strategy for the city centre	Attach the following text to the action: "having due regard to ensuring disabled access to EV charging, and environmental sensitivities such as the receiving water environment, biodiversity, European sites, local air quality, cultural heritage."
Car club - EVs	Support the roll out of EV car clubs and infrastructure in the DZ	
LSMATS Park and Ride Hubs	Hubs at strategic locations outside city to reduce traffic coming into the city.	Attach the following text to the action: "Ensure such development promotes climate action co-benefits, including SuDS and nature based solutions, and does not contravene relevant environmental protection criteria or cause significant negative environmental effects."
Tree Planting	Tree planting offers the potential to address the heat island effect which will become more pronounced as global warming increases. There is potential to increase planting and greening across the city.	Ensure efforts are made to use native Irish trees to support local biodiversity.
Blue Green Infrastructure	The Blue Green Infrastructure delivers a vital role in addressing climate change (e.g. through surface water and flood management, storing greenhouse gases, providing habitats for wildlife) whilst providing a wide range of benefits and supports. The Limerick BGI Strategy presents a road map for its integration across the city and environs.	Attach the following text to the action: "having due regard to environmental sensitivities such as archaeology, European sites, biodiversity and amenity value, and the potential to enhance ecological connectivity"
City Flood Relief Scheme	City Flood Relief Scheme: The scheme will help protect the biodiversity of the Shannon Estuary	Attach the following text to the action: "having due regard to environmental sensitivities such as archaeology, European sites, biodiversity and amenity value, and the potential to enhance ecological connectivity"



Draft LACAP Action Reference	Draft LACAP Action	Mitigation Measure
Innovation area/R & D park	Give support to novel food R & D, including Vertical urban farming, Protein from fermentation	Give support to sustainable novel food R & D, including Vertical urban farming, Protein from fermentation

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 maximize 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 all development underpinned or supported by climate action is planned and implemented in a manner that appropriately considers the potential for environmental co-benefits, potential environmental impacts and environmental protection requirements. No climate action related development project that is likely to have significant negative effects on the receiving environment shall be supported.
Flood projects, or related maintenance works, shall be carried out in a manner that promotes climate action-biodiversity related co-benefits, and shall have due regard for the protection and enhancement of rare, protected or important habitats and species.
Ensure climate action related projects are carried out in a manner that promotes climate action-cultural heritage co-benefits, and do not result in unauthorized physical damage to cultural, archaeological or architectural features, or unauthorized or inappropriate alteration of the context of sensitive cultural heritage features.
Ensure climate action related projects are carried out in a manner that promotes climate action water quality co-benefits, and align with the provisions of the Water Framework Directive and relevant River Basin Management Plan.
Promote climate action projects that support protected trees, hedgerows and other habitats such as wetlands, flood zones 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 county.
Ensure all projects supported by the council have taken the necessary precautions to identify and manage invasives species, particularly with regard to Schedule III species. No 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 County 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 County. 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 County 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.

Limerick City and County 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 Limerick City and County 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 County.	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 county defined in the County Development Plan (CDP) or County Local Area Plans.	No contravention of policies and land use objectives protective/supportive of economic development in the county defined in the CDP or County Local Area Plans. 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. No contravention of policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the County's Biodiversity Action Plan.	Internal monitoring of compliance with CDP Policy Objectives. Internal monitoring of compliance with the County 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 County's Biodiversity Action Plan.	Planning permission 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 ⁷³ .	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.
	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).	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 consented that have significant greenspace proposals.	Internal monitoring of likely significant environmental effects of development projects.

⁷³ '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
			Number of developments consented that have significant greenspace proposals.		
	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 County 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 consented that have significant greenspace proposals. Improved biodiversity areas (Area km ² /length metres). Compliance of development supported by the plan with policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the County's Biodiversity Action Plan.	No contravention of policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the CDP. Increase number of developments consented that have significant greenspace proposals. Increase quantum of improved biodiversity areas. No contravention of policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the County's Biodiversity Action Plan. Consent for development proposals supported by the plan only to be granted where development complies with policy supportive of biodiversity protection and enhancement.	Internal monitoring of compliance with CDP Policy Objectives. Internal monitoring of compliance with the County Biodiversity Action Plan. Internal monitoring of likely significant environmental effects of development projects.
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 consented that result in avoidable adverse impacts on Landscape Character	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.	Internal monitoring of compliance with CDP Policy Objectives. Internal monitoring of likely significant environmental effects of development projects.



Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
			Areas, the Seascape, High Amenity Zones, Historic Landscape Character Areas and Views and Prospects.	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.	
	L2	Avoid or minimise adverse visual effects on residential receptors or other sensitive visual receptors.	Number of developments consented 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.
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.



Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
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 consented that result in avoidable adverse air quality impacts on sensitive receptors. Number of exceedances of ambient air quality standards in the County, 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 defined in the CDP relating to the protection of air quality. Minimise ambient air quality standard exceedances in the County.	Internal monitoring of likely significant environmental effects of development projects. Consultation with the EPA. Review of EPA Air Quality Monitoring undertaken in the County.
	AQN3	Avoid or minimise adverse noise impacts.	Number of sensitive receptors exposed to noise nuisance.	No sensitive receptors exposed to nuisance noise in the County.	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.	EPA surface water monitoring data and reports. EPA bathing water monitoring data and reports.



Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
				Implementation of the objectives of the second cycle of the national River Basin Management Plan.	
	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.
	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) consented 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 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	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.



Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
			management, energy and transport infrastructure.		Consultation with Irish Water, Gas Networks Ireland, ESB Networks and Transport Infrastructure Ireland.
	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 county. Total Area of road reallocated for sustainable alternatives (m ²).	Percentage increase in the number of public transport users in the County Increase kilometres of permanent segregated cycling network. Increase kilometres of permanent segregated cycling network. Increase number of Electric Vehicle charging points in the county. 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 County. Reduce waste generation in the County.	EPA Waste Statistics. Consultation with the EPA.
	MAI5	Promote sustainable water use and drainage management.	Level of water use in the County. Compliance with Sustainable Drainage System (SuDS) related development management standards defined in the CDP.	Reduced water use in the county. 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.



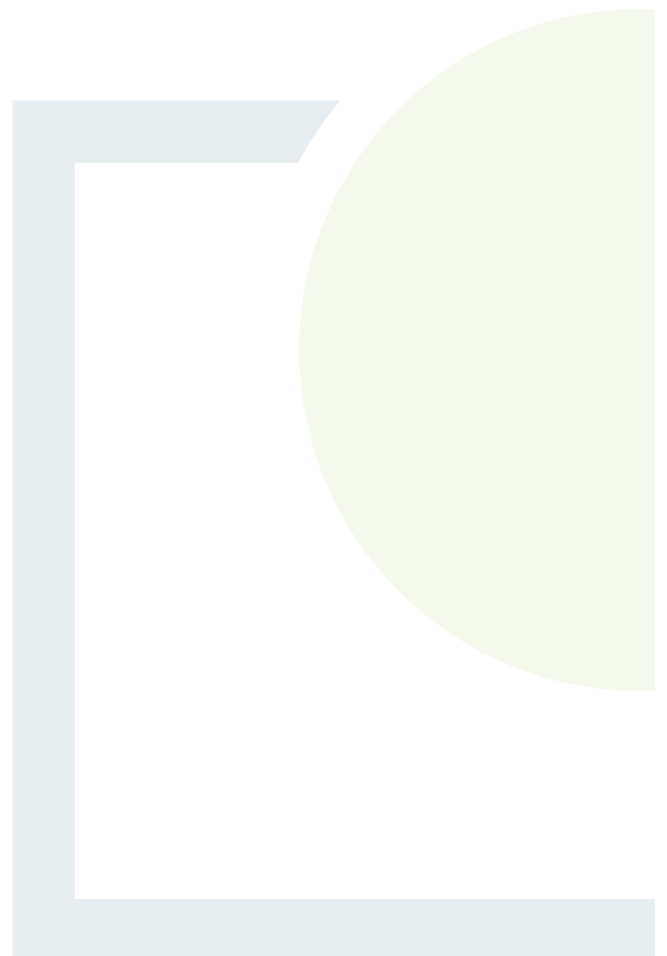
Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
Tourism & Recreation	TR1	Avoid or minimise effects upon tourism and recreation amenities.	Visitor trips to local authority functional area	Stable or increasing number of visitor trips to local authority functional area	Fáilte Ireland Data on Tourism Performance
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 County. Level of renewable energy infrastructure in the County.	Reduce GHG emissions associated with the Energy sector in the County. Increase the level of renewable energy infrastructure in the County.	EPA National Emission Inventory. Baseline Emission Inventory for the County. Megawatt hour (MWh) output from renewable energy infrastructure in the county.
	CF2	Actively support the delivery of all national climate policy as appropriate to the county with the prioritisation and acceleration of evidence-based measures.	Level of GHG emissions in the County	Reduce GHG emissions for all sectors in the County.	EPA National Emission Inventory. Baseline Emission Inventory for the County.
	CF3	CF3: Assist in the delivery of the climate neutrality objective at local and community levels.	Level of GHG emissions in the County. Level of GHG emissions in the Decarbonising Zone. Net addition of tree cover added.	Reduce GHG emission in the County to Net Zero. Reduce Decarbonising Zone GHG emissions to Net Zero. Increase level of tree cover in the County.	EPA National Emission Inventory. Baseline Emission Inventory for the County. 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 consent.	Increase the number of blue and green infrastructure measures included as part of development projects that have been granted consent.	Review of granted consents.



CONSULTANTS IN ENGINEERING,
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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 inter-related Plans or Programmes, 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 Plan or Programme, Directive or Regulation 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)	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Carry out an 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.
EIA Directive (2011/92/EU as amended by 2014/52/EU)	<ul style="list-style-type: none"> • Requires the assessment of the environmental effects of public and private projects which are likely to have significant effects on the environment. 	<ul style="list-style-type: none"> • All projects listed in Annex I are considered as having significant effects on the environment and require an EIA. 	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

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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. 	<p>the objectives of the regulatory framework for environmental protection and management.</p>
<p>Habitats Directive (92/43/EEC)</p>	<ul style="list-style-type: none"> • 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. • Promote the maintenance of biodiversity, taking account of economic, social, cultural and regional requirements. 	<ul style="list-style-type: none"> • 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. 	<p>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.</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Birds Directive (2009/147/EC)	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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	<p>This Directive lays down provisions for:</p> <ul style="list-style-type: none"> • 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.
EU Nitrates Directive (91/676/EC)	Reducing water pollution caused or induced by nitrates from agricultural sources and - preventing further such pollution.	<p>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:</p> <ul style="list-style-type: none"> • a limit on the amount of livestock manure applied to the land each year 	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

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
		<ul style="list-style-type: none"> • set periods when land spreading is prohibited due to risk • set capacity levels for the storage of livestock manure 	framework for environmental protection and management.
<p>Directive 2010/75/EU on industrial emissions. Transposed by:</p>	<p>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.</p>	<p>The legislation covers industrial activities in the following sectors:</p> <ul style="list-style-type: none"> • 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. <p>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.</p>	<p>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.</p>
<p>EU Plant Protection (products) Directive 2009/127/EC</p>	<ul style="list-style-type: none"> • 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). 	<ul style="list-style-type: none"> • 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. 	<p>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.</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
EU Renewable Energy Directive (EU/2018/2001)	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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. 	<p>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.</p>
Directive 2018/2001 on the promotion of the use of energy from renewable sources (recast)	<p>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.</p>	<p>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.</p>	<p>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.</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
	Provisions on joint projects between Member States and between Member States and third countries are laid down too.	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.	
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.
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.	<ul style="list-style-type: none"> • 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. 	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
		<ul style="list-style-type: none"> • 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. • Progressively increasing the efficient energy consumption in heat or cold supply, also in district heating. 	
<p>EU Seveso Directive (2012/18/EU)</p>	<p>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.</p>	<ul style="list-style-type: none"> • 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. 	<p>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.</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
EU Maritime Spatial Planning Directive (2014/89/EU)	<p>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.</p>	<ul style="list-style-type: none"> • 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. • 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. 	<p>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.</p>
Marine and Coastal Access Act 2009	<ul style="list-style-type: none"> • 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. 	<p>The Marine Act comprises eight key elements:</p> <ul style="list-style-type: none"> • Marine Management Organisation (MMO) • Strategic Marine Planning System • Streamlined Marine Licensing System • Marine Nature Conservation • Fisheries Management and Marine Enforcement 	<p>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</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
		<ul style="list-style-type: none"> • Migratory and Freshwater Fisheries • Coastal Access • Coastal and Estuarine Management 	framework for environmental protection and management.
Biodiversity Strategy for 2030 - Bringing nature back into our lives (European Commission, 2020)	<p>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.</p>	<p>The Strategy contains specific commitments and actions to be delivered by 2030, including:</p> <ul style="list-style-type: none"> • 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. • 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. 	<p>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.</p>

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EU Green Infrastructure Strategy	Aims to create a robust enabling framework in order to promote and facilitate Green Infrastructure (GI) projects.	<ul style="list-style-type: none"> • 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.
UNESCO (1972) The Convention for the Protection of the World Cultural and Natural Heritage	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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.	<p>The Convention has three main goals:</p> <ul style="list-style-type: none"> • 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

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			and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
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)	<p>The UN Kyoto Protocol set of policy measures to reduce greenhouse gas emissions.</p> <p>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.</p> <p>At the Paris climate conference (COP21) in December 2015, 195 countries adopted the first-ever universal, legally binding global climate deal.</p>	<ul style="list-style-type: none"> • 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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	<p>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.</p>		
<p>EU 2020 Climate and Energy Package</p>	<ul style="list-style-type: none"> • 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. 	<p>Four pieces of complimentary legislation:</p> <ul style="list-style-type: none"> • 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. 	<p>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.</p>
<p>EU 2030 Framework for Climate and Energy</p>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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. 	<p>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.</p>

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<p>The Clean Air for Europe Directive (2008/50/EC) (EU Air Framework Directive)</p> <p>Fourth Daughter Directive (2004/107/EC)</p>	<ul style="list-style-type: none"> • 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 (PM₁₀) or up to five years (NO₂, 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. 	<ul style="list-style-type: none"> • 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. 	<p>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.</p>
<p>Noise Directive (2002/49/EC)</p>	<p>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.</p>	<p>The Directive requires competent authorities in Member States to:</p> <ul style="list-style-type: none"> • 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 	<p>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.</p>

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		<ul style="list-style-type: none"> • Inform and consult the public about noise exposure, its effects, and the measures considered to address noise. <p>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.</p>	
Floods Directive (2007/60/EC)	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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)	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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. • Prepare and implement a River Basin Management Plan for each river basin districts identified and a Register of Protected 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.

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	<ul style="list-style-type: none"> Promote sustainable water usage. 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 	<ul style="list-style-type: none"> Establish a programme of monitoring for surface water status, groundwater status and protected areas. Recover costs for water services. 	
Groundwater Directive (2006/118/EC)	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> 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. 	<p>Key features of the revised Directive are:</p> <ul style="list-style-type: none"> 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

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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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 	<p>the objectives of the regulatory framework for environmental protection and management.</p>
<p>Urban Waste Water Treatment Directive (91/271/EEC)</p>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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. 	<p>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.</p>
<p>Environmental Liability Directive (2004/35/EC) as amended by Directive 2006/21/EC, Directive 2009/31/EC and Directive 2013/30/EU</p>	<p>Establish a framework of environmental liability based on the 'polluter-pays' principle, to prevent and remedy environmental damage.</p>	<ul style="list-style-type: none"> 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. 	<p>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.</p>

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		<ul style="list-style-type: none"> • 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. 	

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<p>Marine Strategy Framework Directive (2008/56/EC), as amended</p>	<p>The aim of the European Union's ambitious Marine Strategy Framework Directive is to protect more effectively the marine environment across Europe.</p>	<p>The Directive provides various requirements, including:</p> <ul style="list-style-type: none"> • 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. <p>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.</p>	<p>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.</p>
<p>European Convention on the Protection of the Archaeological Heritage (Valletta 1992)</p>	<p>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.</p>	<p>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.</p>	<p>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.</p>

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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.	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • (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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<p>Council of Europe Framework Convention on the Value of Cultural Heritage for Society (Faro 2005)</p>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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. 	<p>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.</p>
<p>European Landscape Convention 2000</p>	<p>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.</p>	<ul style="list-style-type: none"> • Promote protection, management and planning of landscapes. • Organise European co-operation on landscape issues. 	<p>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.</p>

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<p>The Seventh Environmental Action Programme (EAP) of the European Community (2013-2020)</p>	<p>It identifies three key objectives:</p> <ul style="list-style-type: none"> • 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 	<p>Four so called "enablers" will help Europe deliver on these objectives (goals):</p> <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • To make the Union's cities more sustainable. • To help the Union address international environmental and climate challenges more effectively. 	<p>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.</p>
<p>Bern Convention (Convention on the Conservation of European Wildlife and Natural Habitats)</p>	<p>The convention has three main aims:</p> <ul style="list-style-type: none"> • 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 	<p>The Parties under the convention recognise the intrinsic value of nature, which needs to be preserved and passed to future generations, they also:</p> <ul style="list-style-type: none"> • 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 Caucasus. • 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. • Develop an extensive number of species action plans, codes of conducts, and guidelines, at their own initiative or in co- operation with other organisations. 	<p>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.</p>

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		<ul style="list-style-type: none"> Created the Emerald Network, an ecological network made up of Areas of Special Conservation Interest. 	
Cancun Agreements (2010)	<p>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:</p> <ul style="list-style-type: none"> Mitigation Transparency of actions Technology Finance Adaptation Forests Capacity building 	<p>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.</p>	<p>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.</p>
Doha Climate Gateway (2012)	<p>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.</p>	<ul style="list-style-type: none"> 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. 	<p>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.</p>

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EU Common Agricultural Policy	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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.
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.	<p>The aims are achieved by applying REACH, namely:</p> <ul style="list-style-type: none"> Registration, Evaluation, Authorisation; and Restriction of chemicals. <p>REACH also aims to enhance innovation and competitiveness of the EU chemicals industry.</p>	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.	<ul style="list-style-type: none"> 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 	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
		<ul style="list-style-type: none"> • 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 	
Ramsar Convention	<p>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”.</p>	<p>Under the “three pillars” of the Convention, the Contracting Parties commit to:</p> <ul style="list-style-type: none"> • 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. 	<p>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.</p>
OSPAR Convention	<p>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.</p>	<p>OSPAR's work is organised under six strategies:</p> <ul style="list-style-type: none"> • Biodiversity and Ecosystem Strategy • Eutrophication Strategy • Hazardous Substances Strategy • Offshore Industry Strategy • Radioactive Substances Strategy • Strategy for the Joint Assessment and Monitoring Programme <p>These six strategies fit together to underpin the ecosystem approach. For each strategy a programme of work is designed and implemented annually.</p>	<p>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.</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
<p>European 2020 Strategy for Growth</p>	<p>Europe 2020 sets out a vision of Europe’s social market economy for the 21st century and puts forward three mutually reinforcing priorities:</p> <ul style="list-style-type: none"> • Smart growth: developing an economy based on knowledge and innovation; • Sustainable growth: promoting a more resource efficient, greener and more competitive economy; • Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion. 	<p>In order to reach these priorities, the Commission proposes five quantitative targets to fulfil by 2020:</p> <ol style="list-style-type: none"> 1. 75 % of the population aged 20-64 should be employed; 2. 3% of the EU’s GDP should be invested in R&D; 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. 	<p>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.</p>
<p>The European Green Deal (EGD) 2019</p>	<p>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.</p>	<ul style="list-style-type: none"> • 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 	<p>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.</p>

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<p>EU (2018) Clean Air Policy Package</p>	<p>Aims to substantially reduce air pollution across the EU.</p>	<p>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.</p>	<p>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.</p>
<p>European Commission’s Communication on the energy transition of the fisheries and aquaculture sector as part of its Fisheries Policy Package</p>	<p>The main objectives of the measures defined in this communication are to promote the use of cleaner energy sources and reduce dependency on fossil fuels in the fisheries and aquaculture sector, in line with one of the ambitions of the European Green Deal to reach climate neutrality in the EU by 2050.</p>	<p>The communication defines various measures to support the sector in accelerating its energy transition, by improving fuel efficiency and switching to renewable, low-carbon power sources. A summary of the measures broadly proposed by the communication is presented below:</p> <ul style="list-style-type: none"> • Creation of an Energy Transition Partnership for EU Fisheries and Aquaculture for the purpose of promoting collaboration and stakeholder engagement • Promotion of new innovative technologies and ways of operating • Improving energy efficiency <p>Moving to renewable and zero or low-carbon energy sources (e.g. use of alternative fuels).</p>	<p>The communication noted the current dependency of the sector on fossil fuel based energy (e.g., marine diesel). It defines a vision for climate-neutral fisheries and aquaculture.</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
National Level			
Ireland 2040 - Our Plan, the National Planning Framework, and the National Development Plan (2021 - 2030)	<ul style="list-style-type: none"> 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. 	<p>The National Planning Framework published alongside the National Development Plan yields ten National Strategic Outcomes as follows:</p> <ol style="list-style-type: none"> 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 	<p>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.</p>
Planning, Land Use and Transport Outlook 2040 [In Preparation]	<p>The PLUTO will take account of forecasted future economic and demographic scenarios, affordability considerations and relevant Government policies and will:</p> <ul style="list-style-type: none"> Quantify in broad terms the appropriate scale of financial investment in land transport over the long term; Consider how fiscal, environmental and technological developments might impact on this investment; and, 	<p>In preparation.</p>	<p>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.</p>

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	<ul style="list-style-type: none"> Identify strategic priorities for future investment to ensure land transport infrastructure provision facilitates the objectives of Project Ireland 2040. 		
Planning and Development Act 2000 (as amended)	<p>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.</p>	<ul style="list-style-type: none"> 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. 	<p>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.</p>

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<p>European Communities (Environmental Assessment of Certain Plans and Programmes Regulations 2004 (S.I. 435 of 2004), as amended by S.I. 200 of 2011</p>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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). 	<p>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.</p>
<p>European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011, as amended)</p>	<p>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.</p>	<ul style="list-style-type: none"> 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. 	<p>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.</p>
<p>Waste Management Act 1996, as amended</p>	<p>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.</p>	<p>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.</p>	<p>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.</p>

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<p>European Communities Environmental Objectives (Freshwater Pearl Mussel) Regulations 2009 (S.I. 296 of 2009)</p>	<p>The purpose of these Regulations is to support the achievement of favourable conservation status for freshwater pearl mussels</p>	<p>Actions:</p> <ul style="list-style-type: none"> • 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 	<p>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.</p>
<p>European Communities Environmental Objectives (Groundwater) Regulations 2016 (S.I. No. 366 of 2016)</p>	<p>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.</p>	<p>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.</p> <ul style="list-style-type: none"> • 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 	<p>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.</p>

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		<ul style="list-style-type: none"> 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 	
<p>S.I. No. 113/2022 - European Union (Good Agricultural Practice for Protection of Waters) Regulations 2022</p>	<p>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.</p>	<p>The Regulations include measures such as:</p> <ul style="list-style-type: none"> 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. 	<p>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.</p>
<p>National legislation transport the Industrial Emissions Directive:</p> <ul style="list-style-type: none"> Environmental Protection Agency Act 1992, amended by the Protection of the Environment Act 2003; and 	<p>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. This legislation transposes the provision of the Directive</p>	<p>The legislation covers industrial activities in the following sectors:</p> <ul style="list-style-type: none"> energy; metal production and processing; minerals; chemicals; waste management; 	<p>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.</p>

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<ul style="list-style-type: none"> 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 		<ul style="list-style-type: none"> and other sectors such as pulp and paper production, slaughterhouses and the intensive rearing of poultry and pigs. <p>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.</p>	
<p>Bathing Water Quality Regulations 2008 (S.I. 79 of 2008)</p>	<p>These Regulations provide for transposition of the EU Bathing Water Directive 2006 (Directive 2006/7/EC of 15 February 2006) which aims:</p> <ul style="list-style-type: none"> To improve health protection for bathers 	<ul style="list-style-type: none"> 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. 	<p>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</p>

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	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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”. • 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. 	<p>the objectives of the regulatory framework for environmental protection and management.</p>

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Bathing Water Quality (Amendment) Regulations 2011 (S.I 351 of 2011)	<p>This Regulation defines further the minimum number of bathing water samples required to carry out a bathing water quality assessment.</p>	<p>Further defines the minimum number of bathing water samples required to carry out a bathing water quality assessment.</p>	<p>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.</p>
Climate Action and Low Carbon Development (Amendment) Act 2021	<p>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.</p>	<p>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:</p> <ul style="list-style-type: none"> • 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. 	<p>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.</p>

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Climate Action Plan 2023	<p>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.</p>	<p>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</p>	<p>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.</p>
Ireland’s Second National Implementation Plan for the Sustainable Development Goals (2022 - 2024)	<ul style="list-style-type: none"> • 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. 	<p>The Plan identifies five strategic objectives to guide implementation:</p> <ul style="list-style-type: none"> • 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 	<p>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.</p>

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Clean Air Strategy for Ireland (2023)	<p>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.</p>	<ul style="list-style-type: none"> • 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. 	<p>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.</p>
EirGrid’s Grid25 Strategy and associated Grid25 Implementation Programme 2017 - 2022	<ul style="list-style-type: none"> • 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.” 	<p>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.</p>	<p>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.</p>
Strategy for the Future Development of National and Regional Greenways (2018)	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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, 	<p>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.</p>

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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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; 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)	<ul style="list-style-type: none"> 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. 	<p>The key objectives of the plan are to:</p> <ul style="list-style-type: none"> 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 	<p>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.</p>

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<p>Draft National Strategic Plan for Aquaculture Development 2030 [Awaiting publication]</p>	<p>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 framework for funding under EMFAF, as well as other EU and national initiatives.</p>	<ul style="list-style-type: none"> • 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. • 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. 	<p>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.</p>
<p>Construction 2020, A Strategy for a Renewed Construction Sector</p>	<ul style="list-style-type: none"> • 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. 	<p>This Strategy therefore addresses issues including:</p> <ul style="list-style-type: none"> • 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; 	<p>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.</p>

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		<ul style="list-style-type: none"> • 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. 	
<p>National Landscape Strategy for Ireland 2015-2025 and National Landscape Character Assessment</p>	<ul style="list-style-type: none"> • 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.” 	<p>The objectives of the National Landscape Strategy are to:</p> <ul style="list-style-type: none"> • 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. 	<p>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.</p>

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<p>National Hazardous Waste Management Plan (EPA) 2021 - 2027</p>	<p>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.</p> <p>Section 26 of the Waste Management Act 1996 as amended, sets out the overarching objectives for the National Hazardous Waste Management Plan. In this context, the following objectives are included as priorities for the revised Plan period:</p> <ul style="list-style-type: none"> • 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. 	<p>The revised Plan makes 20 recommendations under the following topics:</p> <ul style="list-style-type: none"> • Policy and Regulation • Prevention • Collection and Treatment • Implementation 	<p>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.</p>

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<p>National Ports Policy 2013</p>	<p>The core objective of National Ports Policy is to facilitate a competitive and effective market for maritime transport services.</p>	<p>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.</p>	<p>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.</p>
<p>National Aviation Policy 2015</p>	<p>Specifically, the principal goals of this National Aviation Policy are:</p> <ul style="list-style-type: none"> • To enhance Ireland’s connectivity by ensuring safe, secure and competitive access responsive to the needs of business, tourism and consumers; • 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. 	<p>The National Aviation Policy commits to:</p> <ul style="list-style-type: none"> • Maintaining safety as the number one priority in Irish aviation and ensuring that safety regulation is robust, effective and efficient; • 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 	<p>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.</p>

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Ministerial Guidelines such as Sustainable Rural Housing Guidelines and Flood Risk Management Guidelines	<p>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.</p>	<p>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.</p>	<p>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.</p>
HSE Healthy Ireland Framework for Improved Health and Wellbeing 2013-2025	<p>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.”</p>	<p>These four goals are interlinked, interdependent and mutually supportive:</p> <ul style="list-style-type: none"> • 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 	<p>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.</p>
National Marine Planning Framework 2021	<p>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.</p>	<p>The National Marine Planning Framework is a succinct strategic document that will deal with, inter alia, the following environmental, social and economic issues:</p> <ul style="list-style-type: none"> • 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; 	<p>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.</p>

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<p>Tourism Policy Statement: People, Place and Policy – Growing Tourism to 2025</p>	<p>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.</p>	<ul style="list-style-type: none"> • Transboundary interactions with other jurisdictions. <p>The Tourism Policy Statement sets three headline targets to be achieved by 2025:</p> <ul style="list-style-type: none"> • 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. 	<p>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.</p>
<p>Tourism Strategy for Northern Ireland: 10 Year Plan</p>	<ul style="list-style-type: none"> • This Strategy will be published in 2024. • The plan sets out a 10-year plan for the growth of the tourism sector in Northern Ireland., with an aim to increase the value of tourism to the economy by 50-75% compared to 2019. • Vision is to “Establish Northern Ireland as a year-round world class destination which is renowned for its authentic experiences, landscape, heritage and culture and which benefits communities, the economy and the environment, with sustainability at its core.” 	<p>The strategic goals and core themes of the Strategy are:</p> <ul style="list-style-type: none"> • Innovative • Inclusive • Sustainable • Attractive • Collaborative <p>The document identifies the key challenges and drivers for growth.</p>	<p>Implementation of the 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.</p>

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<p>Our Sustainable Future: A framework for Sustainable Development for Ireland 2012</p>	<p>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.</p>	<p>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.</p>	<p>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.</p>
<p>National Investment Framework for Transport in Ireland (NIFTI) 2021</p>	<ul style="list-style-type: none"> • 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. 	<p>The four investment priorities stated in NIFTI are:</p> <ul style="list-style-type: none"> • Mobility of people and goods in urban areas. • Protection and renewal. • Enhanced regional and rural connectivity. • Decarbonisation. 	<p>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.</p>
<p>National Adaptation Framework (NAF) 2018 and associated regional, local and sectoral adaptation plans (including transport)</p>	<p>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</p>	<ul style="list-style-type: none"> • 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. 	<p>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.</p>

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		<ul style="list-style-type: none"> 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)	<p>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.</p>	<p>2030 will represent a significant milestone, meaning:</p> <ul style="list-style-type: none"> 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. 	<p>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.</p>
Wildlife Act of 1976 Wildlife (Amendment) Act, 2000	<p>The act provides protection and conservation of wild flora and fauna.</p>	<ul style="list-style-type: none"> 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 	<p>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.</p>
Actions for Biodiversity (2017- 2021) Ireland's National Biodiversity Plan	<p>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.</p>	<ul style="list-style-type: none"> 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. To conserve and restore biodiversity and ecosystem services in the wider countryside. 	<p>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.</p>

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		<ul style="list-style-type: none"> • 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. <p>To substantially strengthen the effectiveness of international governance for biodiversity and ecosystem services.</p>	
National Broadband Plan (2012)	Sets out the strategy to deliver high speed broadband throughout Ireland.	<p>The Plan sets out:</p> <ul style="list-style-type: none"> • 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)	<ul style="list-style-type: none"> • 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. • Planning authorities and An Bord Pleanála are required to have regard to the Guidelines in carrying out their functions under the Planning Acts. 	<ul style="list-style-type: none"> • 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. • Improve the understanding of flood risk among relevant 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.

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		<ul style="list-style-type: none"> • 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. <p>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.</p>	
<p>European Communities (Water Policy) Regulations of 2003 (SI 722 of 2003)</p> <p>European Communities (Water Policy) Regulations of 2003 (SI 350 of 2014)</p> <p>European Communities Environmental Objectives (Surface waters) Regulations of 2009 (SI 272 of 2009)(as amended)</p>	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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. • Outlines environmental objectives to be achieved for surface water bodies. • Outlines surface water quality standards. 	<p>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.</p>

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		<ul style="list-style-type: none"> 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	<p>The Water Pollution Acts allow Local Authorities the authority regulate and supervise actions relating to water in their division.</p>	<p>The Water Pollution Acts enable local authorities to:</p> <ul style="list-style-type: none"> 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. 	<p>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.</p>
Water Services Act 2007 Water Services (Amendment) Act 2012 Water Services Act (No. 2) 2013 Water Services Act 2017	<ul style="list-style-type: none"> 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. 	<p>Key strategic objectives include:</p> <ul style="list-style-type: none"> 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. 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 	<p>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.</p>

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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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. 	
Irish Water’s (now known as Uisce Eireann) Water Services Strategic Plan 2015 and associated Proposed Capital Investment Plan (2020 - 2024)	<p>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.</p>	<p>Six strategic objectives as follows:</p> <ul style="list-style-type: none"> 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. 	<p>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.</p>
Raised Bog SAC Management Plan and Review of Raised Bog Natural Heritage Areas 2017 - 2022	<p>Aims to meet nature conservation obligations while having regard to national and local economic, social and cultural needs</p>	<ul style="list-style-type: none"> 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. 	<p>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.</p>

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		<ul style="list-style-type: none"> 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. 	
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.
Rural Environmental Protection Scheme (REPS) Agri-Environmental Options Scheme (AEOS)	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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. 	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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Green, Low-Carbon, Agri- environment Scheme (GLAS)		<ul style="list-style-type: none"> • Implement nutrient management plans and grassland management plans. • Protect and maintain water bodies, wetlands and cultural heritage. 	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	<p>At a more detailed level, the programme also:</p> <ul style="list-style-type: none"> • 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.
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.	<p>The proposed Forestry Programme 2023-2027 contains a series of eight different interventions:</p> <ul style="list-style-type: none"> • 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.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
River Basin Management Plan	River Basin Management Plans set out the measures planned to maintain and improve the status of waters.	<ul style="list-style-type: none"> • 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.	<p>Objectives of the Strategy:</p> <ul style="list-style-type: none"> • 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. • To ensure that Ireland’s peatlands are sustainably managed so that their benefits can be enjoyed responsibly. • 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. 	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 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.
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	Targets for alternative fuel infrastructure include the following: <ul style="list-style-type: none"> • AFV forecasts • Electricity targets • Natural gas (CNG, LNG) targets • Hydrogen 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

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
	alternative fuels are also included within the scope of the Framework.	<ul style="list-style-type: none"> • Biofuels targets • LPG targets • Synthetic and paraffinic fuels targets 	framework for environmental protection and management.
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.	<p>Food Wise 2025 identifies ambitious and challenging growth projections for the industry over the next ten years including:</p> <ul style="list-style-type: none"> • 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.
National Policy Framework For Alternative Fuels Infrastructure for Transport in Ireland 2017 to 2030	<ul style="list-style-type: none"> • 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. • 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. 	<p>This policy set out to achieve five key goals in transport:</p> <ul style="list-style-type: none"> • Reduce overall travel demand • Maximise the efficiency of the transport network • Reduce reliance on fossil fuels • Reduce transport emissions • Improve accessibility to transport <p>These goals remain the cornerstone of transport policy and are fully aligned to the objectives of this National Policy Framework.</p>	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
<p>National Coastal Change Management Strategy</p>	<p>The Government has adopted a policy to assess and manage coastal flood risk with regard to both existing risk and the potential impacts of climate change.</p> <p>This strategy will:</p> <ul style="list-style-type: none"> • Provide a framework to determine the key decisions to be taken on how Ireland could best manage its coast, being aware of the future risks and the associated planning requirements. • Provide a framework to best inform both where and how decisions regarding appropriate development / projects along the coast should be taken in the future, in coordination with investment in flood risk management. 	<p>Recommendations:</p> <ul style="list-style-type: none"> • Enhancing governance and capacity building (a dual approach of both mitigation and adaptation measures) • Understanding the risk and identifying potential risk management options <p>Developing management (a dual approach of both mitigation (tackling the cause) and adaptation measures) to coastal change</p>	<p>Implementation of the 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.</p>
<p>Climate Change Sectoral Adaptation Plan for Built and Archaeological Heritage (2019)</p>	<ul style="list-style-type: none"> • Heritage in Ireland ranges from private homes, commercial and public buildings, national monuments, underwater and buried archaeology and the physical and cultural settings of all of these. • This plan considers not only those structures and sites that have been statutorily listed, but all man-made assets that have historical, aesthetic and cultural value, but does not consider natural heritage. 	<p>The five adaptation goals for built and archaeological heritage in Ireland are:</p> <ol style="list-style-type: none"> 1. To improve understanding of each heritage resource and its vulnerability to climate change 2. To develop and mainstream sustainable policies and plans for climate-change adaptation of built and archaeological heritage 3. To conserve Ireland’s heritage for future generations 4. To communicate and transfer knowledge <p>To exploit the opportunities for built and archaeological heritage to demonstrate value and secure resources</p>	<p>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.</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
	<p>Aims to:</p> <ul style="list-style-type: none"> • Build adaptive capacity within the sector • Reduce the vulnerability of built and archaeological heritage to climate change • Identify and capitalise on the various potential opportunities for the sector 		
<p>Heritage related legislation:</p> <ul style="list-style-type: none"> • National Monuments Act 1930 as amended; • Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999; and • The Heritage Act 2018. 	<ul style="list-style-type: none"> • Irish Heritage regulations that are relevant to the LACAPs. Broadly, this legislation is designed to conserve and enhance heritage. 	<p>Irish Heritage regulations that are relevant to the LACAPs. Broadly, this legislation is designed to conserve and enhance heritage.</p>	<p>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.</p>
<p>Regional/ County/Local Level</p>			
<p>Regional Economic and Spatial Strategies</p>	<p>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.</p>	<p>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;</p>	<p>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</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
		<p>Longford County Council; Laois County Council; Offaly County Council; and Westmeath County Council.</p> <p>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.</p> <p>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.</p>	<p>framework for environmental protection and management.</p>
<p>NPWS Conservation Plans and/or Conservation Objectives for SACs and SPAs</p>	<p>Management planning for nature conservation sites has a number of aims. These include:</p> <ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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. 	<p>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.</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
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.
Limerick Development Plan 2022-2028, and Local Area Plans (Abbeyfeale, Adare, Askeaton, Caherconlish, Castleconnell, Croom, Killmallock, Newcastle West, Patrickwell, Rathkeale)	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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.
County Landscape Character Assessments	Characterises the geographical dimension of the landscape.	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> Identifies the current status of the species and the reason for loss or decline. Identifies measure required to improve or restore current status. 	<ul style="list-style-type: none"> 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.
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.	<ul style="list-style-type: none"> 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.
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.
Limerick City Council Biodiversity Plan	<ul style="list-style-type: none"> Overall aim is “to maintain, protect and enhance the biodiversity of Limerick City for future generations and to educate and promote the importance of Limerick City’s biodiversity for all” 	<p>The main objectives of the Plan are:</p> <ul style="list-style-type: none"> Reduce the use of chemical pesticides and herbicides to a practicable minimum in green areas and open spaces. 	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

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
		<ul style="list-style-type: none"> • Reduce the use of chemical fertilizers to a practicable minimum. • Introduce indigenous planting schemes in parks and open spaces. • Prioritizing species which provide foods for a variety of mammals, birds and insects. • Introduce a seed saving programme for indigenous planting schemes within the City. • Introduce grass cutting regimes that enhance local biodiversity e.g. infrequently mow along edges connecting to shrubs. • Develop an awareness campaign to prevent the dumping of general and garden waste. • Recognise that even in areas with existing low maintenance regimes that some intervention may be required to maintain and enhance the biodiversity of the area. • Create additional wildflower meadows in appropriate locations 	and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection.
Limerick Local Economic and Community Plan 2023-2028	<p>The Limerick Local Economic and Community Plan (LECP) is a 6-year plan for local economic development and local community development across Limerick. It is about working to achieve the sustainable development of communities in Limerick.</p>	<p>The document presents a Socio-Economic Statement for the LECP for Limerick. This sets out:</p> <ul style="list-style-type: none"> • Statistical and other information on the social and economic profile of Limerick. • High-Level Goals of the Plan and a Vision Statement of what we want to achieve for Limerick. • Sustainable Economic Development Objectives. • Sustainable Community Development Objectives. • Sustainable Integrated Objectives – which bring together both economic and community objectives. 	<p>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.</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
		The statement of objectives includes examples of types of action that could be taken and asks questions about what the priorities could be.	
Limerick Heritage Plan 2017-2030	Purpose of the Plan is to ensure that the Local Authority and the wider community focus on the need to ensure that Limerick's heritage continues to be unique and diverse, while being accessible to all.	<p>The main aims include:</p> <ul style="list-style-type: none"> • To raise the awareness of appreciation for and enjoyment of Limerick City and County's heritage. • To acquire knowledge through survey and research on heritage in Limerick City and County and to make it available to the wider public in a user-friendly manner. • To promote best practice and encourage heritage conservation and management. • To support the local economy and strengthen tourism. 	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.
Limerick Shannon Metropolitan Area Transport Strategy 2040	This Strategy sets out the framework for the delivery of the transport system required to further the development of the Limerick Shannon Metropolitan Area as a hub of cultural and social development and regeneration; as the economic core for the Mid-West; as an environmentally sustainable and unified metropolitan unit; as a place where people of all ages can travel conveniently and safely; and a place that attracts people, jobs and activity from all over Ireland and beyond.	<p>The Strategic Transport Objectives of the LSMATS are as follows:</p> <ol style="list-style-type: none"> 1. To prioritise investment in sustainable transport in order to reduce the reliance on the private car; 2. To provide a high level of public transport connectivity to key destinations; 3. To facilitate higher density housing a part of Transit-Oriented Developments at key points of high public transport accessibility; 4. To deliver a fully accessible and inclusive transport system; 5. To identify and protect key strategic routes for the movement of freight traffic and to improve access to Shannon-Foynes Port and Shannon Airport; 6. To improve road safety, public health and personal security; 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.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
		7. To minimise the impact of motorised traffic in urban centres.	
Flood Relief Scheme for Limerick City & Environs	The objective of the scheme is to alleviate the risk of flooding to the Community of Limerick City and environs by providing a scheme that is technically, socially, environmentally and economically acceptable.	The development of the Public Realm is a major component of the Flood Relief Scheme. Where feasible, greenways and pedestrian/cycle routes will be developed in conjunction with the flood defence and where appropriate, nature-based solutions and green infrastructure will be incorporated into the scheme.	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.
Limerick City and Environs Green and Blue Infrastructure Strategy	The Limerick Development Plan (LDP) has established an ambitious and collective vision for Limerick in its transition to a carbon neutral society, with the aim to become “a Green City Region on the Shannon Estuary connected through people and places”. This Strategy is key for delivering on this Vision.	The Strategy identifies GBI Priority Actions, underpinned by the Strategic Vision and Key Ambitions outlined within the LDP. These aim to deliver a host of multi-functional benefits and improvements to the GBI network. These are as follows: <ol style="list-style-type: none"> 1. Embed GBI in the implementation of Public and Private Projects. 2. Enhance existing open space provision within the Strategy Area. 3. Create new formal parks and natural & semi-natural parks to improve accessibility for a growing population. 4. Protect, value and enhance amenity green space by applying an appropriate management approach. 5. Enhance, protect and develop the network of blueways. 6. Integrate GBI in the delivery of the network of active travel routes. 7. Enhance recreational access to the River Shannon and tributaries. 	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.

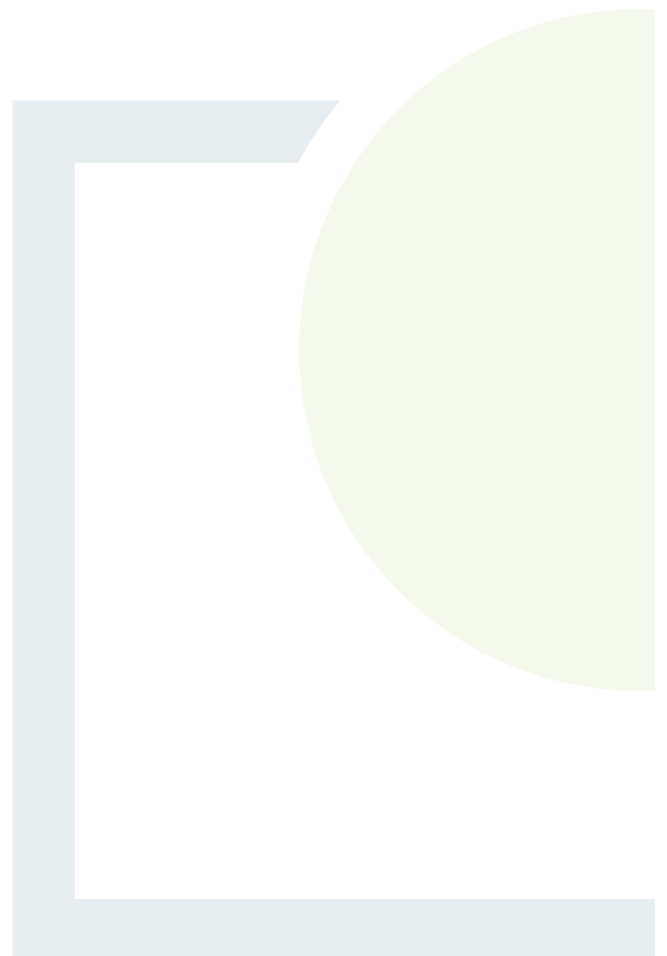
Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
		<p>8. Develop Tree and Biodiversity Strategies for the Strategy Area.</p> <p>9. Promote community engagement and raise public awareness in the development of GBI.</p> <p>10. Incorporate smart mechanisms of connecting GBI initiatives with the public.</p>	
<p>Limerick Noise Action Plan 2018 - 2023</p>	<p>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.</p>	<p>The main purpose of the Noise Action Plan is to:</p> <ul style="list-style-type: none"> • 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 <p>Reduce noise, where possible, and maintain the environmental acoustic quality where it is good</p>	<p>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.</p>
<p>Limerick Metropolitan Cycle Network Study</p>	<p>The purpose of this document is to promote the expansion of cycling and pedestrian infrastructure in Limerick.</p>	<p>The purpose of this document is to promote the expansion of cycling and pedestrian infrastructure in Limerick. A cycling network totalling 184km is proposed for the metropolitan areas, of which 103km will be cycle tracks and greenways that are fully segregated from traffic.</p>	<p>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.</p>



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APPENDIX 2

Summary of Consultation
Feedback





FAO : Climate Action Coordinator

Submission in response to the SEA Scoping report on County Council Climate Action Plan

Ireland's seafood industry (fishing and aquaculture) is one of the key stakeholders operating in the marine area and plays a vital role in the sustainability of our coastal communities. Over 15,000 people are employed around our coast both directly and indirectly. Many of these communities have very limited alternative employment and economic activity options. It is therefore essential that the socio-economic reliance on the seafood sector is fully recognised and is factored into any Climate Change Action plan. Fishing and food security is as key a part of Government Policy. Food Vision 2030 recognises and values the role of primary food producers.

The Seafood industry is experiencing a period of difficult change, arising from the ongoing consequences of the EU UK Trade and Co-operation agreement which are specific and impactful on Ireland's seafood sector. There is now ever-increasing demand on the marine space from Offshore Renewable Energy (ORE), Marine Spatial Planning, Marine Protected Areas (MPAs), and other environmental measures.

Our coastal communities and maritime sectors will continue to play a significant role in contributing to our climate goals and will continue to be consulted and supported in the transition to carbon neutrality. The seafood industry, through both the Sectoral Adaptation Plan ([Agriculture, Forest and Seafood Climate Change Sectoral Adaptation Plan](#)) and the annual Climate Action Plan ([CAP23](#)) continue to support initiatives to improve understanding of our marine area and ensure sustainable resource use, including through bio and circular economy initiatives. These plans require consideration in the SEA process.

Also for consideration in the SEA process is the European Commission's Communication on the energy transition of the fisheries and aquaculture sector as part of its Fisheries Policy Package. This proposes the establishment of an Energy Transition Partnership (ETP) to develop a roadmap for the energy transition of the sector towards climate neutrality by 2050. The roadmap will set out investment needs, sector initiatives and inform policy decisions to help achieve this transition. The ETP is a multi-

Department of Agriculture, Food and the Marine

Government Buildings, National Seafood Centre, Clonakilty, Co Cork, P85 TX47



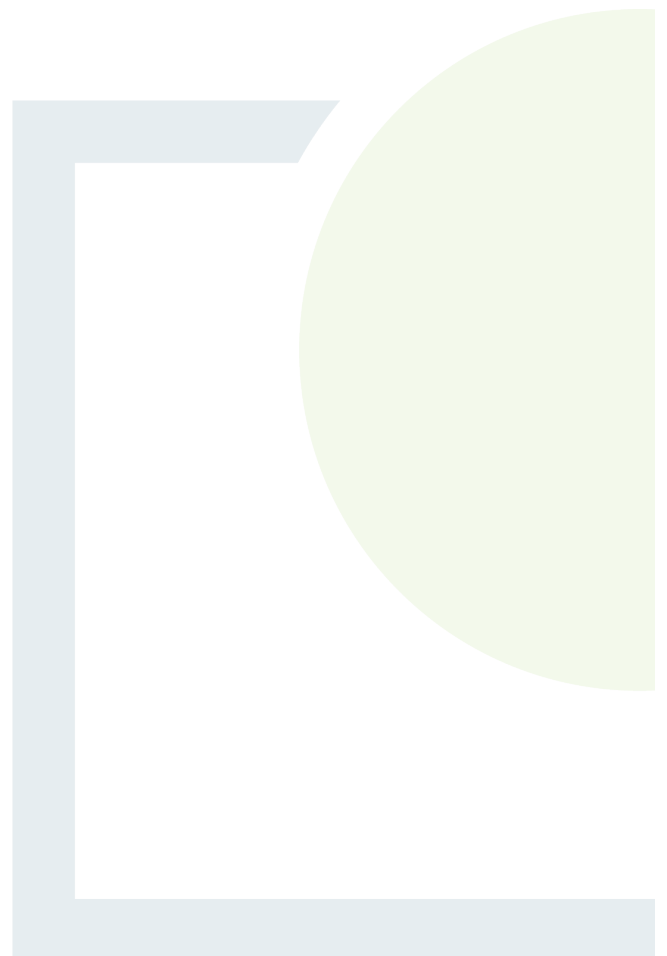
stakeholder platform intended to promote co-operation, knowledge sharing and dialogue between private and public stakeholders in order to accelerate the energy transition in the fisheries and aquaculture sector. This Partnership will help to shape the development of future transitional actions for Ireland's seafood sector. Local authorities should include relevant steps to support a Just Transition for the sea fisheries and aquaculture sectors in their Climate Action Plans.



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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 '+').⁷⁴
- Potential Negative Environmental Impact (indicated in the matrix by a '-').⁷⁵
- 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, cumulative⁷⁶, synergistic⁷⁷, 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.

⁷⁴ Potential Positive Environmental Impacts are defined as having the potential to support the achievement of an SEO.

⁷⁵ Potential Negative Environmental Impacts are defined as having the potential to hinder the achievement of an SEO.

⁷⁶ The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects.

⁷⁷ 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 County.
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. ⁷⁸
	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.

⁷⁸ '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 county 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

Travel and Mobility

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
T1	Increase the use of public transport through the implementation of the bus connects programme	<p>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.</p> <p>Infrastructural development that may be 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.</p>	+	0	0	0	0	0	+	0	0	0	+
T2	Develop and implement a park and ride strategy.	<p>This action supports active travel and modal shift.</p> <p>In the absence of any mitigation, works involved in the construction of additional active travel infrastructure (in this instance, Park and Ride 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).</p> <p>The ongoing operation of an active travel and enhanced public transport network may have a slight to significant effect on traffic flows associated with other modes of transport, in absence of proper design of such networks the outset and additional mitigation as may be required.</p> <p>The delivery of an expanded safe active travel and public transport 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.</p>	+	-	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 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 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.											
T3	Examine the feasibility of the provision of new greenways either within disused rail lines or immediately adjacent to existing or proposed rail corridors	<p>These actions support the development of additional green infrastructure.</p> <p>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).</p>	+	+/-	+	0	+/-	+	+/-	+/-	+	+	+
T4	Implement the Active travel programme in particular the Limerick Metropolitan Cycle Network Study	<p>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.</p> <p>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 and support the reduction of vehicle related emissions.</p> <p>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.</p> <p>The delivery of such green infrastructure has the potential to generate very significant positive tourism, recreation and cultural heritage related benefits/effects.</p>	+	+/-	+	0	+/-	+	+/-	+/-	+	+	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
T5	Deliver a network of secure, public bicycle and powered personal transportation parking, to accommodate a variety of bike types across the County, including at schools, parks, playgrounds, towns, and villages.	<p>This action has the potential to encourage modal shift within the community and the use of active travel modes and networks. It will help fully realise the potential positive environmental effects associated with sustainable/active travel - including air quality impacts and population and human health.</p> <p>This action supports the development of additional cycling infrastructure.</p> <p>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), biodiversity impacts, cultural heritage asset impacts and impacts on traffic and transport (through the temporary creation of traffic diversions and congestion).</p> <p>The ongoing operation of cycling infrastructure may have a slight to significant effect on traffic flows associated with other modes of transport, in the absence of proper design of such networks at the outset and additional mitigation as may be required.</p>	+	-	0	-	0	0	+	-	+/-	0	0
T6	Continue to promote active travel, for a wide range of ages, abilities and journey types, utilising LCCC's active travel website, social media and events.	This action supports behavioural change and may result in an increased uptake of active travel within the community. The act of promoting alone will have no discernible environmental impact but it is acknowledged that this action supports the aims and objectives of the actions contained within this Climate Action Plan.	0	0	0	0	0	0	0	0	0	0	0
T7	Prepare an EV charging strategy to support city / town centre charging as well as destination charging locations	The introduction of a public electric vehicle charging network will lead to the development of multiple charging points and ancillary electrical infrastructure including grid connection routes across the extent of the local authority's functional area.	0	-	0	-	-	0	-	-	+	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
		<p>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.</p> <p>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.</p>											
T8	Prepare a freight strategy to support last mile logistics	This action has the potential to reduce GHG emissions associated with transport of goods from the Limerick Docklands. This may result in some degree of GHG emissions reductions and is likely to result in a positive environmental effect generally.	0	0	0	0	0	0	0	0	0	0	+
T9	Implement an Annual Gully Cleaning Scheme (AGCS).	This action will promote good flood risk management and flood risk reduction. Proper gully maintenance will generate a positive effect for environmental receptors that are at risk of being negatively impacted by flood events - by reducing the risk of such flood events. Discharges of debris and detritus associated with gully	+	+	0	+	+	0	0	+	0	0	+
T10	Implement a bridge rehabilitation programme that is resilient to the impacts of Climate change	<p>This action has the potential to adversely affect Annex II and IV species such as Daubenton's Bat through disturbance and habitat loss or impact protected structures if incorrectly implemented.</p> <p>Such work also has the potential to negatively impact the status of bridges/infrastructures that constitute protected structures or that have cultural heritage value attached to them.</p>	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
T11	Carry out maintenance and rehabilitation of regional and local roads in accordance with the guidance document on the climate adaptation of regional and local roads	<p>This action will promote the protection of road assets from climate change risks - such as a climate change influenced flooding or erosion.</p> <p>This action will likely to lead to retrofitting and upgrading of existing roads.</p> <p>In the absence of any mitigation, works involved in the retrofitting of the existing road network have the potential to generate a range of slight to significant environmental effects, including 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.</p>	0	0	0	0	0	0	-	-	0	0	0
T12	In road construction projects, minimise the use of virgin materials and promote the use of reclaimed asphalt pavement (RAP) or low carbon alternatives	<p>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.</p> <p>The inappropriate management/reuse of waste, such as road construction waste may lead to negative environmental effects, such as effects on air, water or soil quality.</p>	0	0	0	0	-	0	-	-	0	0	+
T13	Prepare inventory of Local Authority fleet, including leased vehicles and status of same	Preparing an inventory will have no environmental effect when considered in isolation.	0	0	0	0	0	0	0	0	0	0	0
T14	Assess individual vehicles of the Class (GVW) available in EV format. Ascertain the minimum annual KM to be of benefit as a change from ICE (Internal Combustion Engine) to EV. Agree a fleet replacement plan to comply with SI-381-2021	<p>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 to significant positive environmental effect in terms of fuel efficiency improvements in the local authority vehicle fleet which will reduce/minimise vehicle fleet-related GHG emissions. This has the potential to generate some degree of positive effects on climate and local air quality.</p> <p>This action will lead to the LA transitioning its vehicle fleet to electric vehicles. Electric vehicles have the potential to generate a variety of uncertain lifecycle impacts, including production-related impacts and end-of-life related.</p>	0	?	0	0	?	?	+	0	?	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
T15	For the vehicles that will not migrate to EV, assess EURO Stage emissions and look at replacements with newer improved emission levels. Alternatively switch from DERV to HVO (Hydrotreated Vegetable Oil) proposed test at Park Rd depot before rolling out to main depots	<p>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 to significant positive environmental effect in terms of fuel efficiency improvements in the local authority vehicle fleet which will reduce/minimise vehicle fleet-related GHG emissions. This has the potential to generate some degree of positive effects on climate and local air quality.</p> <p>The scalable adoption of vehicles based on certain alternative fuels may contribute to the expansion of alternative fuel production sectors. These sectors may indirectly cause environmental effects (including uncertain and potentially negative effects) as a result of fuel sourcing, production and supply processes.</p>	0	0	0	0	0	0	0	0	0	0	+
T16	Assess depots etc for suitability for EV charging and parking to include potential for solar generation to support charging.	<p>Delivering such a report will have no real environmental effect when considered in isolation. This action may lead to the development of renewable energy and EV charging infrastructure. This supports the local authority in reducing its transport sector 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.</p> <p>This action could also lead to the delivery of multiple charging points and ancillary electrical infrastructure including grid connection routes across the extent of the LA. 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 material asset impacts, 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 installation of PV panels has the potential to result in negative glint and glare impacts on sensitive environmental receptors. Therefore there is also scope for there to be negative effects on cultural heritage if unmitigated.</p>	0	-	0	-	-	0	-	-	+	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
T17	Assess of non-vehicle ICE usage with the organisation, Con Saws, Leaf Blowers, etc to establish what can be migrated to chargeable options.	The assembly of an inventory will have no real environmental effect when considered in isolation. This action may lead to the replacement of non-vehicle ICE-based tools within the Local Authority which may result in some degree of GHG emissions reductions.	0	0	0	0	0	0	0	0	0	0	+/-
T18	Assess & record ICE vehicle idling and implement training programme to increase awareness and reduce occurrence.	This action is likely to lead to a slight degree of GHG emissions reductions within the Local Authority.	0	0	0	0	0	0	0	0	0	0	+
T19	Examine the viability of establishing an EV pool to include optimum locations. Establish charging locations and booking platform.	This action may lead to some degree of GHG emissions reductions associated with the use of ICE-based vehicles for LA travel and transport.	0	0	0	0	0	0	0	0	0	0	+
T20	Appoint a dedicated Walking and Cycling Officer within the Local Authority	The appointment of an officer will have no real environmental effect when considered in isolation.	0	0	0	0	0	0	0	0	0	0	0
T21	Implement a smarter travel workplace plan for corporate buildings	This action supports behavioural change and may result in an increased uptake of sustainable transport options associated with daily commuting at corporate buildings. This may lead to slight-to-moderate reductions in GHG emissions within the community.	0	0	0	0	0	0	+	0	0	0	+

Key: PHH - Population & Human Health. BFF - Biodiversity, Flora & Fauna. L - Landscape, Seascape & Visual Amenities. 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
B1	Implement the LCCC County Development Plan 2023	This action has the capacity to result in positive environmental effects, depending on the degree to which the targets set out in the CDP are implemented.	+	+	+	+	+	+	+	+	+	+	+
B2	Prepare a renewable energy strategy for Limerick incorporating all forms of renewable energy including integrated renewables that will guide the development of new energy infrastructure in the county	<p>This action has the potential to support the delivery of renewable energy infrastructure and sectoral GHG emission reductions.</p> <p>The supporting of such developments could result a variety of slight to significant negative environmental effects, including landscape and visual impacts and negative impacts on sensitive habitats and species, including European sites - thus further consideration and mitigation measures are required.</p>	0	-	0	0	-	0	-	-	+	0	+
B3	Implement the Catchment Flood Risk Management (CFRAM) programme across Limerick following the OPW Plans (2016) for Athea, Adare, Askeaton, Croom, Foynes, Newcastlewest, Rathkeale, Castleconnell and Limerick City and Environs	<p>This flood resilience related action has the potential to lead to significant development taking place including development at and in the vicinity of water bodies.</p> <p>In the absence of any mitigation, such development could potentially have a variety of significant, negative environmental effects, 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 environment (due to the generation of construction dust).</p> <p>Flood resilience action has the potential to have positive environmental effects also. The possible development of nature based solutions and SUDS as part of surface water management has the potential to have slight to significant, positive effects on biodiversity and water quality at or downstream of a particular water body.</p>	+	+/-	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
B4	To support communities to be make the transition to EV it is necessary to set out a strategy for the development of a public charging network across the county that is based on site suitability, grid capacity and demand. The strategy will identify both on street and off-street options including the provision of eMaaS hubs.	<p>This action may lead to the development of renewable energy and EV charging infrastructure across the County. This supports the reduction of transport sector 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.</p> <p>This action could also lead to the delivery of multiple charging points and ancillary electrical infrastructure including grid connection routes across the extent of the LA. 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 material asset impacts, 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 installation of PV panels has the potential to result in negative glint and glare impacts on sensitive environmental receptors. Therefore there is also scope for there to be negative effects on cultural heritage if unmitigated.</p>	0	-	0	-	-	0	-	-	+	0	+
B5	Carry out a feasibility study on the introduction of a district heating network in Limerick City	Carrying out a feasibility study will have no real environmental effect when considered in isolation.	0	0	0	0	0	0	0	0	0	0	0
B6	Investigate the establishment of a sustainable investment fund to support the retrofitting of historic buildings across Limerick	Compiling a report will have no real environmental effect when considered in isolation. It is acknowledged that this is a necessary step towards the achievement of Action 87.	0	0	0	0	0	0	0	0	0	0	0
B7	Support owners of historic building to carry out appropriate retrofitting initiatives by developing guidance and supports	<p>This action will work to protect existing infrastructure against potential harm caused by climate change.</p> <p>In the absence of appropriate mitigation, such 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.</p>	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
B8	Partner with the Chamber of Commerce to encourage businesses to carry out energy efficiency upgrade works to their premises and to reduce their carbon emissions	<p>This action will support local businesses in reducing their GHG emissions in line with climate policy and legislation and emission reduction targets. The action is likely to have a 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.</p> <p>Upgrade or retrofitting works associated with this action may result in the generation of localized environmental effects, including dust and noise impacts. Such works may also impinge on the status of protected structures.</p>	0	-	0	-	0	0	-	-	0	0	+
B9	Implement the Blue Green Infrastructure strategy for Limerick City and Environs whose aim is to inform and guide the planning and management of green and blue spaces in Limerick City and Environs, including our rivers, parks and open green spaces, helping drive the transition to a low carbon and climate resilient society.	<p>This action supports the development of additional green and blue infrastructure.</p> <p>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).</p> <p>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.</p> <p>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 and support the reduction of vehicle related emissions.</p>	+	+/-	0	0	0	0	+/-	+/-	+	+	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
		<p>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.</p> <p>The delivery of such green infrastructure has the potential to generate very significant positive tourism, recreation and cultural heritage related benefits/effects.</p>											
B10	<p>Implement the LSMATS Strategy was prepared by the NTA in collaboration with Limerick City and County Council. The strategy aims to deliver a transport system for the region, which will enable it to become an environmentally sustainable and unified metropolitan unit.</p>	<p>The delivery of an expanded, safe public transport network has the potential to promote the use of sustainable 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.</p> <p>In the absence of any mitigation, works involved in the construction of public transport infrastructure have the potential to generate a range of slight to profound significant environmental effects (depending the scale, extent and character of the development), 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.</p>	+	+/-	0	0	-	0	+/-	+/-	0	+	+
B11	<p>Support the implementation of the Shannon Estuary Taskforce Plan sets out recommendations for the delivery of up to 30GW of Atlantic Offshore Wind through the Estuary by 2050, and measures to maximise the industrial development opportunities arising from this.</p>	<p>This is an action that serves to support the carrying out of development and maintenance of offshore renewable energy projects. This action can potentially indirectly lead to positive climate effects whilst positively affecting air quality and material assets.</p> <p>The supporting of such developments could however result in a variety of slight to very significant negative environmental effects, including landscape and visual impacts and impacts on important habitats and species (due to collision risk and vibration effects), including</p>	0	-	-	0	0	+	+/-	0	+	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
		European sites - thus further consideration and mitigation measures are required.											
B12	Carryout an energy audit of identify the scale of investments required to meet the required carbon reductions	Carrying out audits will have no real environmental effect when considered in isolation. it is acknowledged that this is a necessary step that supports the reduction of GHG emissions within the County.	0	0	0	0	0	0	0	0	0	0	+
B13	Set out a roadmap to Decarbonise the councils building stock buildings through: A. Connection to District Heating B. Use of Heat Pumps & associated fabric improvements C. Use of other non-fossil fuels (eg Woodchip, Bio LPG)	Setting out a roadmap will have no real environmental effect when considered in isolation. it is acknowledged that this is a necessary step that supports the reduction of GHG emissions within the County.	0	0	0	0	0	0	0	0	0	0	+
B14	All buildings leased or bought by LCCC shall have an energy rating of A3 of better, as per SI 426 of 2014	This action will support the LA in its reduction of its organisational 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.	0	-	0	0	0	0	-	-	0	0	+
B15	Carry out an assessment of the renewable energy potential across the council's property portfolio to include buildings and land. Should include the potential to support EV roll out as well as local REC formation.	Carrying out a feasibility study will have no real environmental effect when considered in isolation. This action broadly supports the aims and objectives of the actions contained within this Climate Action Plan.	0	0	0	0	0	0	0	0	0	0	0
B16	Install maximum solar PV on appropriate LCCC owned corporate building.	This action may lead to the development of renewable energy infrastructure. This supports a reduction in the County's 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. The installation of PV panels has the potential to result in negative glint and glare impacts on sensitive environmental receptors. Therefore there is also scope for there to be negative effects on cultural heritage if unmitigated.	0	-	0	-	-	0	-	-	+	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
B17	Start retrofitting Council owned social housing to reduce carbon emissions as well as addressing fuel poverty	This action will support the LA in its reduction of its organisational 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 light and air pollution during retrofitting works. Retrofitting works may also negative effect 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	+
B18	Make applications to Pathfinder. Pathfinder is a programme operated by SEAI. It provides finance to achieve substantial energy savings by bundling similar large-scale projects. scale projects together. It is operated by SEAI.	This action is generally supportive of energy and retrofit projects and may contribute toward achieving GHG emission reductions if successfully implemented. Such energy or retrofit projects may generate light and air pollution and may negatively impact sensitive environmental receptors and the conservation of protected structures, in the absence of appropriate mitigation.	-	-	0	-	0	+	-	-	+	0	+
B19	Complete a building Register of all buildings and classify them	The completion of a building register will have no real environmental effect when considered in isolation.	0	0	0	0	0	0	0	0	0	0	0

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Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
G 16	Establish a Steering Group with representatives of key stakeholder groups to oversee plan implementation.	implementation of the actions contained within this plan.	0	0	0	0	0	0	0	0	0	0	0
G 17	Adopt and implement the Green Public Procurement Strategy	The effective promotion and expanded adoption of green public procurement processes has the potential to increase the frequency at which the local authority sources goods and service that have a reduced environmental impact. The successful and effective promotion of green public procurement has the potential to generate some degree of positive environmental effects generally.	0	0	0	0	0	0	0	0	0	0	+

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Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
C7	Complete the SMARTLABs SEAI supported project which supports up to 100 residents / property owners better understand their energy usage and promotes behavioural change to reduce overall energy consumption.	This action supports behavioural change related to energy usage. This may result in some degree of GHG emissions lowering from the residential sector, thereby benefitting climate action.	0	0	0	0	0	0	0	0	0	0	+
C8	Develop Group-based programmes and activities to build social and environmental inclusion	This awareness-related action will underpin and promote climate action within the community.	0	0	0	0	0	0	0	0	0	0	+
C9	Utilise the facilities of the CIL and other programmes to encourage communities to form SECs	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	+
C10	Create a Community SDG Dashboard for tracking community climate programs in limerick city and county	This action will have no real environmental effect in and of itself. It is acknowledged that this action supports the objectives of the actions contained within this plan and supports community engagement therein.	0	0	0	0	0	0	0	0	0	0	0
C11	Continue to deliver on the Community Climate Action Fund	The promotion of community climate action projects has the potential 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	+
C12	Deliver Engagement programmes regarding funding opportunities and local development	This promotional/engagement action will support the effective delivery of climate action in the community. The adoption of this action will support the full realisation of the plan vision in the community.	0	-	-	0	0	+	-	-	+	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
		The carrying out of any upgrades or small-scale renewable energy development which may be 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.											
C13	Utilise the Creative Climate Action Communities as a driver of community climate action	This promotional action will support the effective delivery of climate action in the community. 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	+
C14	Partner with community groups/organisations/academic institutes (green schools) in designing amenities and services for them and involve them in the decision-making	This promotional action will support the effective delivery of climate action in the community. 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	+

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Natural Environment

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
N1	A local Biodiversity Action Plan will set out measures to protect and enhance local biodiversity, including climate-relevant measures. Implement relevant actions of the national Bio-diversity Action Plan at local level	This action will support the protection and enhancement of biodiversity within the County. This has the capacity to have positive effects on biodiversity, human health, landscape/visual amenities, soil, land use, air quality, water quality, tourism/recreation, and climate change.	+	+	+	0	+	+	+	+	0	+	+
N2	Set targets to maintain existing woodlands in good condition and plant new native trees in urban and rural areas, subject to independent ecological assessment, to enhance carbon storage, biodiversity and landscape, air quality, and urban heat island mitigation.	This action supports biodiversity enhancement and protection, as well as carbon sequestration, having positive effects on climate change, air quality, water quality, land use, landscape and visual amenities, tourism/recreation, biodiversity, and human health.	+	+	+	0	+	+	+	+	0	+	+
N3	A wetland survey will inform council strategy and planning documents and implement recommendations in terms of conservation and restoration of wetlands.	<p>This action broadly supports the reduction of County 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 the reduction of GHG emissions and the protection of biodiversity.</p> <p>This action has the potential to generate slight to significant positive effects on biodiversity, water quality, soil health, carbon sequestration, and landscape/visual amenities.</p> <p>Restoration works, if carried out improperly, could potentially impact or impinge on important habitat or species present at wetlands, resulting in slight to significant environmental impacts. Such works could potentially impact on water quality also.</p>	0	+/-	+	0	+	+	+	+/-	0	0	+
N4	Develop a Local Food Growing Strategy and expand the number of community growing projects and support them with skills training, materials and capacity building.	This action supports community engagement in food production. This promotional/educational action has the capacity to benefit biodiversity, landscape, human health, and climate action.	+	+	+	0	0	+	+	0	0	0	+

Action Ref.	Draft LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
N5	Support the implementation of Marine Spatial Plan and to protect the Shannon estuary	This action supports the Marine Spatial Plan and the projects included therein. This action has the capacity to positive lead to water quality, biodiversity, and climate change benefits.	+	+	0	0	0	0	0	+	0	+	+
N6	Deliver a habitat protection and creation of new habitats, landscapes, hedgerows strategy.	This action will support the protection and enhancement of biodiversity within the County. This has the capacity to have positive effects on biodiversity, human health, landscape/visual amenities, soil, land use, air quality, water quality, tourism/recreation, and climate change.	+	+	+	0	+	+	+	+	0	+	+
N7	Implement a policy to cease the use of chemical pesticides and herbicides across council operations	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
N8	Carry out ecological/habitat survey and highlight areas at risk and those suitable for ecological restoration and, where appropriate, enhanced carbon storage	Carrying out a survey will have no discernible environmental effect in and of itself. This action supports ecological restoration and may lead to further action that could benefit biodiversity, landscape/visual amenity, soils, air quality, water quality, tourism/recreation, and climate change.	0	+/-	+	0	+	+	+	+/-	0	0	+
N9	Create and maintain pollinator-friendly habitats based on most up to date scientific advice from AIPP.	This action will support the protection and enhancement of biodiversity within the County. This has the capacity to have positive effects on biodiversity, human health, landscape/visual amenities, soil, land use, air quality, water quality, tourism/recreation, and climate change.	+	+	+	0	+	+	+	+	0	+	+
N10	Work with Irish Water and LAWPRO (Local Authority Water Programme) to identify the impacts of critical and vulnerable receptors in accordance with the River Basin Management Plan and Water Framework Directive	This action supports continued compliance with the Water Framework Directive. This action will improve water quality, biodiversity, human health, and tourism/recreation.	+	+	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
N18	Enable improvements in air quality through inspections of fuel suppliers to address unauthorised sale of unapproved solid fuels	This supports improvements to local air quality and may result in some degree of GHG emissions reductions as solid fuels are removed from circulation.	0	0	0	0	0	0	+	0	0	0	+

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FT Ref	Opportunity	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
	including public realm/Section 38 and Active Travel initiatives												
E6	Promote efficient water use by businesses and the wider community and create a business case for rainwater capture	REPEAT OF ACTION N12											
E7	Explore initiatives to significantly reduce the quantity of single-use plastics used in LCCC premises and wider commercial establishments.	This action may lead to reductions in plastic waste generation and promote resource efficiency. 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	+
E8	Promote waste minimisation and sustainability into the event licencing and casual trading processes	This action will support behavioural change and awareness aimed at traders and events. It has the potential to have a slight positive effect in terms of climate action and environmental health.	0	0	0	0	0	0	0	0	0	0	+
E9	The development of the Opera Site by Limerick 2030 DAC will undertake a number of initiatives to demonstrate best practice in minimisation of waste.	This action promotes effective management of construction materials and promotes material circularity in construction. Using this development as a benchmark in the industry broadly supports the reduction of lifecycle GHG emissions associated with the production of materials and goods.	0	0	0	0	0	0	0	0	0	0	+
E10	Introduce a programme of actively managing waste in all LCCC buildings	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	+
E11	Prepare an updated noise action plan	This action supports noise reduction in the County.	0	0	0	0	0	0	+	0	0	0	0

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Decarbonising Zone

Description	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
Historic building retrofit programme: Support the retrofitting of historic buildings through the development of new business models including the establishment of a sustainable investment fund	<p>This action has the potential to have significant positive effects on cultural heritage and architectural assets and the amenity value attained by people from these assets.</p> <p>This action has the potential to support carrying out retrofitting/upgrade works at historic structures and traditional buildings which could result in significant negative effects if unmitigated.</p> <p>This action has the potential to have adverse effects on Bats which are Annex IV species, as many roosts are located within old unused buildings.</p>	0	-	+/-	+/-	0	0	0	0	0	0	+
BMS Systems for Gallery: Building and energy management systems for council buildings including social housing.	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.	0	-	+/-	+/-	0	0	0	0	0	0	+
District Heating: Idea - Combined waste heat from local sources. Feasibility study required	Conducting a feasibility study is likely to have no environmental effect in and of itself but will provide essential information underpinning the potential development of district heating for Limerick which may result in lowering GHG emissions in the city.	+	-	0	0	-	0	+/-	-	+	0	+
District Heating at Colbert Station: In conjunction with LDA development of the Colbert Quarter support the development of district heating on a community scale.	This action will support the development of new projects aimed at regenerative action with energy efficiency at the core. The adoption of this action can potentially result in reduced energy consumption in new buildings 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	+/-

Description	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
Freight management delivery and service strategy: This is a recommendation in LSMATS. The removal of heavy goods vehicles from the city centre would greatly improve air quality in the city centre	This action may lead to increased air quality in the DZ. Due regard should be given to the fact that it may result in increased instances of lighter goods vehicles which may negate the effort to reduce traffic volumes in the city and improve air quality.	0	0	0	0	0	0	+/-	0	0	0	+/-
Behavioural Change/Active Travel/Travel planning for workplaces and schools: Active travel are continuing to develop and implement a range of initiatives in the areas of safe school, and cycling networks that connect the city	<p>This action supports the development of additional active travel infrastructure.</p> <p>In the absence of any mitigation, works involved in the construction of additional active travel 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).</p> <p>The ongoing operation of active networks may have a slight to significant effect on traffic flows associated with other modes of transport, in absence of proper design of such networks at the outset and additional mitigation as may be required.</p> <p>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.</p> <p>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 and support the reduction of vehicle related emissions.</p>	+/-	-	0	-	-	0	+/-	-	+/-	0	+

Description	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
	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.											
Promote and Facilitate EVs: Develop an EV charging strategy for the city centre	<p>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 across the extent of the local authority's functional area.</p> <p>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.</p> <p>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.</p>	0	0	0	0	-	0	+/-	-	+	0	+
Car club - EVs : Support the roll out of EV car clubs and infrastructure in the DZ		0	0	0	0	-	0	+/-	-	+	0	+
Post office upgrades of delivery vehicles: An Post are leaders within the wider public service in the drive to reduce emissions.	This action has the potential to have moderate positive environmental effects in terms of GHG emissions reductions associated with the use of more sustainable vehicles than ICE-based vehicles.	0	0	0	0	0	0	+	0	0	0	+

Description	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
Light electric Vehicles: LCCC will investigate the potential of developing a pool of evs for use between its corporate buildings	This action will likely promote a reduction in transport emissions associated with commuting using ICE based vehicles - which has the potential to generate some degree of positive effects on climate and local air quality.	0	0	0	0	0	0	+	0	0	0	+
Cargo Bikes: +CxC supported the trialling of a community cargo bike sharing initiative. There is potential to extend the trial.	This action may lead to some degree of GHG emissions reductions, depending on the outcome of the trial. This may support modal and the use of active travel.	+	0	0	0	0	0	0	0	0	0	+
eScooters: The potential to provide an eScooter will be investigated	This action will have no real environmental effect when considered in isolation.	0	0	0	0	0	0	0	0	0	0	0
Developing MaaS (mobility as a services), eMaaS and mobility hubs: In the absence of curtilage parking the development of eMaas and mobility hubs in the DZ will support the objectives of increasing the city's population	This action supports modal shift and the use of sustainable alternatives to private vehicles. This may result in some degree of GHG emissions reductions in the DZ.	0	0	0	0	0	0	+	0	0	0	+
LSMATS Park and Ride Hubs: Hubs at strategic locations outside city to reduce traffic coming into the city.	The development of infrastructure associated with transport mobility hubs may result in negative construction related environmental effects, including effects on water quality, Biodiversity, European sites and local noise, dust and traffic related effects. The delivery of expanded sustainable/active travel networks 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.	+	-	0	0	0	0	+/-	-	+	0	+

Description	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
Electric Buses: Bus Eireann are in the process of procuring and deploying an electric bus fleet in Limerick City.	This action will lead to some degree of GHG emissions reductions from public transport vehicles as there is a shift from ICE-based vehicles to more sustainable alternatives.	0	0	0	0	0	0	+	0	0	0	+
Opera Site: Limerick 2030 have pioneered a construction waste minimisation methodology in the enabling works carried out on the site. This methodology can be used on other demolition projects across the city.	This action is likely to promote effective waste management and waste/material circularity in construction. 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	+
Building Lifecycle: Building and urban area life cycle analysis triggering decisions that impact sustainability, these works happen in a sustainable and circular way.	This action may lead to some degree of GHG emissions reductions at historic buildings. This will lead to positive environmental effects in terms of climate-related issues.	0	0	0	0	0	0	0	0	0	0	+
Carbon Calculator: Develop a carbon calculator that can be utilised by the construction industry to measure the carbon in any proposed project	This action may lead to some degree of GHG emissions reductions from construction sites. This will lead to positive environmental effects in terms of climate-related issues.	0	0	0	0	0	0	0	0	0	0	+
Tree Planting: Tree planting offers the potential to address the heat island effect which will become more pronounced as global warming increases. There is potential to increase planting and greening across the city.	This is likely to increase tree planting and engagement with nature which will promote environmental stewardship and 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	+	+

Description	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
<p>Blue Green Infrastructure: The Blue Green Infrastructure delivers a vital role in addressing climate change (e.g. through surface water and flood management, storing greenhouse gases, providing habitats for wildlife) whilst providing a wide range of benefits and supports. The Limerick BGI Strategy presents a road map for its integration across the city and environs.</p>	<p>This action supports the development of additional green and blue infrastructure.</p> <p>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).</p> <p>The delivery of green infrastructures that provide 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.</p> <p>Blue Green Infrastructure 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.</p> <p>The delivery of blue/green infrastructure has the potential to generate very significant positive tourism, recreation and cultural heritage related benefits/effects.</p>	+	+/-	+	0	+/-	+	+/-	+/-	+	+	+
<p>Green Walls: The concept of a green wall should be trialed as part of a general green initiative for the city centre to address issues such as air quality and heat island impacts</p>	<p>The use of green walls provides an opportunity for biodiversity enhancement in urban settings in support of the All-Ireland Pollinator Plan. Green walls may also contribute to higher air quality and offsetting local GHG emissions, whilst also enhancing visual amenity of the urban landscape.</p>	0	+	+	0	0	0	+	+	0	0	+

Description	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
footprint, (iii) find and buy products from sustainable business and (iv) measure and track individuals, communities and cities environmental footprint based on actions and transactions.												
Colbert Station Quarter Development Masterplan: Land Development Agency Project	This action is broad and unspecific in nature. It is acknowledged that the Colbert Station Quarter Development supports the construction of additional active travel infrastructure, amongst other developments. In the absence of any mitigation, works involved in the construction of additional active travel 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).	0	0	0	0	0	+	+/-	+/-	0	+	+

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