



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE &
PLANNING

LOCAL AUTHORITY CLIMATE ACTION PLAN

SEA Environmental Report

Prepared for:
Carlow County Council



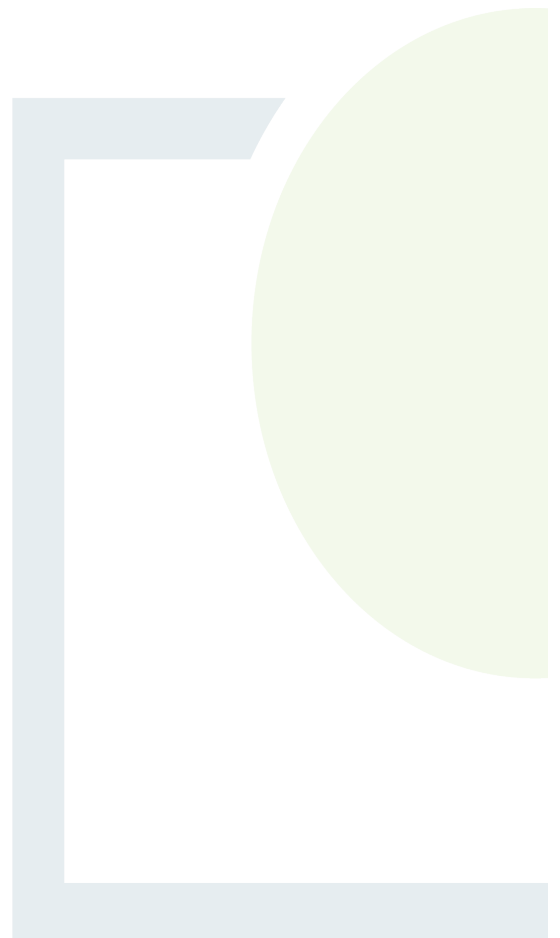
Date: January 2024

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 Carlow County Council

REVISION CONTROL TABLE, CLIENT, KEYWORDS AND ABSTRACT

User is responsible for Checking the Revision Status of This Document

Rev. No.	Description of Changes	Prepared by:	Checked by:	Approved by:	Date:
1	For Issue	RD/AT/EW/EV/BF/MG/AMW	AT	BG	10/01/2024

Client: Carlow County Council

Keywords: Carlow, Strategic Environmental Assessment, SEA, Environmental Report, Local Authority Climate Action Plan, LACAP.

Abstract: Fehily Timoney and Company is pleased to submit this SEA Environmental Report for the LACAP 2024-2029 to Carlow County Council.

TABLE OF CONTENTS

NON-TECHNICAL SUMMARY	1
Introduction.....	1
Background.....	1
Approach to SEA.....	1
The Plan	1
The Environmental Baseline.....	2
Evolution of the Baseline Environment.....	6
Strategic Environmental Objectives	7
Description and Evaluation of Plan Alternatives.....	9
Evaluation of the Environmental Effects of Plan Implementation.....	10
Mitigation Measures	12
Monitoring Measures.....	13
1. INTRODUCTION	14
1.1 Background.....	14
1.2 SEA Environmental Report	14
1.3 Background to SEA and Legislative Context	15
1.4 Purpose of this SEA.....	15
1.5 Appropriate Assessment	16
2. THE DRAFT PLAN.....	17
2.1 Overview.....	17
2.2 Context	17
2.3 Plan Content	18
2.4 Overall Vision and Strategic Outcomes	18
2.5 Relationship of the Plan with other Relevant Plans and Programmes.....	19
3. SEA METHODOLOGY	20
3.1 The SEA Process.....	20
3.2 Overview of the LACAP SEA and AA Processes	21
3.3 SEA Processes Undertaken To Date.....	23
3.4 SEA Environmental Report	25
3.5 SEA Statement	30
3.6 Integrated Biodiversity Impact Assessment	30

3.7	Outcomes of the LACAP SEA and AA Processes	30
4. THE ENVIRONMENTAL BASELINE		
4.1	Introduction.....	31
4.2	Population and Human Health	34
4.3	Biodiversity, Flora & Fauna.....	37
4.4	Landscape& Visual Amenity	43
4.5	Cultural Heritage - Archaeology & Architectural.....	44
4.6	Soils.....	47
4.7	Land Use	51
4.8	Air Quality & Noise	53
4.9	Water.....	56
4.10	Material Assets	70
4.11	Tourism & Recreation.....	73
4.12	Climate Change.....	74
4.13	Constraints and Opportunities	75
4.14	Evolution of the Baseline Environment without the implementation of the Plan.....	77
5. STRATEGIC ENVIRONMENTAL OBJECTIVES		
6. DESCRIPTION AND EVALUATION OF PLAN ALTERNATIVES		
6.1	Introduction.....	82
6.2	Goal of the Reasonable Alternative Evaluation Process in SEA.....	82
6.3	Approach to Developing Reasonable Alternatives	83
6.4	Identification and Description of Reasonable Alternatives.....	84
6.5	Evaluating the Environmental Effects of Reasonable Alternatives	86
6.6	Reasons for Choosing the Preferred Plan.....	92
6.7	Data Gaps and Technical Limitations relating to the Identification and Evaluating Reasonable Alternatives	92
7. EVALUATION OF THE ENVIRONMENTAL EFFECTS OF PLAN IMPLEMENTATION		
7.1	Introduction.....	93
7.2	Evaluation of the Environmental Effects of Plan Implementation	93
7.3	Potential Cumulative Effect of the LACAP in combination with other Plans and Projects	95
8. MITIGATION MEASURES.....		
8.1	Mitigation through consideration of alternatives	99
8.2	Mitigation through integration of environmental considerations into the Plan	100

8.3	Mitigation through consideration of environmental protection objectives contained in the County Development Plan	106
8.4	Conclusion	106
9.	POST DRAFT PLAN CONSULTATION REVISIONS	107
10.	MONITORING MEASURES	108

LIST OF APPENDICES

Appendix 1 – Relationship of the Plan with other relevant Plans and Programmes

Appendix 2 – Scoping Consultation Feedback

Appendix 3 – Detailed Evaluation of the Environmental Effects of Plan Implementation

LIST OF FIGURES

	<u>Page</u>
Figure 3-1: SEA and AA Stages and Key Deliverables	20
Figure 3-2: Overview of the SEA Process in the Review and Preparation of the Local Authority Climate Action Plan (including AA processes)	22
Figure 4-1: Study Area Boundary.....	33
Figure 4-2: Major Settlement Patterns within Ireland (Source: OSI)	35
Figure 4-3: Population Density	36
Figure 4-4: Special Areas of Conservation and Special Protection Areas in Ireland (Source: NPWS)	41
Figure 4-5: Natural Heritage Areas and proposed Natural Heritage Areas in Ireland (Source: NPWS)	42
Figure 4-6: Archaeological Heritage and National Monuments Map	46
Figure 4-7: Geology of Ireland (Source: GSI)	49
Figure 4-8: Geological Heritage Sites of Ireland (Source: GSI)	50
Figure 4-9: Land Use of Ireland (Source: EPA-CORINE)	52
Figure 4-10: Noise Mapping Lden (Day, Evening, Night; a measurement over 24 hours)	55
Figure 4-11: Hydrology	58
Figure 4-12: WFD Surface Water Status.....	59
Figure 4-13: Aquifer Classification.....	60
Figure 4-14: Wells and Springs	61
Figure 4-15: Groundwater Vulnerability.....	62
Figure 4-16: Groundwater Productivity.....	63
Figure 4-17: Drinking-water Source Protection Areas.....	64
Figure 4-18: WFD Register of Protected Areas.....	69
Figure 4-19: Constraints and Opportunities Map.....	76
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).....	84

LIST OF TABLES

	<u>Page</u>
Table 2-1: LACAP Theme Area and Main Objectives.....	18
Table 3-1: SEA Environmental Report Authors	27
Table 3-2: SEA Environmental Report Checklist.....	29
Table 4-1: Designated Ecological Sites and Protected Species	37
Table 4-2: Ecological Connectivity and Non-designated Habitats	39
Table 4-3: Landscape Character Areas and High Amenity Areas	43
Table 4-4: Soil Types Covering the County.....	47
Table 5-1: Strategic Environmental Objectives	80
Table 6-1: Reasonable Alternatives to the LACAP.....	85
Table 6-2: Evaluation of the Environmental Effects of Reasonable Alternatives	87

Table 7-1:	Overview of the Key Environmental Effects of Plan Implementation	94
Table 7-2:	Inter-relationship between Environmental Components	97
Table 8-1:	Proposed Environmental Mitigation Measures - Additional text to be included in plan actions clarifying environmental protection related obligations and environmental enhancement opportunities.....	101
Table 8-2:	Proposed Environmental Mitigation Measures - Integrated Environmental Considerations relating to Decarbonising Zone Opportunities suggested for inclusion in the plan	105
Table 8-3:	Proposed Environmental Mitigation Measures - Environmental Governance Principles suggested for inclusion in the plan - specifically the plan implementation section	105
Table 10-1:	SEA Monitoring Programme.....	109



NON-TECHNICAL SUMMARY

Introduction

This is the Non-Technical Summary of the environmental report for the Strategic Environmental Assessment (SEA) of the Local Authority Climate Action Plan (herein referred to as the 'Plan' or 'LACAP') 2024-2029 for the Carlow County 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 is to define adaptation and mitigation measures at local level to support the reduction of Greenhouse Gas (GHG) emissions within a local authority as an organization 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 CCC LACAP is an action plan which defines local level climate adaptation and mitigation measures to support the reduction of GHG emissions within the local authority as an organization 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 organization 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 LACAP will be from 2024 to 2029. The Council must review and update the plan after a period of 5 years.

The LACAP was 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 LACAP is to deliver effective climate mitigation and adaptation at local level in support of the broader societal goal of achieving climate resilience and climate neutrality.

Through the development and implementation of specific, action-focused, time-bound and measurable actions, the 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 LACAP was undertaken to inform the SEA process.

The following Environmental Components were considered during this evaluation:

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



A non-technical and high-level summary of the baseline environment is provided in the table below. This table presents key, salient facts regarding the baseline environment of the local authority functional area the LACAP applies to.

Environmental Component	Summary of the Baseline Environmental Characteristics
Population and Human Health	<ul style="list-style-type: none"> In the 2022 Census, the total population of Carlow was 61,968 persons, showing the trend of an increase in total population in the County by ca. 8.8% (5,036 persons) since the previous Census. The National Planning Framework population projection predicts a rise in Carlow's population to between 64,000-65,500 by 2031.
Biodiversity, Flora & Fauna	<ul style="list-style-type: none"> There are four designated SACs within, partially within or adjacent to the County, including: Blackstairs Mountains SAC (000770); Slaney River Valley (000781); River Barrow and River Nore SAC (002162); and Holdenstown Bog SAC (001757). There are two SPAs adjacent to the County: Wicklow Mountains SPA (004040); and River Nore SPA (004233). There are eight pNHAs within or partially within the County, including: Ardristan Fen (000788); Blackstairs Mountains (000770); Slaney River Valley (000781); Cloghrick Wood (000806); Baggot's Wood (000792); Ballymoon Esker (000797); John's Hill (000808); and Oakpark (000810). Existing TPOs within the County were identified within the County Development Plan. There is one designated Flora Protection Order Site in the County: Yellowford Cross Roads (<i>Hamatocaulis vernicosus</i>). There is one Wildfowl Sanctuary in Carlow; the River Barrow (WFS-01). There is one river in County Carlow designated as a Salmonid River under these regulations: The River Slaney.
Landscape & Visual Amenity	<ul style="list-style-type: none"> Mount Leinster and the Blackstairs Mountains are situated to the east of the County, along the Wexford border. In the centre of the County, the central lowlands occupy a substantial portion of the County and hosts the County's major settlements. In the northern corner of the County, the central lowlands gradually shift into the River Slaney and the East Rolling Farmland landscape, while the Killeshin Hills lie to the west of the County and are bounded by the River Barrow and the R448. The current Landscape Character Assessment for Carlow divides the County into four Landscape Character Areas.
Cultural Heritage - Archaeology & Architectural	<ul style="list-style-type: none"> There are hundreds of Recorded Monuments within the Plan area. Clusters of monuments are concentrated within and adjacent to the existing built-up footprint of the County and in the rural areas. Enclosures, ringforts, churches, and graveyards are amongst the most common recorded monuments. There are 14 recorded monuments on the RMP in State Care. There are hundreds of entries to the Record of Protected Structures.
Soils	<ul style="list-style-type: none"> Dominant soil types in the county include: luvisols and brown earths. Other soil types in the county include peat soils, alluvial soils, podzols, and surface water gleys
Land Use	<ul style="list-style-type: none"> Land use mapping for Carlow is shown in Figure 4-9 of the main body of the report. This mapping shows the extent of all land use present in the county (e.g., urban fabric, agricultural land use, forest, peatland etc.)
Air Quality & Noise	<ul style="list-style-type: none"> Carlow Town is defined as 'Zone C', while its surrounding rural areas are defined as 'Zone D'. The current air quality in Carlow is identified by the EPA as being of Good status. Noise mapping for Carlow is shown in Figure 4-10 of the main body of the report. This mapping shows the extent of noise along major roads.
Water	<ul style="list-style-type: none"> The County is largely situated within the Barrow and Slaney and Wexford Harbour catchments, with a small area in the north-west of the County situated partially within the Nore catchment. The River Barrow and the River Slaney are the main rivers in the catchment.



Environmental Component	Summary of the Baseline Environmental Characteristics
	<ul style="list-style-type: none"> The WFD groundwater status (2016-2021) underlying Carlow is generally identified as being of Good status. There is a stretch of Poor groundwater status ranging from Muine Bheag to Carlow town, and beyond the County border to Athy. The WFD status of rivers and streams (2016-2021) draining Carlow ranges from high (sections of rivers and streams, including the Clody), to good (sections of rivers and streams, including the Slaney, the Barrow, the Burren, and the Aughavaud), to moderate (sections of rivers and streams including: the Slaney, the Pollmounty, Palatine Stream, the Barrow, and the Aghalona) and to poor (sections of rivers and streams including: the Douglas, the Barrow, Ballynaboley Stream, and Ballaghmore Distributary.). The WFD surface water status (2016-2021) of rivers within and surrounding Carlow Town is identified as 'moderate'.
Material Assets	<ul style="list-style-type: none"> Carlow is traversed by a hierarchy of roads, including sections of the M9 motorway, the N80, and the N81 national primary routes, providing important linkages and networks within, into, and around the County. Carlow town and Muine Bheag are serviced by the Dublin to Waterford intercity rail line. The Green Infrastructure strategy for Carlow provides a vision and a robust spatial framework which will identify, protect, promote and enhance the GI assets in the urban and rural environments of the County.
Tourism & Recreation	<ul style="list-style-type: none"> Faile Ireland has recently published their four brand strategies; most relevant to Carlow is Ireland's Ancient East. At a county level, CCC has developed the County Carlow Tourism Strategy and Action Plan 2020-2025.
Climate Change	<ul style="list-style-type: none"> Carlow is affected by climate change policy and issues broadly. 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.

A brief and non-technical summary of the key issues and potential associated with the environmental baseline relevant to the LACAP has been provided below.

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.

Population and Human Health – Key Issues relating to the 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 LACAP

- Route selection and classification criteria are a key consideration in the development of blueways and greenways within the 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 & Visual Amenity – Key Issues relating to the LACAP

- 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.

Cultural Heritage – Key Issues relating to the LACAP

- 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 were identified.

Soils – Key Issues relating to the 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 LACAP

- Potential constraints on commercial activities, both during construction and operation of renewable energy infrastructure projects associated with the 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 LACAP.



Air Quality and Noise – Key Issues relating to the LACAP

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

Water – Key Issues relating to the 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 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 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 LACAP

- The 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 LACAP.

Evolution of the Baseline Environment

The SEA Directive requires that consideration is given to the likely evolution of the baseline environment in the event the LACAP is not progressed and implemented. In the event the LACAP was not implemented; the baseline environment would primarily evolve in line plans and policies currently being implemented (e.g., the Development Plan for the local authority functional area).



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

None of the specific climate related adaptation or flood resilience actions defined in the 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.

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

The biodiversity related protection measures defined in the 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 active travel/sustainable transport related actions in the 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.

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 were 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 LACAP were identified.

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

All SEOs applicable to the 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.



Environmental Component	SEO Code	Strategic Environmental Objective
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, non-designated locally important sites, and sites proposed for designation; and to comply with the Wildlife Acts 1976-2012 with regard to listed species.
	B5	No net contribution to biodiversity losses or deterioration in response to the biodiversity emergency.
Landscape & 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 minimize effects on local air quality.
	AQN3	Avoid or minimize 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.

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
	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 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 were assessed against the Strategic Environmental Objectives (SEOs) established for the aspects of the baseline environment which are likely to be significantly affected by the 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 LACAP were identified:

- Alternative 1 - The Pareto Approach: Prioritize 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 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 was 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 realize 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 organizational, 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 realize 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 was 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 variety of climate actions defined in the plan, including organizational and community based actions are likely to positive effect the climate environment.
- 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.



- 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, and the receiving noise environment.
- The plan supports the increased use of light-emitting diode (LED) lighting potentially across a wide geographic area. In absence of appropriate mitigation, the wide use of such 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.
- The plan supports the carrying out of a range of flood alleviation and resilience action that will have a 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.
- The carrying out of the range flood alleviation and resilience action contained in the plan has the potential to create unintended and potentially significant negative environmental effects in the absence of appropriate mitigation, including effects on water and biodiversity environments.
- Plan actions support better resource management and the circular economy at organizational, 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 or wildfires. 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 vehicles 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 LACAP (without considering any mitigation) were 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 were adopted to ameliorate the negative environments of the 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 was 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 LACAP were developed and then integrated into the 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 maximizing identified positive environmental effects of the LACAP.

Mitigation measures were proposed that maximize 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 was attached to a variety of defined actions in the plan. This text was shaped to ensure that environmental considerations are appropriately taken into account during plan implementation. Again, This text has also been shaped to ensure plan implementation generates the minimum level of negative environmental effects and the maximum level of positive environmental effects.



A set of integrated environmental protection and enhancement considerations were defined that Decarbonising zone opportunities must accord with.

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 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 LACAP. These development management standards/environmental protection measures were defined for the express purpose of ensuring proper planning and sustainable development in the County. The CDP was subject to its own SEA and AA. The LACAP was 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 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 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 LACAP. No further mitigation measures are required for the 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 were 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 LACAP and the progress of SEO objectives and targets. SEO targets set focussed, measurable aims and thresholds that the LACAP can support the achievement of.

A robust monitoring programme was 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 realized, the LACAP should be reviewed and updated in a manner that supports the realization of all potential positive environmental effects, having regard to the overall vision and high-level objectives of the plan.



1. INTRODUCTION

1.1 Background

Carlow County Council (CCC) has prepared the Draft Local Authority Climate Action Plan (herein referred to as the 'Plan' or 'LACAP') 2024-2029 for the Carlow 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 is to define adaptation and mitigation measures at local level to support the reduction of Greenhouse Gas (GHG) emissions within a local authority as an organization 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, environmental effects are likely, and therefore Strategic Environmental Assessment (SEA)² is required to be undertaken on the Plan. Fehily Timoney and Company (FT) were commissioned by CCC to complete an SEA for the LACAP.

1.2 SEA Environmental Report

This document was produced by FT and is the SEA Environmental Report for the 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 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 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 a draft version of the 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 were 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 LACAP-making process and to:

1. Identify, evaluate and describe the likely significant effects on the environment of implementing the 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 were 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 LACAP was subject to stage 2 of the AA process, and a Natura Impact Report (NIR) was prepared alongside the SEA - the details of which were integrated into the SEA process.

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



2. THE DRAFT PLAN

2.1 Overview

The CCC LACAP is an action plan which defines local level climate adaptation and mitigation measures to support the reduction of GHG emissions within the local authority as an organization 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 organization 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 LACAP will be from 2024 to 2029. The Council must review and update the plan after a period of 5 years.

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

Table 2-1: LACAP Theme Area and Main Objectives

Theme Area	Main Objective
Governance & Leadership	Support the development and implementation of positive climate action across all operations of Carlow County Council and collaborate with others to influence and assist in their endeavours to reduce their negative climate impact.
Built Environment & Transport	Reduce Carlow County Council's impact on Climate Change through increasing energy efficiency in our buildings reducing reliance on fossil-based fuels in our fleet and influencing the actions of others within our community by increasing resilience through our Housing stock and transport infrastructure.
Natural Environment & Green Infrastructure	Carlow County Council will facilitate and support protection, management and enhancement of the natural heritage, biodiversity, landscape and environment of County Carlow in recognition of its importance as a non-renewable resource, a unique identifier, and as a natural resource asset.
Communities: Resilience & Transition	Carlow County Council will inform, influence, empower and support the community of Carlow to developing and implementing their local Climate Action measures.
Sustainability & Resource Management	Carlow County Council will implement and monitor a range of policies and practices to reduce our environmental impact, enhance resource efficiency, and create long term economic and social benefits.
Decarbonising Zone	N/A

2.4 Overall Vision and Strategic Outcomes

The overall vision of the LACAP is to deliver effective climate mitigation and adaptation at local level in support of the broader societal goal of achieving climate resilience and climate neutrality.

Through the development and implementation of specific, action-focused, time-bound and measurable actions, the 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 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, and
- 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.

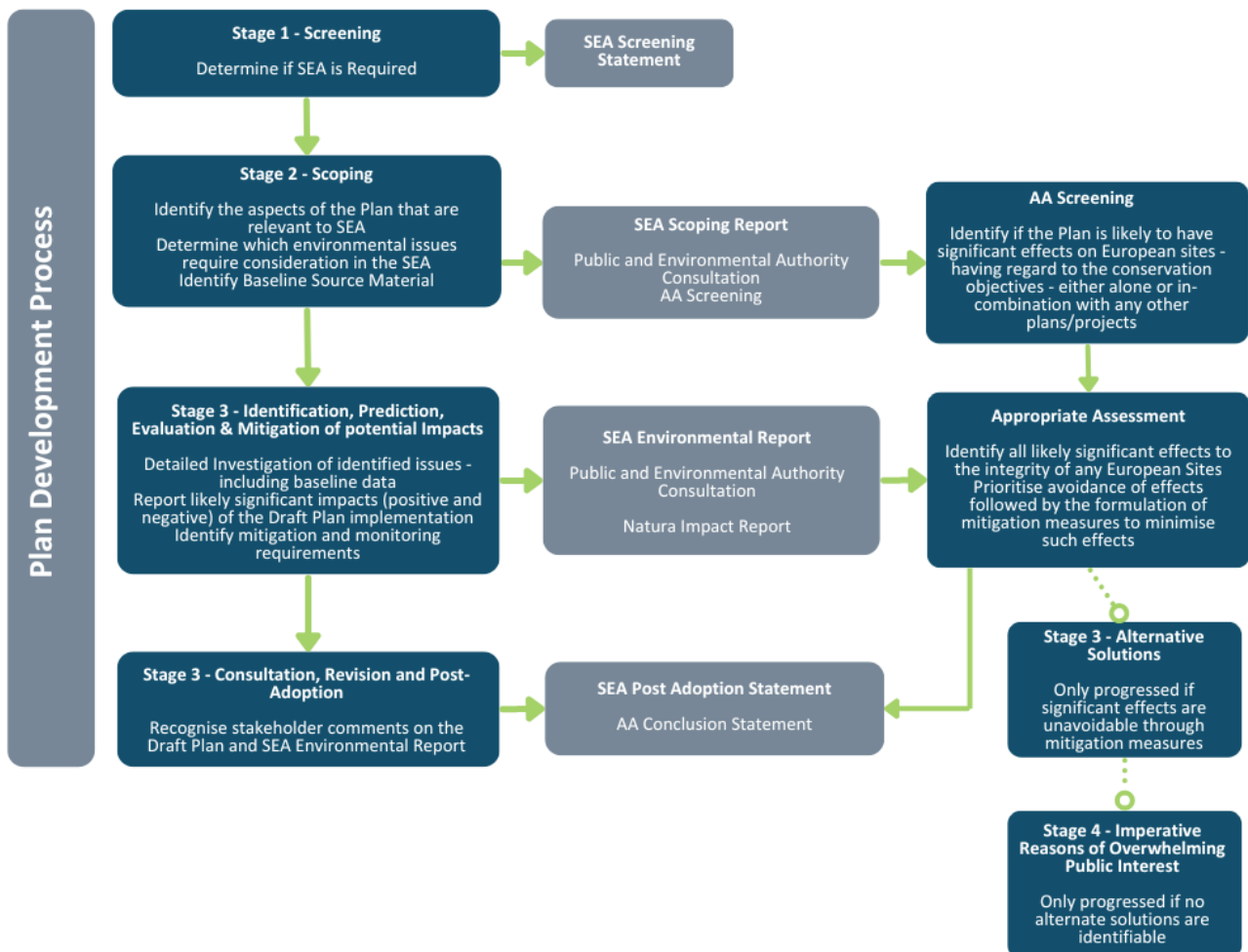


Figure 3-1: SEA and AA Stages and Key Deliverables



3.2 Overview of the LACAP SEA and AA Processes

Given the scale and nature of the LACAP, environmental effects were likely, and therefore SEA was 'screened in' in this instance.

An SEA Scoping Report was produced for an initial draft version of the LACAP. This SEA Scoping Report, along with SEA scoping submissions and consideration of these submissions by the SEA process, helped communicate and define the scope of the environmental issues that were dealt with by the SEA, 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 LACAP, SEA and AA are taking place concurrently and the findings of the SEA and AA will inform the LACAP.

Taking into account the scope detailed in the SEA Scoping Report which was produced for the LACAP, the environmental effects associated with the implementation of the LACAP were 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 LACAP. This report will accompany the 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 LACAP and SEA Environmental Report on public display. The SEA will follow elements of Integrated Biodiversity Impact Assessment⁸.

Consultation submissions relating to the documentation were responded to in the local authority Chief Executive's report on public consultation. Updates were made to the SEA and AA documentation where relevant following on from receipt and consideration of the consultation submissions.

Any proposed modifications to the LACAP at that stage were examined to ensure they did not generate additional likely, significant effects on the receiving environment or the Natura 2000 network of designated ecological sites not previously considered by SEA/AA processes.

This SEA Environmental Report and associated AA documentation have now been finalized in advance of the adoption of the LACAP.

An SEA Statement, which will include information on how environmental considerations were integrated into the LACAP, will be prepared in advance of plan publication.

The LACAP will then be implemented, and SEA 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.

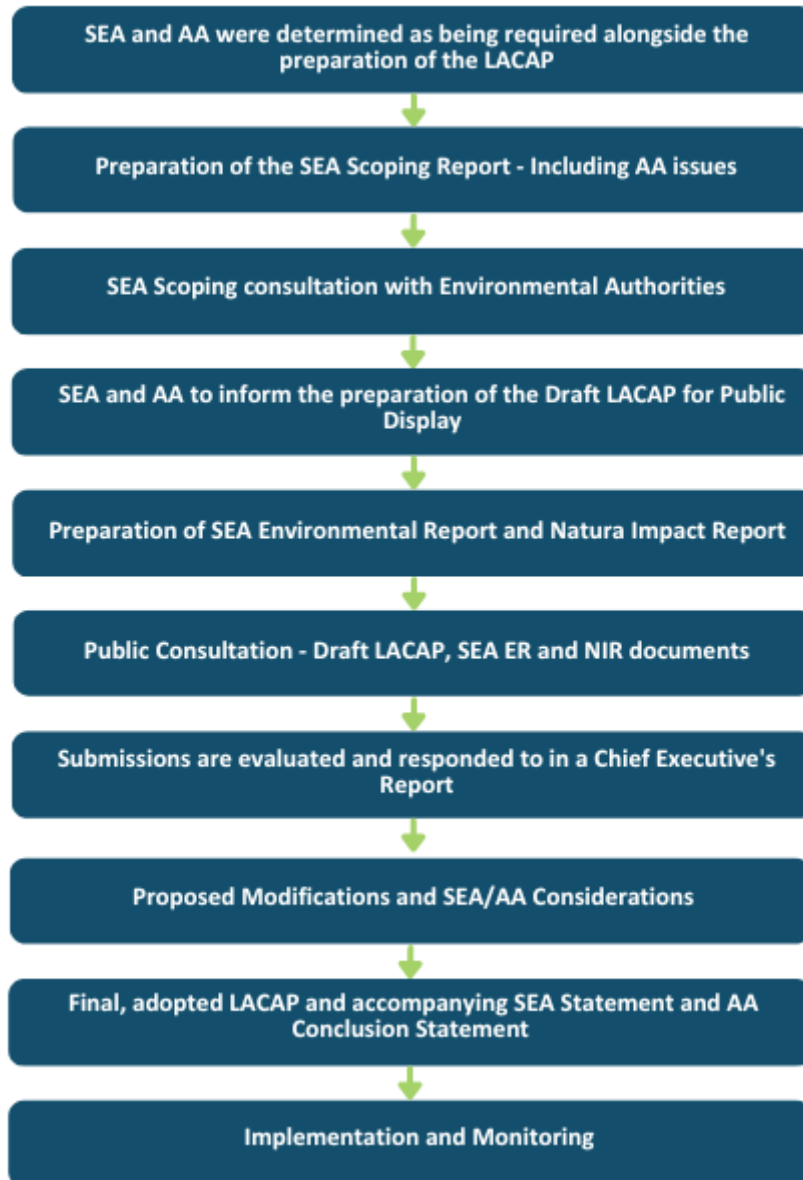


Figure 3-2: Overview of the SEA Process in the Review and Preparation of the Local Authority Climate Action Plan (including AA processes)



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 was 'screened in' in this instance. An SEA Screening Statement to this effect was produced by the CCC LACAP.

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

1. The LACAP will define a framework sets a framework for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources.
2. The LACAP has the potential to give rise to environmental problems.
3. The LACAP will support the achievement of the principles and policies of European climate change related legislation (e.g., 'European Climate Law'⁹).
4. The LACAP has the potential to likely significant environmental effects based its impact on likely impact on land use and development, its 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 LACAP which was informed by consultation response from the environmental authorities. The SEA Scoping Report outlined information on the LACAP, including the need for the 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.

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



The SEA Scoping Report, along with SEA scoping submissions and consideration of these submissions by the SEA process, 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.

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

- Population and Human Health
- Biodiversity, Flora & Fauna
- Landscape & 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 version of the 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.

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."



In addition to the above statutory Environmental Authorities, the following interested stakeholders were consulted during public consultation on the SEA Environmental Report:

- An Taisce
- Birdwatch Ireland
- Climate Change Advisory Council
- 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
- Office of Public Works (OPW)
- Regional Authorities¹¹
- Sustainable Energy Authority of Ireland (SEAI)
- Teagasc
- Tourism Ireland

Members of the public were also provided with an opportunity to make submission on the draft version of the LACAP.

All consultation responses received from the above interested stakeholders and members of the public were considered as appropriate during plan-making, SEA and AA processes.

3.4 SEA Environmental Report

3.4.1 Environmental Assessment Approach and Methodology

The third stage involved the strategic level identification, prediction, evaluation and mitigation of potential environmental impacts associated with the LACAP. An SEA Environmental Report was 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.

¹¹ Southern Region.



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).
- 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 were 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 during 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 was produced for CCC's LACAP and was issued to the statutory Environmental Authorities and identified interested stakeholders to allow them to make submissions on the LACAP, the environmental assessment undertaken, and the environmental mitigation and monitoring measures proposed. It was also published for public display with a draft version of the LACAP, to allow for members of the public to make submissions on the environmental assessment.

3.4.2 [SEA Environmental Report Authors](#)

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



FT was retained by CCC to undertake SEA of the 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 was the principal ecologist responsible for the preparation and co-ordination of AA and contributions towards the biodiversity elements of the SEA 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>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, 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>



Name and Qualifications	Project Role	Relevant Experience
Chartered Environmentalist, The Society for the Environment		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 organizations.
Eunice Wong B.Sc. First Class Honours, Environmental Science and Sustainable Technology, Munster Technological University, 2022	Project Support	Eunice is a Graduate Environmental Scientist on the Waste and Environmental Team at Fehily Timoney and Company. Eunice holds a First-Class Honours BSc in Environmental Science and Sustainable Technology from Munster Technological University. Eunice was 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 was 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.
Bruna Felipe BE (Hons) Environmental Engineering UNESP, Sao Paulo State University, Brazil	Project Support	Bruna is a Project Environmental Engineer of Fehily Timoney and Company. Bruna holds a BE of Environmental Engineering from UNESP, Sao Paulo State University, Brazil. Bruna was involved in a range of contaminated land projects and Tier II Environmental Risk Assessments (ERA). Bruna was 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 was involved in the preparation of Appropriate Assessment reports and a European Sites library for the Department of Agriculture, Food and Marine. She also has experience developing baseline emission inventories and conducting baseline environmental assessments for multiple projects.
Eibhlin Vaughan First Class Honors BA in Environmental Science, Trinity College Dublin ,2020	Project Support	Eibhlín is a Graduate Environmental Scientist on the Waste and Environmental Team at Fehily Timoney and Company. Eibhlín holds a BA in Environmental Science from Trinity College Dublin where she achieved First Class Honours. As a Graduate Environmental Scientist, she has undertaken a dynamic role, spanning EIAR handling, environmental monitoring, proficient report writing, research, data analysis, and the formulation of effective waste management strategies. Alongside her role within the company, Eibhlín is also completing a Research MEngSc in University College Dublin, for which data collection, analysis, and report writing and presentation play a key role.



3.4.3 Difficulties Encountered

No significant difficulties were 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.

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 were 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.

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.



3.5 SEA Statement

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

The SEA Statement will provide detail on how the environmental assessment and considerations detailed in the SEA Environmental Report and SEA related consultation responses throughout the process have influenced the plan-making process. It will summarize 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 was 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 facilitated 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 - were 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 was 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 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 LACAP was 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 & 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') was gathered using available environmental datasets. The evaluation of the baseline environment was 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 LACAP were identified and examined under each Environmental Component heading.

The SEA Environmental Report has also considered the zone of influence for the LACAP and includes baseline information beyond the 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 which will be 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.


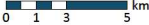
The interrelationships between Environmental Components are addressed throughout this section, as appropriate, under each Environmental Component heading. A summary of Environmental Component interrelationships is also provided.

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/publications-and-reports/strategic-environmental-assessment)



Legend
 Local Authority Boundaries

Local Authority Boundary	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.1
CLIENT:	CARLOW COUNTY COUNCIL
DATE:	15/08/2023
SCALE:	1:207,500 @ A3
 	



Mapping reproduced under licence from the Ordnance Survey Ireland Licence No. EI1 00023221. © Government of Ireland
 OpenStreetMap (CC BY-SA)



4.2 Population and Human Health

4.2.1 Characterisation of the Environmental Baseline

In the 2022 Census, the total population of Carlow was 61,968 persons, showing the trend of an increase in total population in the County by ca. 8.8% (5,036 persons)¹⁴ since the previous Census.

The National Planning Framework population projection predicts a rise in Carlow's population to between 64,000-65,500 by 2031¹⁵.

There are no population projections in the LACAP as the provisions relate only to climate action – however, there are features within the 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.

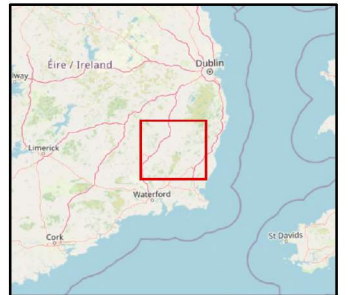
4.2.2 Key Issues Relating to the LACAP

- 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>

¹⁵ Regional Spatial and Economic Strategy for the Southern Region 2019-2031

Mapping reproduced under licence from the Ordnance Survey Ireland License No. CVAL02212298D. Government of Ireland Creative Commons Attribution 4.0 International (CC BY 4.0) licence <https://creativecommons.org/licenses/by/4.0/>.
 OpenStreetMap (OSM) contributors, CC-BY-SA, Imagery © Mapbox

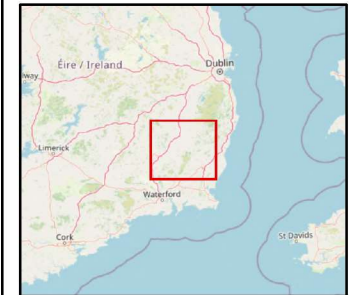
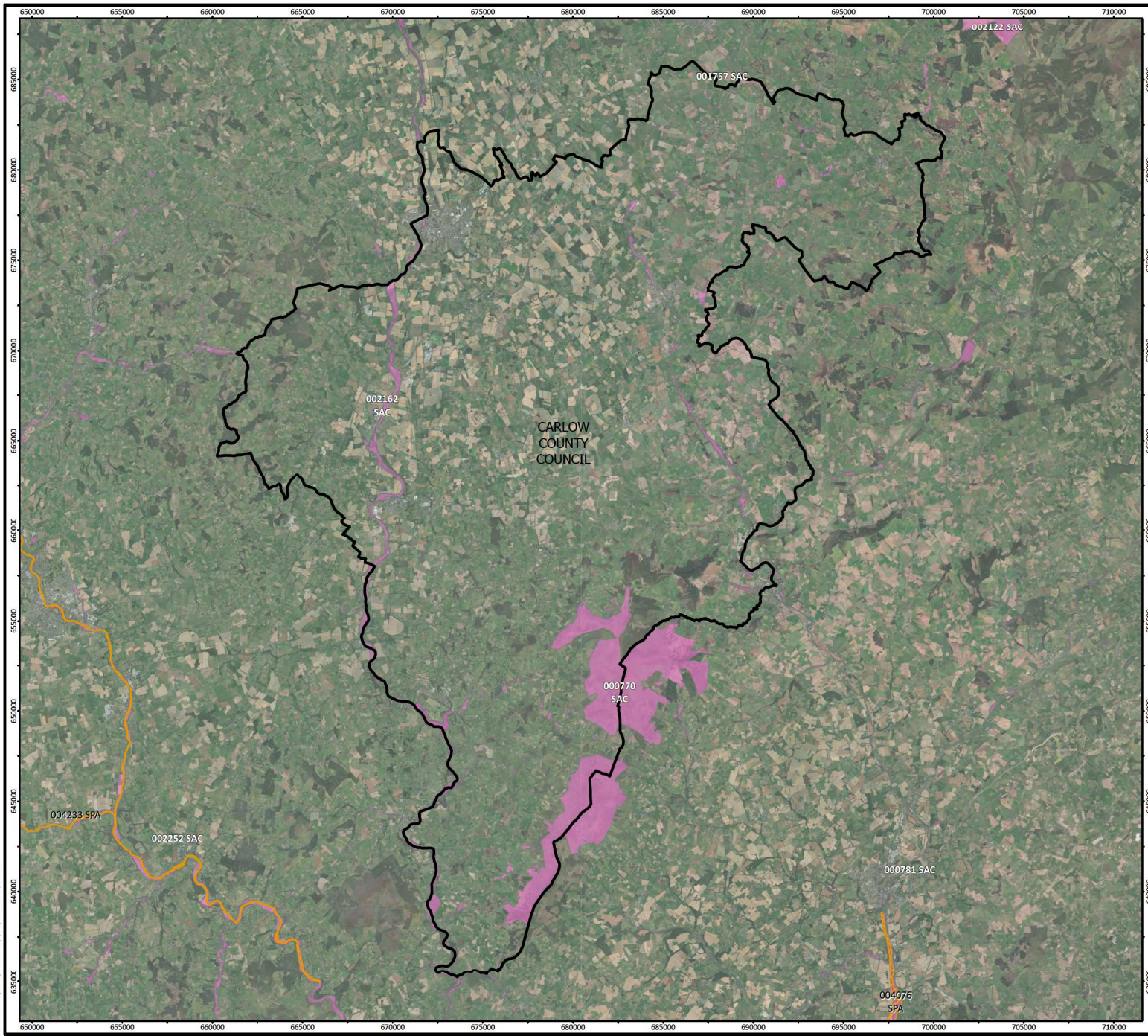


Legend
 [Black outline] Local Authority Boundaries
 [Light blue fill] Census Settlements

Major Settlement Pattern	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.2
CLIENT:	CARLOW COUNTY COUNCIL
DATE:	30/08/2023
SCALE:	1:207,500 @ A3

Path: C:\Map Production\2023\1923-076\Workspaces\USA\SEA_ER_Fig_4_1_Major_Settlement_Patterns_within_Ireland.aprx

Mapping reproduced under licence from the Ordnance Survey Ireland licence No. CVL02222298D. Government of Ireland Creative Commons Attribution 4.0 International (CC BY 4.0) licence <https://creativecommons.org/licenses/by/4.0/>.
OpenStreetMap (and) contributors, CC BY-SA



Legend

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

Special Areas of Conservation and Special Protected Areas	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.3
CLIENT: CARLOW COUNTY COUNCIL	
DATE: 15/08/2023	SCALE: 1:207,500 @ A3

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



4.3 Biodiversity, Flora & Fauna

4.3.1 Characterisation of the Environmental Baseline

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 Carlow 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 currently no UNESCO Heritage and Biosphere sites in the County.
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 four designated SACs within, partially within or adjacent to the County, including: Blackstairs Mountains SAC (000770); Slaney River Valley (000781); River Barrow and River Nore SAC (002162); and Holdenstown Bog SAC (001757). These and other sites beyond the County border that could be affected by the LACAP were 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 no designated SPAs designated within or partially within the County. There are two SPAs adjacent to the County: Wicklow Mountains SPA (004040); and River Nore SPA (004233). These and other sites beyond the County border that could be affected by the LACAP were considered by the assessments.
RAMSAR sites ²¹	The Convention of Wetlands of International Importance, especially as Waterfowl Habitat, was established at Ramsar in 1971 and ratified by Ireland in 1984. The main aim of the Convention is to secure the designation by each contracting state of wetlands in its territory for inclusion in a list of wetlands of international importance for waterfowl. This entails the commitment of each contracting state to a policy of protection and management of the designated wetlands, and of formulating and implementing planning so as to promote the conservation of designated wetlands and, as far as possible, the wise use of wetlands in its territory. Ireland presently has 45 sites designated as Wetlands of International Importance, with surface areas of 66,994 hectares. There are no designated Ramsar sites within, partially within, or adjacent to Carlow County.

¹⁷ [Designated site data | National Parks & Wildlife Service \(npws.ie\)](#)

¹⁷ [Designated site data | National Parks & Wildlife Service \(npws.ie\)](#)

¹⁸ [Habitats Directive \(1992/43/EEC\) - habitats and species listed in Annex I and II](#)

¹⁹ [Ramsar Sites - Datasets - data.gov.ie](#)



Environmental Features	Description
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 no designated NHAs within, partially within, or adjacent to the County.
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 eight pNHAs within or partially within the County, including: Ardristan Fen (000788); Blackstairs Mountains (000770); Slaney River Valley (000781); Cloghristick Wood (000806); Baggot's Wood (000792); Ballymoon Esker (000797); John's Hill (000808); and Oakpark (000810).
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 were identified within the County Development Plan.
Flora Protection Order Sites ²⁴	The Flora (Protection) Order, 2015 (S.I. No. 356 of 2015) 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 Acts is set out in the Flora (Protection) Order, 1999. There is one designated Flora Protection Order Site in the County: Yellowford Cross Roads (<i>Hamatocaulis vernicosus</i>).
Wildfowl Sanctuaries ²⁵ (See S.I. 192 of 1979)	Wildfowl Sanctuaries are areas that were excluded from the 'Open Season Order' so that game birds can rest and feed undisturbed. There are 68 sanctuaries in the State. Shooting of game birds is not allowed in these sanctuaries. There is one Wildfowl Sanctuary in Carlow; the River Barrow (WFS-01).
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>). There is one river in County Carlow designated as a Salmonid River under these regulations: The River Slaney.
CORINE Landcover ²⁷	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 pastures and agricultural lands. Concentrations of peat bogs occur mainly in the south-east of the County.

²² [Natural Heritage Areas \(NHA\) | National Parks & Wildlife Service \(npws.ie\)](#)

²³ [EPA Maps](#)

²⁴ [Flora Protection Order Map Viewer \(npws.ie\)](#)

²⁵ [Wildfowl Sanctuaries | National Parks & Wildlife Service \(npws.ie\)](#)

²⁶ [Register of Protected Areas - Salmonid Water Regs Table - Datasets - data.gov.ie](#)

²⁷ [EPA Maps](#)



Environmental Features	Description
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 in County Carlow.
Nature Reserves ²⁸	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 in County Carlow.

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

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

	Description
Ecological connectivity and networks (including steppingstones and corridors)	Riparian habitats, hedgerow and other blue and green infrastructure networks. Ecological connectivity and networks were 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 were identified.

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

The SEA was informed by the findings of the AA (see Section 1.5) and follows 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 is placed on protected species outside of these designations such as bats, breeding birds, badgers etc. as well as all related species listed within the Flora (Protection) Order, 2022 (S.I. No. 235 of 2022) .

4.3.2 Key Issues Related to the LACAP

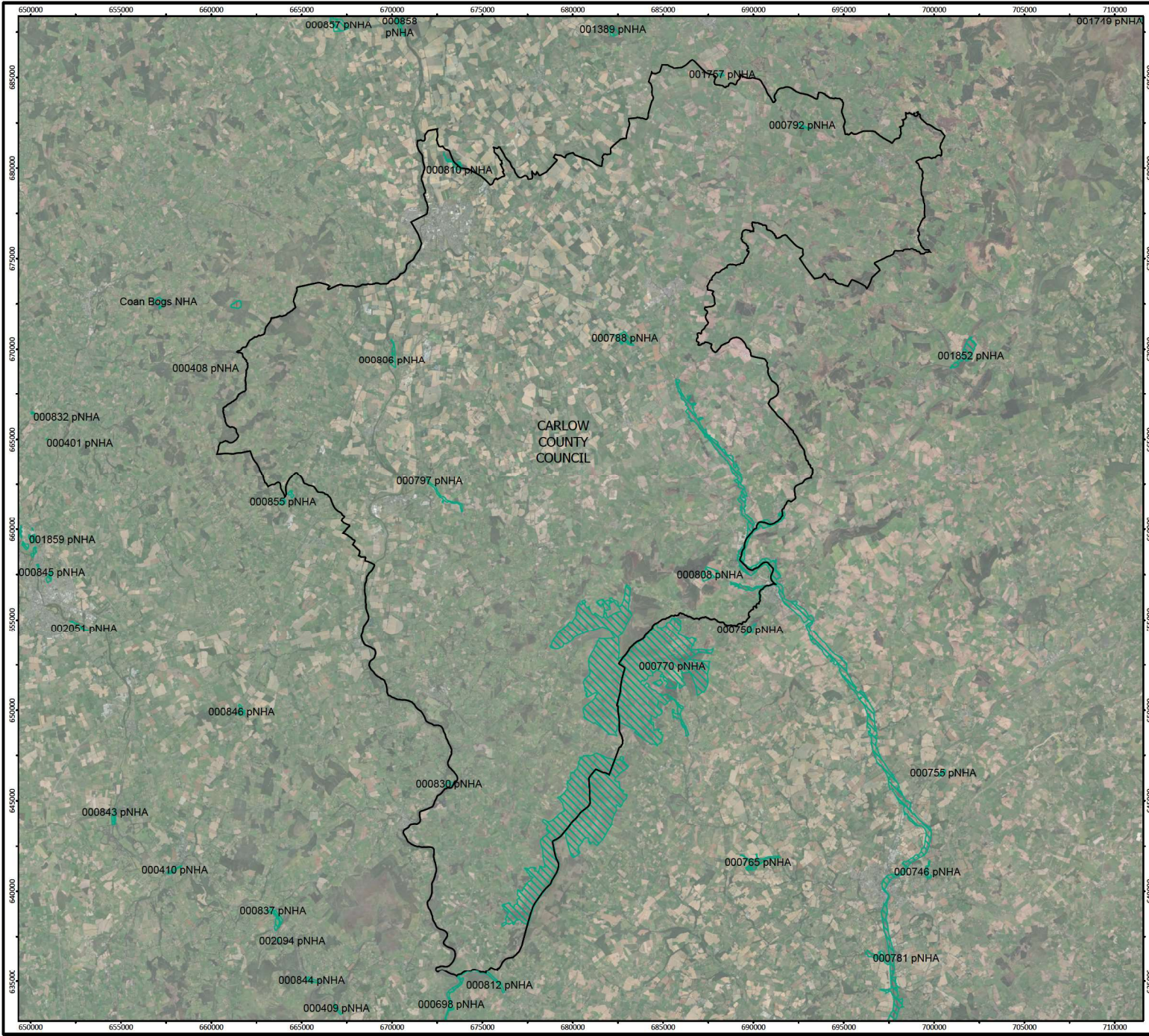
The key considerations in relation to Biodiversity, Flora and Fauna are as follows:

- Route selection and classification criteria are a key consideration in the development of blueways and greenways within the 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.

²⁸ [Nature Reserves in Ireland | National Parks & Wildlife Service \(npws.ie\)](https://www.npws.ie/)



-
- 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.
 - Potential for biodiversity enhancement.



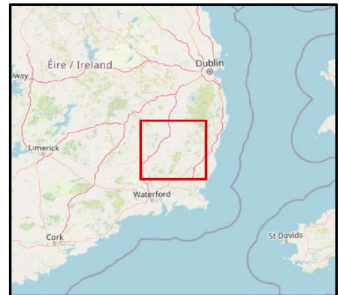
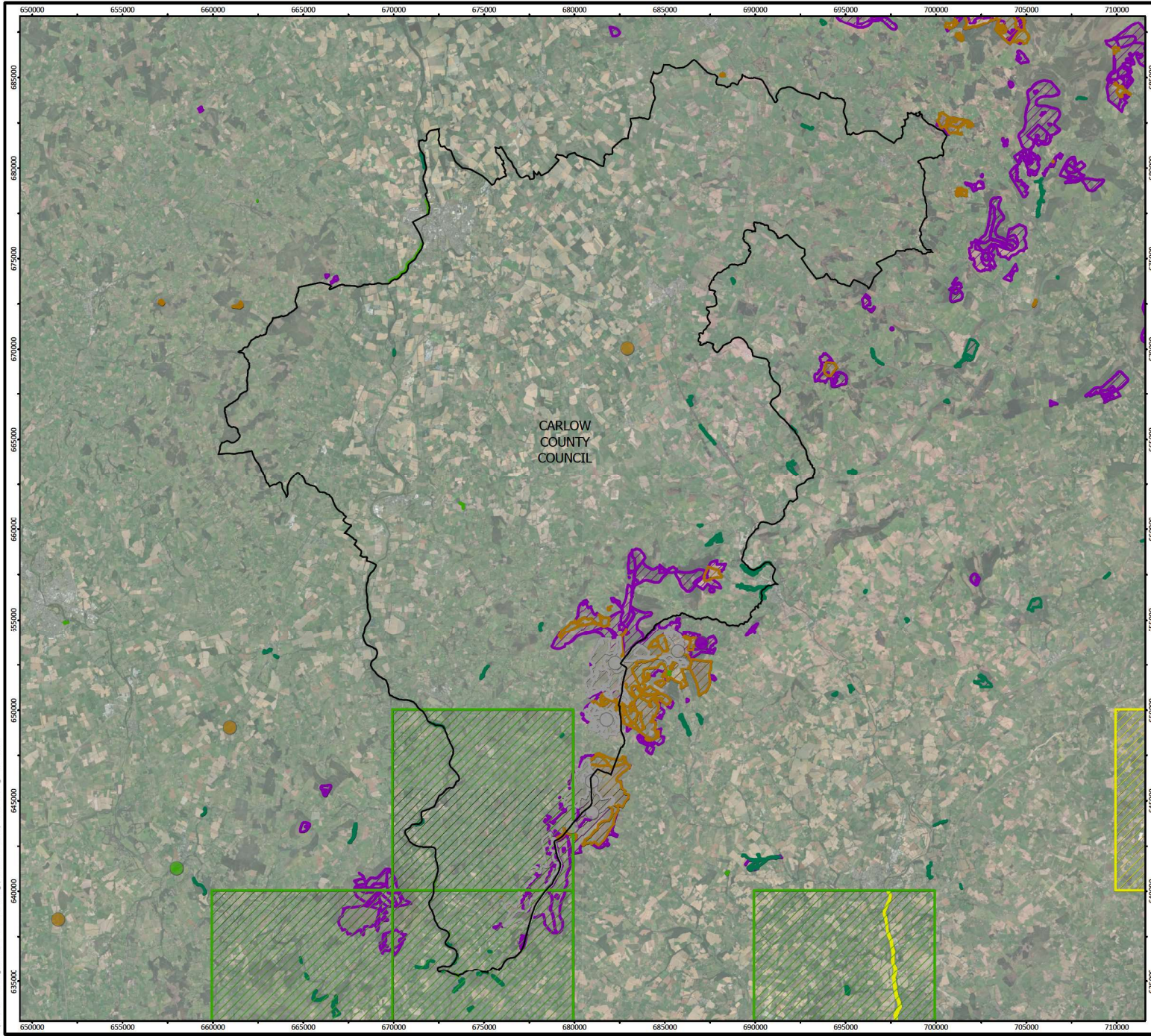
- Legend**
- Local Authority Boundaries
 - Natural Heritage Areas
 - Proposed Natural Heritage Areas

Natural Heritage Areas and proposed Natural Heritage Areas in Ireland	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.4
CLIENT:	CARLOW COUNTY COUNCIL
DATE:	15/08/2023
SCALE:	1:207,500 @ A3



Mapping reproduced under licence from the Ordnance Survey Ireland licence No. CVL022122980. Government of Ireland Creative Commons Attribution 4.0 International (CC BY 4.0) licence <https://creativecommons.org/licenses/by/4.0/>.
 OpenStreetMap (OSM) contributors (CC-BY-SA), Imagery © Mapbox

Mapping reproduced under licence from the Ordnance Survey Ireland Licence No. CV14L02216298D. Government of Ireland Creative Commons Attribution 4.0 International (CC BY 4.0) licence <https://creativecommons.org/licenses/by/4.0/>.
 OpenStreetMap (OSM) contributors, CC-BY-SA, Imagery © Mapbox, © OpenStreetMap (osm) contributors, CC-BY-SA, NPWS/Article 17 Habitats, National Parks and Wildlife Service of Ireland (NPWS), An Seirbhís Náisiúnta Naíonála agus Fíabhuilíní, Department of Housing, Local Government and Heritage, An Roinn Tibheochta, Rialaithe Ástail agus Oidhreacht



- Legend**
- Local Authority Boundaries
 - Article17HabitatsDetailedDistributionPointGDPR**
 - Bogs, Mires and Fens
 - Heath and Scrub
 - Rocky
 - Article17HabitatsDetailedDistributionPolygonGDPR**
 - Bogs, Mires and Fens
 - Coastal
 - Forests
 - Grasslands
 - Heath and Scrub
 - Rocky

Potential Habitat Sensitivities - Areas likely to contain Annex I habitats	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.5
CLIENT: CARLOW COUNTY COUNCIL	
DATE: 15/08/2023	SCALE: 1:207,500 @ A3





4.4 Landscape & Visual Amenity

4.4.1 Characterisation of the Environmental Baseline

Mount Leinster and the Blackstairs Mountains are situated to the east of the County, along the Wexford border. In the centre of the County, the central lowlands occupy a substantial portion of the County and hosts the County's major settlements. In the northern corner of the County, the central lowlands gradually shift into the River Slaney and the East Rolling Farmland landscape, while the Killeshin Hills lie to the west of the County and are bounded by the River Barrow and the R448.

The current Landscape Character Assessment²⁹ for Carlow divides the County into four Landscape Character Areas. In addition to this, Specific Views and Prospects for protection were identified. High Amenity Areas have also been identified in the County. These comprise of:

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

Environmental Features	Description
Landscape Character Areas (LCAs)	Blackstairs and Mount Leinster Uplands Central Lowlands River Slaney/East Rolling Farmland Killeshin Hills
High Amenity Areas	Broad River Valley Narrow River Valley Built Up Areas Farmed Lowlands Farmed Ridges Rolling Rough Grazing Uplands

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

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

- Carlow environmental sensitivity mapping
- The National Landscape Strategy for Ireland
- Tree Preservation Orders
- Forest cover/Indicative Forest Strategies³⁰
- County Development Plan
- County Landscape Character Assessments

²⁹ Carlow County Development Plan 2022-2028, *Chapter 9: Landscape and Green Infrastructure*.

³⁰ Department of Agriculture, Food and the Marine.



4.4.2 Key Issues Relating to the 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 - Archaeology & Architectural

4.5.1 Characterisation of the Environmental Baseline

Archaeological sites are legally protected³¹. The SEA Environmental Report has included information on the archaeological heritage of Carlow. One of the primary sources of information for known archaeological features is the Record of Monuments and Places (RMP)³². The RMP is an inventory of sites and areas of archaeological significance.

There are hundreds of Recorded Monuments within the Plan area. Clusters of monuments are concentrated within and adjacent to the existing built-up footprint of the County and in the rural areas. Enclosures, ringforts, churches, and graveyards are amongst the most common recorded monuments in the Plan area. There are 14 recorded monuments on the RMP in State Care in the Plan area. Five of these are in State Guardianship and nine are in State Ownership. The locations of the known archaeological sites will be detailed as required at the next stage of the SEA process.

This section of the SEA Environmental Report has also included information on the architectural heritage of Carlow including that relating to designations such as the Record of Protected Structures (RPS). Local authorities compile and maintain the RPSs³³; these RPSs are listed in the County Development Plans but are not available in digital map format for some County Councils. There are hundreds of entries to the Record of Protected Structures within the Plan area³⁴, which include many notable buildings in the County such as: Huntingdon Castle; Cathedral of the Assumption; Bagenalstown Courthouse; Dunleckney Manor; and Mount Leinster Lodge.

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)³⁵. 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 heritage³⁶.

³¹ National Monuments Acts 1930 (as amended), the National Cultural Institutions Act 1997 (as amended) and the Planning and Development Act 2000 (as amended).

³² 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)

³³ Under Section 51 of the Planning & Development Act 2000 (as amended).

³⁴ *Carlow County Development Plan 2022-2028 Appendix 8 Record of Protected Structures.*

³⁵ 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/datasets/national-inventory-of-architectural-heritage-niah-national-dataset)

³⁶ Department of Housing, Local Government and Heritage. 2015. Advice to the Public on Ireland's Underwater Archaeological Heritage.



The Department of Housing, Local Government and Heritage has developed the Heritage Ireland 2030³⁷ plan, published in February 2022, serving the purpose of informing 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 eight ACAs designated within the Plan area, including: Dublin Street ACA; Granby Row ACA; Little Barrack Street ACA; Brown Street ACA; Maryborough Street ACA; College Street ACA; and Borris ACA.

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 Affairs³⁸ (including underwater archaeology such as wreck data³⁹).
- National Monuments Service (including the Underwater Unit).
- Built Heritage and Architectural Policy Section (the NIAH)⁴⁰.
- County Development Plan.
- Heritage Council.
- United Nations Educational, Scientific, and Cultural Organisation (UNESCO).

4.5.2 Key Issues Relating to the LACAP

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

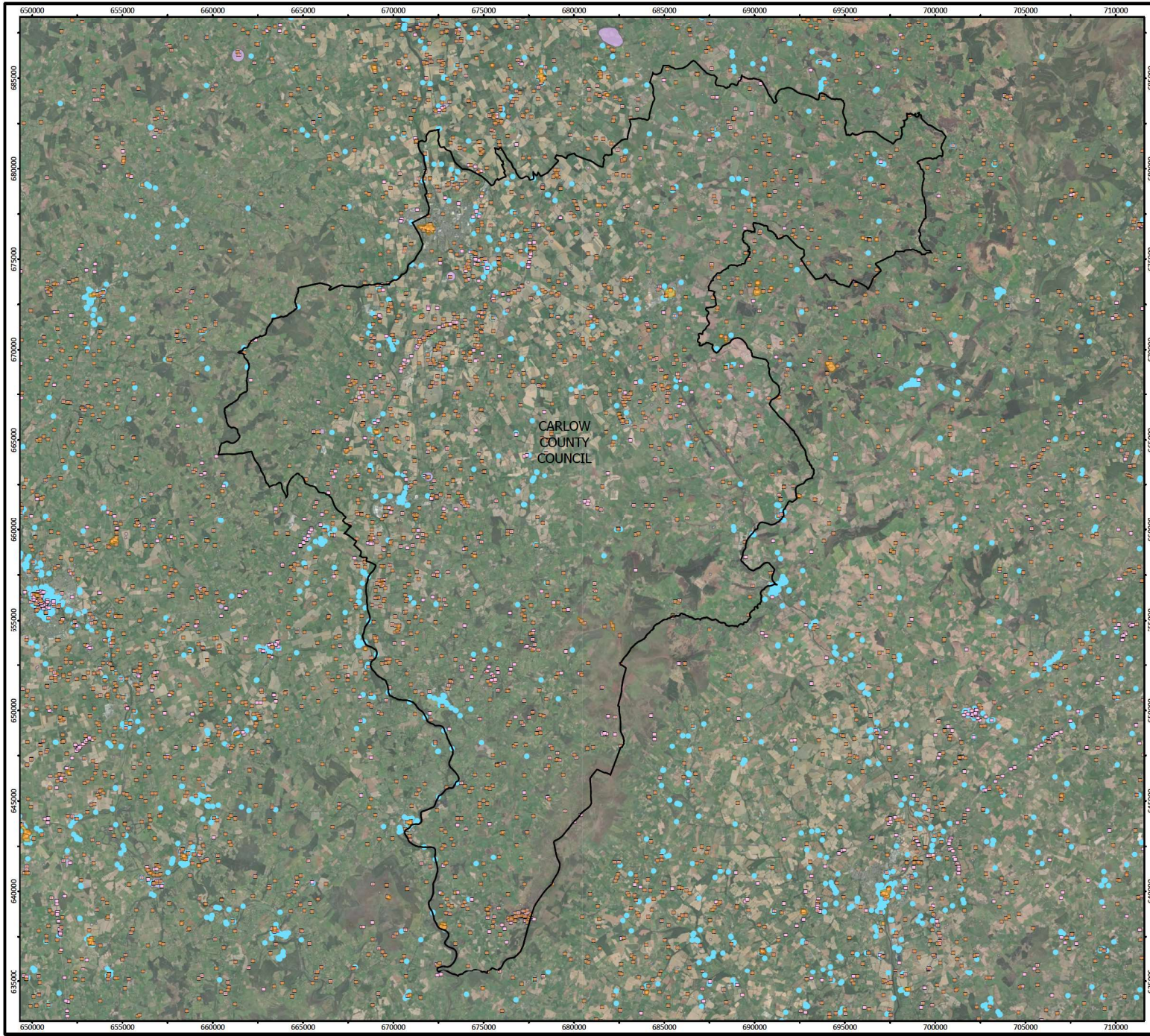
- The potential impact of the development of green infrastructure on archaeological and architectural heritage.
- No existing conflicts with legislative objectives governing archaeological and architectural heritage were identified.

³⁷ Available at [Heritage Ireland 2030 | gov.ie/housing \(www.gov.ie\)](https://www.gov.ie/housing)

³⁸ Department of Arts, Heritage and the Gaeltacht.

³⁹ Available at [Wreck Viewer | National Monuments Service \(archaeology.ie\)](https://www.archaeology.ie)

⁴⁰ Data available at [National Inventory of Architectural Heritage \(NIAH\) National Dataset - Datasets - data.gov.ie](https://data.gov.ie)



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

Credits:
 © OpenStreetMap (and) contributors, CC-BY-SA, Earthstar Geographics, Copyright Government of Ireland. The content of this application is owned and operated by National Monuments Service, Department of Arts, Heritage and the Gaeltacht. This copyright material is licensed for re-use under the Creative Commons Attribution 4.0 International licence. The permission to reproduce Government copyright material does not extend to any material on this site which may be the property of a third party. Authorization to reproduce such material (e.g., OS mapping) must be obtained from the copyright holders concerned. Basemaps used in this site are copyright Ordnance Survey Ireland (Licence No EN 0059216) and DigitalGlobe, Inc. All Rights Reserved.

Archaeological Heritage and National Monuments Map

CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.6
CLIENT: CARLOW COUNTY COUNCIL	
DATE: 15/08/2023	SCALE: 1:207,500 @ A3





4.6 Soils

4.6.1 Characterisation of the Environmental Baseline

The types of soils found covering the County⁴¹ include the following:

Table 4-4: Soil Types Covering the County

Soil Type	Description
Dominant Soils	
Luvisols	Luvisol soils are generally fertile, widely used for agriculture and associated with significant accumulation of clay. These can be found mainly in the central plains of the County.
Brown Earth	Brown Earths are well drained soils possessing rather uniform profiles with little differentiation between horizons. These are located mainly along the perimeter of the central plains.
Other Soils	
Peat Soils	Peatlands are unique systems comprising of peat soil providing 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. These are found mainly in the upland locations in the east and south-east of the County.
Alluvial soils	Alluvial soils are formed in deposits of river, lake, estuarine or marine alluvium. The majority of soils described are associated with recent rivers and streams. These are located alongside rivers and streams within the County.
Podzols	Podzols are generally associated with acid parent material and semi-natural heath or coarse grassland vegetation and coniferous woodland. This soil type is found mainly in the south east of the County, near the Wexford border.
Surface water gleys	Surface water gleys are poorly drained, slowly permeable sub-surface horizon. This soil type is found in the western area of the County.

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 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) and minerotrophic (groundwater-fed) peat soils were identified in the east and south-east of the County.

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

In 2004, an audit of County Geological Sites was completed and identified six County Geological Sites⁴². Previous Landslide Events and Landslide Susceptibility Mapping sources will be considered by the SEA.

⁴¹ Teagasc.ie. General Soil Map.

⁴² Geological Survey of Ireland (2004) The Geological Heritage of Carlow.



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

- Geological Survey Ireland (GIS)
- Teagasc
- Infomar⁴³
- 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.

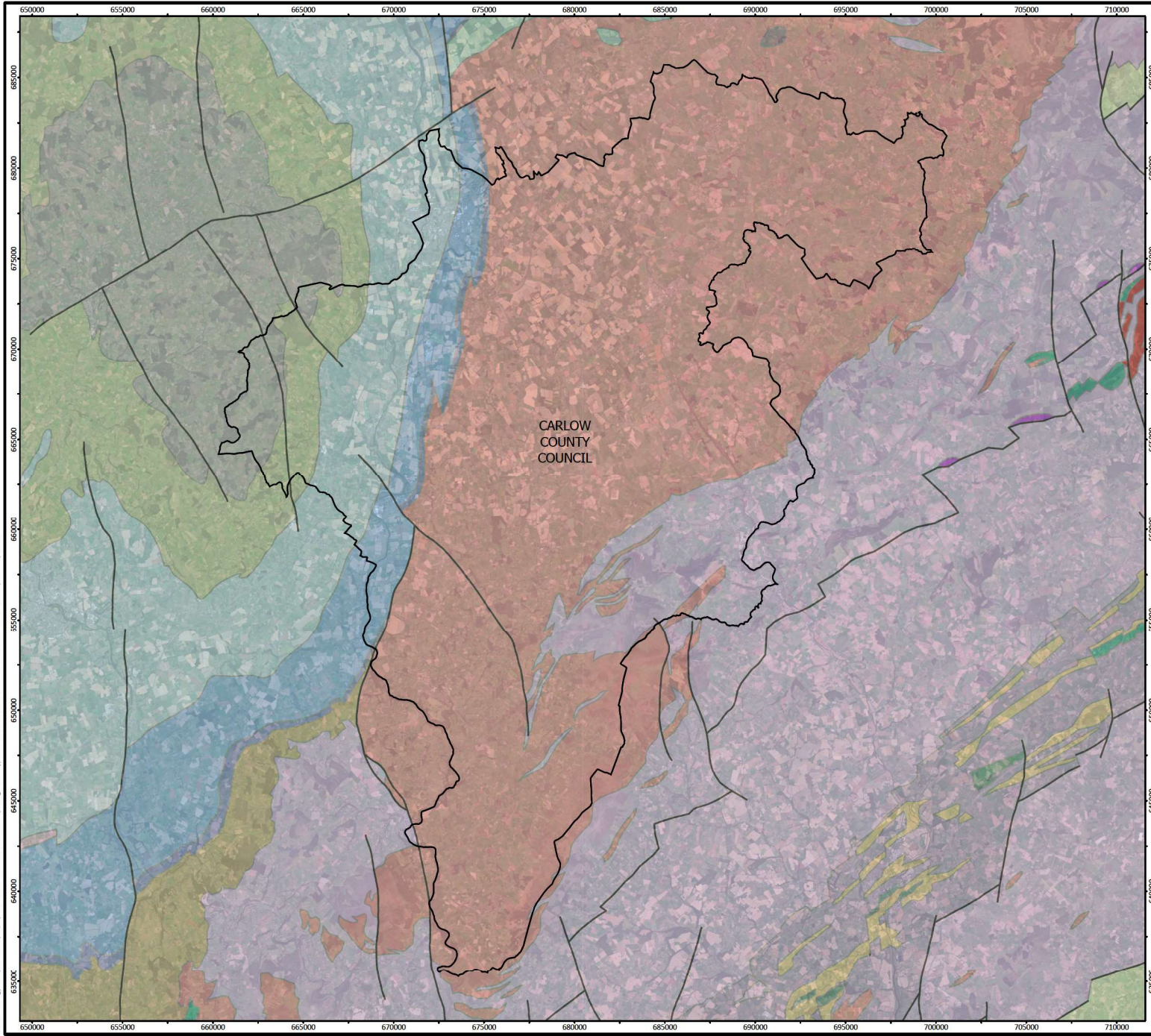
4.6.2 Key Issues Relating to the LACAP

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.

⁴³ Seabed and Sediment Data | Infomar

Mapping Reproduced Under Licence from the Ordnance Survey Ireland Licence No. CVAL02167860 Government of Ireland/Creative and Commons Attribution 4.0 International (CC BY 4.0) licence <https://www.nsw.com.au/licenses/by/4.0/>.
 World Imagery: Bingbird Geographics
 Bedrock Geology: 1:500,000 Ireland (RO/N) TM. Contains Irish Public Sector Data (Geological Survey) licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) licence.



CARLOW
COUNTY
COUNCIL



- Legend**
- Local Authority Boundaries
 - Bedrock Geology 500k (RO/N)**
 - 2, Serpentine, Neoproterozoic (NE Ox Mts) & Lower Ordovician (Clew Bay, Carnew)
 - 8, Granite, granodiorite
 - 35, Deep marine; Slate, schist & minor greywacke
 - 37, Basalt - andesite, tuff, slate & mudstone
 - 38, Rhyolite, rhyolitic tuff & slate
 - 39, Deep marine; Slate, shale, minor sandstone & siltstone
 - 49, Deep marine turbidite sequence; Mudstone, greywacke & conglomerate
 - 54, Continental redbed facies; Sandstone, conglomerate & siltstone (in places extends into the Carboniferous)
 - 58, Shallow marine ("Lower Limestone Shale"); Shale, sandstone & thin limestone
 - 61, Marine shelf & ramp facies; Argillaceous dark-grey bioclastic limestone, subsidiary shale
 - 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	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.7
CLIENT: CARLOW COUNTY COUNCIL	
DATE: 15/08/2023	SCALE: 1:207,500 @ A3



Mapping reproduced under licence from the Ordnance Survey Ireland Licence No. CVAL0222282960. Government of Ireland Creative Commons Attribution 4.0 International (CC BY 4.0). Licence https://creativecommons.org/licenses/by/4.0/.
 OpenStreetMap (map) © OpenStreetMap contributors, CC BY-SA



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

Geological Heritage Sites	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.8
CLIENT: CARLOW COUNTY COUNCIL	
DATE: 15/08/2023	SCALE: 1:207,500 @ A3

Cork | Dublin | Carlow
www.fehilytimoney.ie



4.7 Land Use

4.7.1 Characterisation of the Environmental Baseline

Information on land use in Carlow can be obtained from the CORINE Land Cover (CLC) inventory. 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 NPWS⁴⁴.

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

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

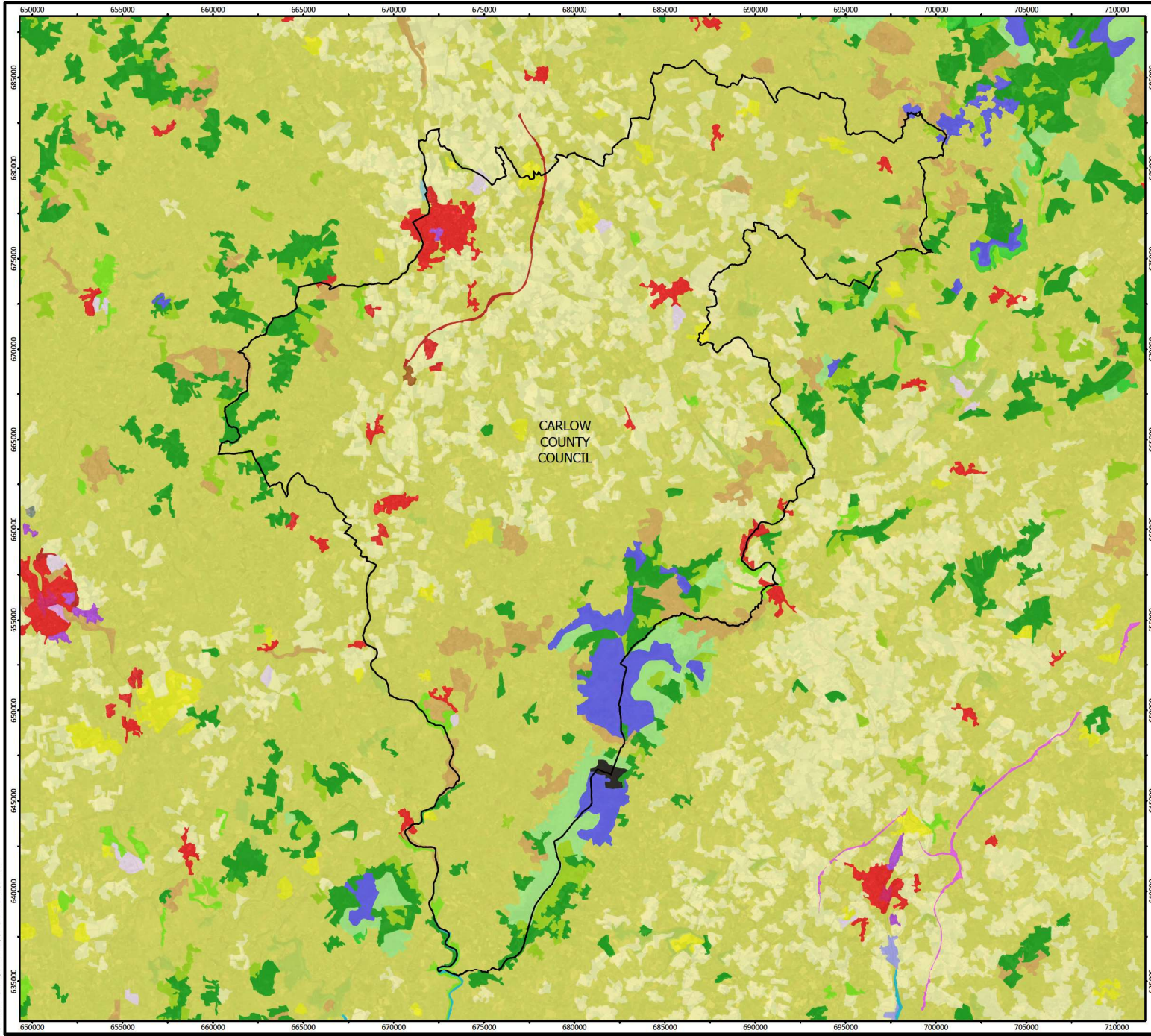
4.7.2 Key Issues Relating to the LACAP

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

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

⁴⁴ 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.

Mapping reproduced under licence from the Ordnance Survey Ireland License No. C014502218296D. Government of Ireland Creative Commons Attribution 4.0 International (CC BY 4.0) licence <https://creativecommons.org/licenses/by/4.0/>.
 OpenStreetMap (© OpenStreetMap contributors), CC BY-SA



- 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
 - 131 Mineral extraction sites
 - 132 Dump
 - 133 Construction sites
 - 141 Green urban sites
 - 142 Sport and leisure facilities
 - 211 Non-irrigated land
 - 231 Pastures
 - 242 Complex cultivation patterns
 - 243 Land principally occupied by agriculture with areas of natural vegetation
 - 311 Broad-leaved forest
 - 312 Coniferous forest
 - 313 Mixed forest
 - 321 Natural grassland
 - 322 Moors and heaths
 - 324 Transitional woodland scrub
 - 334 Burnt areas
 - 411 Inland marshes
 - 412 Peat bogs
 - 511 Stream courses
 - 512 Water bodies

Land Use (CORINE)	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.9
CLIENT: CARLOW COUNTY COUNCIL	
DATE: 15/08/2023	SCALE: 1:207,500 @ A3

Cork | Dublin | Carlow
www.fehilytimoney.ie



4.8 Air Quality & Noise

4.8.1 Characterisation of the Environmental Baseline

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) guidelines⁴⁵.

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). Carlow Town is defined as 'Zone C', while its surrounding rural areas are defined as 'Zone D'. The current air quality in Carlow is identified by the EPA as being of Good⁴⁶ status.

The EEA⁴⁷ 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 noise⁴⁸. 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 were considered throughout the SEA and AA processes in the development of the LACAP.

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

- EPA
- WHO

⁴⁵ World Health Organization. 2021.WHO global air quality guidelines: particulate matter (PM2.5 and PM10), ozone, nitrogen dioxide, sulphur dioxide and carbon monoxide. World Health Organization. <https://apps.who.int/iris/handle/10665/345329>. License: CC BY-NC-SA 3.0 IGO

⁴⁶ EPA AirQuality.ie - 02/06/2023

⁴⁷ EEA. 2022. Noise Data Briefing. Available at: Noise — European Environment Agency (europa.eu).

⁴⁸ This was transposed into Irish national legislation via the Environmental Noise Regulations (S. I. No. 140 of 2006).

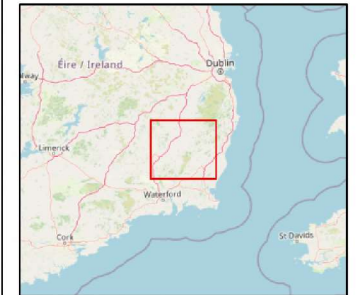


4.8.2 Key Issues Relating to the LACAP

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

Mapping reproduced under license from the Ordnance Survey Ireland License No. CVAL2023.8290. Government of Ireland. Creative Commons Attribution 4.0 International (CC BY 4.0) license <https://creativecommons.org/licenses/by/4.0/>.
 Geoserver Web Map Service
 OpenStreetMap © OpenStreetMap [url] contributors, CC BY SA



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

Noise Mapping Lden (Day, Evening, Night; a measurement over 24 hours)	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.10
CLIENT: CARLOW COUNTY COUNCIL	
DATE: 29/08/2023	SCALE: 1:207,500 @ A3





4.9 Water

4.9.1 Characterisation of the Environmental Baseline

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 LACAP.

Water quality data is collected by the EPA⁴⁹. The County is largely situated within the Barrow and Slaney and Wexford Harbour catchments, with a small area in the north-west of the County situated partially within the Nore catchment. The River Barrow and the River Slaney are the main rivers in the catchment.

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 Carlow is generally identified as being of Good status. There is a stretch of Poor groundwater status ranging from Muine Bheag to Carlow town, and beyond the County border to Athy.

The WFD status of rivers and streams (2016-2021) draining Carlow ranges from high (sections of rivers and streams, including the Clody), to good (sections of rivers and streams, including the Slaney, the Barrow, the Burren, and the Aughavaud), to moderate (sections of rivers and streams including: the Slaney, the Pollmounty, Palatine Stream, the Barrow, and the Aghalona) and to poor (sections of rivers and streams including: the Douglas, the Barrow, Ballynaboley Stream, and Ballaghmore Distributary). The WFD surface water status (2016-2021) of rivers within and surrounding Carlow Town is identified as 'moderate'.

In addition, there are a number of unassigned lakes across the County.

Pressures on waterbodies that are failing to meet the WFD's overall objective of 'good' status were identified by the SEA and policy responses were 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, pluvial and fluvial. There are various historic and predictive indicators of flood risk in the County, including along the Rivers Barrow and Slaney.

The OPW is the lead agency tasked with the management of flood risk in the ROI. 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. Three locations in the County were identified by the OPW in 2012 as requiring detailed assessment of flood risk (Areas for Further Assessment): Leighlinbridge; Tullow and Carlow. Detailed predictive flood risk mapping is now available for these areas from the OPW⁵⁰.

⁴⁹ [EPA Maps](#). Water.

⁵⁰ OPW (2022) Flood risk maps and data platform – Available at <https://www.floodinfo.ie/map/floodmaps/>



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 has utilised information from the following sources:

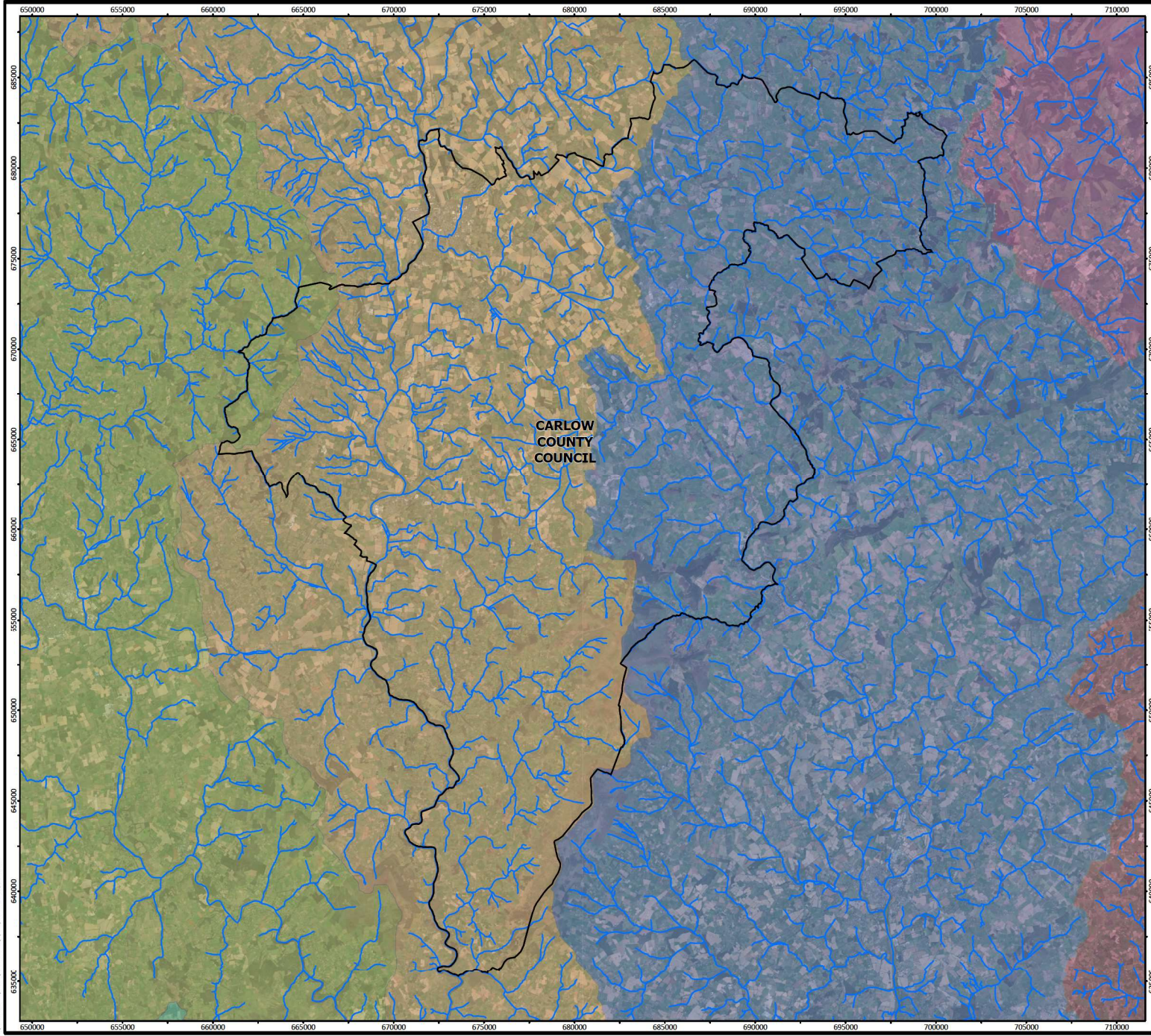
- EPA - WFD Data.
- GSI data on groundwaters, aquifers and bedrock information.
- Catchment Flood Risk Assessment and Management (CFRAM) Study and associated FRMPs (OPW, as reviewed 2022).
- Flood Risk Assessment (FRA) Mapping (OPW).

4.9.2 Key Issues Relating to the LACAP

The key issues in relation to Water are as follows:

- 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.

Mapping Reproduced Under Licence from the Ordnance Survey Ireland Licence No. CVL02222298D. Government of Ireland Creative Commons Attribution 4.0 International (CC BY 4.0) licence <https://creativecommons.org/licenses/by/4.0/>.
OpenStreetMap (map) contributors, CC BY-SA



Legend

- Local Authority Boundaries
- Rivers

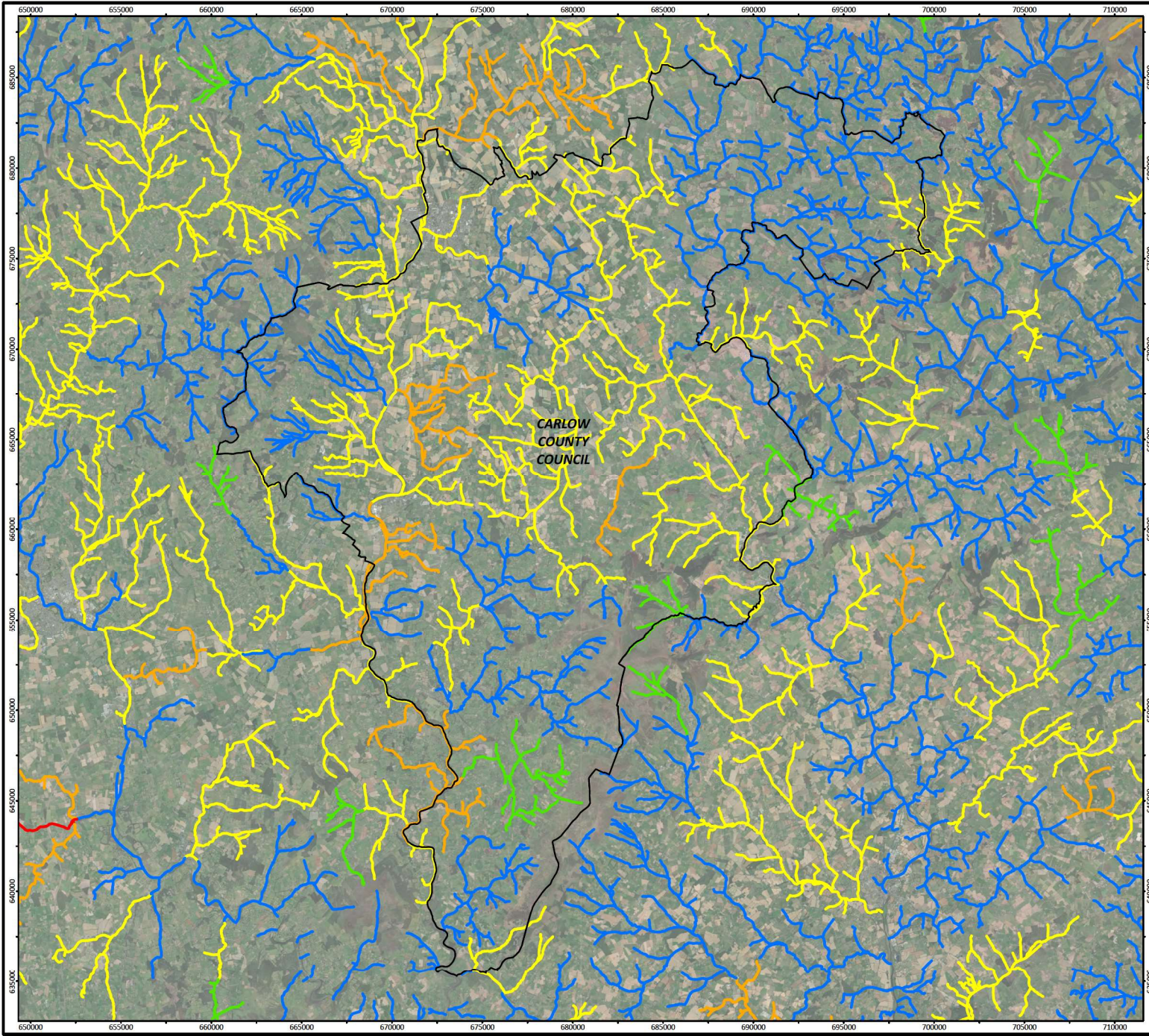
WFD Catchments

Catchment Name

- Barrow
- Nore
- Ovoca-Vartry
- Owenavorrhagh
- Slaney & Wexford Harbour
- Suir

Hydrology	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.11
CLIENT: CARLOW COUNTY COUNCIL	
DATE: 15/08/2023	SCALE: 1:207,500 @ A3

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



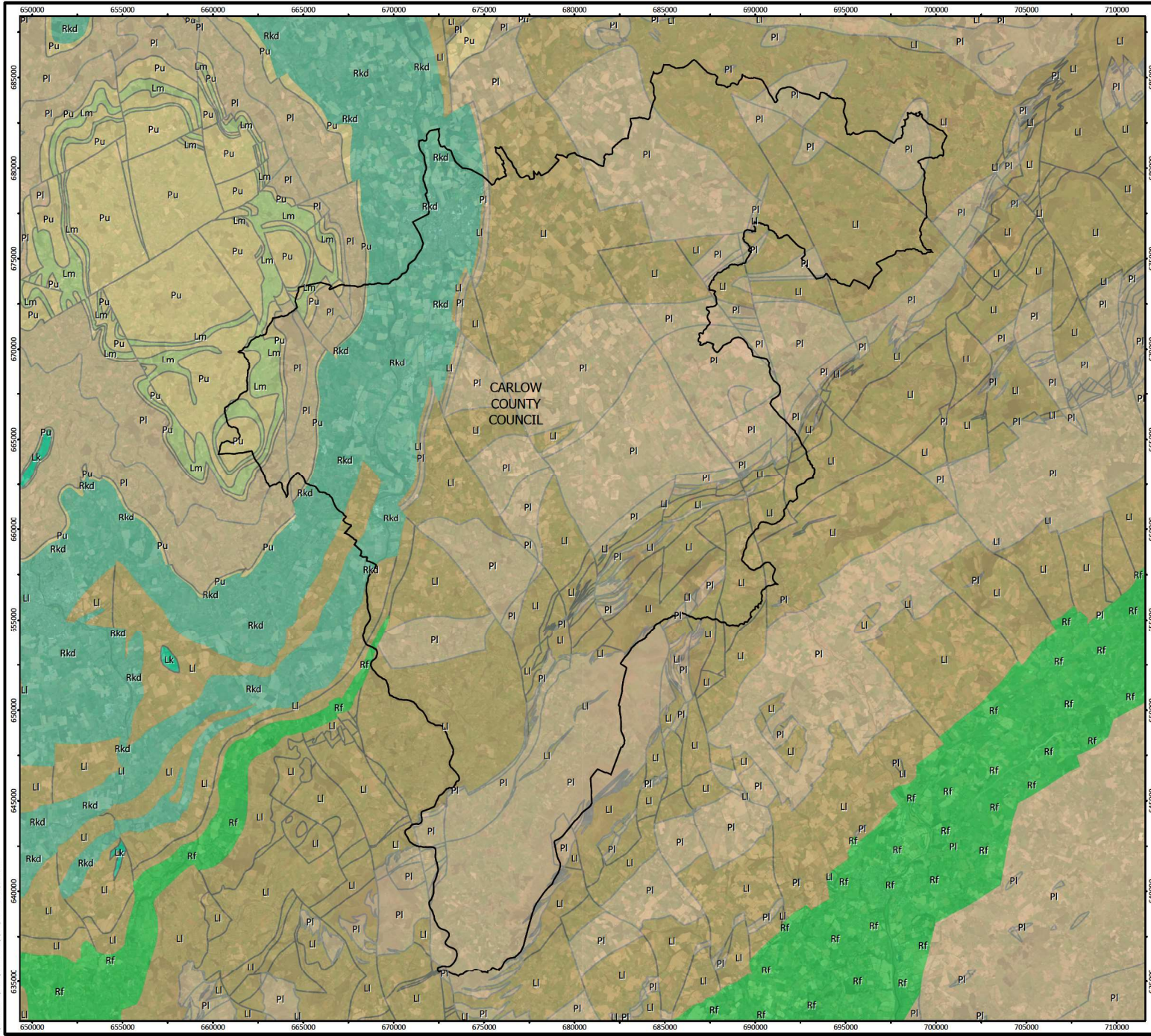
- Legend**
- Local Authority Boundaries
 - WFD Lake Segments
 - EPA Rivers - WFD Status 2016 - 2021**
 - Bad
 - Poor
 - Moderate
 - Good
 - High
 - Unassigned

WFD Surface Water Status	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.12
CLIENT: CARLOW COUNTY COUNCIL	
DATE: 15/08/2023	SCALE: 1:207,500 @ A3



Mapping reproduced under licence from the Ordnance Survey Ireland Licence No. C01L02218298D. Government of Ireland Creative Commons Attribution 4.0 International (CC BY 4.0). Licence https://creativecommons.org/licenses/by/4.0/.
 OpenStreetMap (© OpenStreetMap contributors), CC BY-SA
 Path: c:\Map Production\2023\19-23-078\Workspaces\SEA\SEA_ER_Fig_4-12_WFD Surface Water Status.aprx

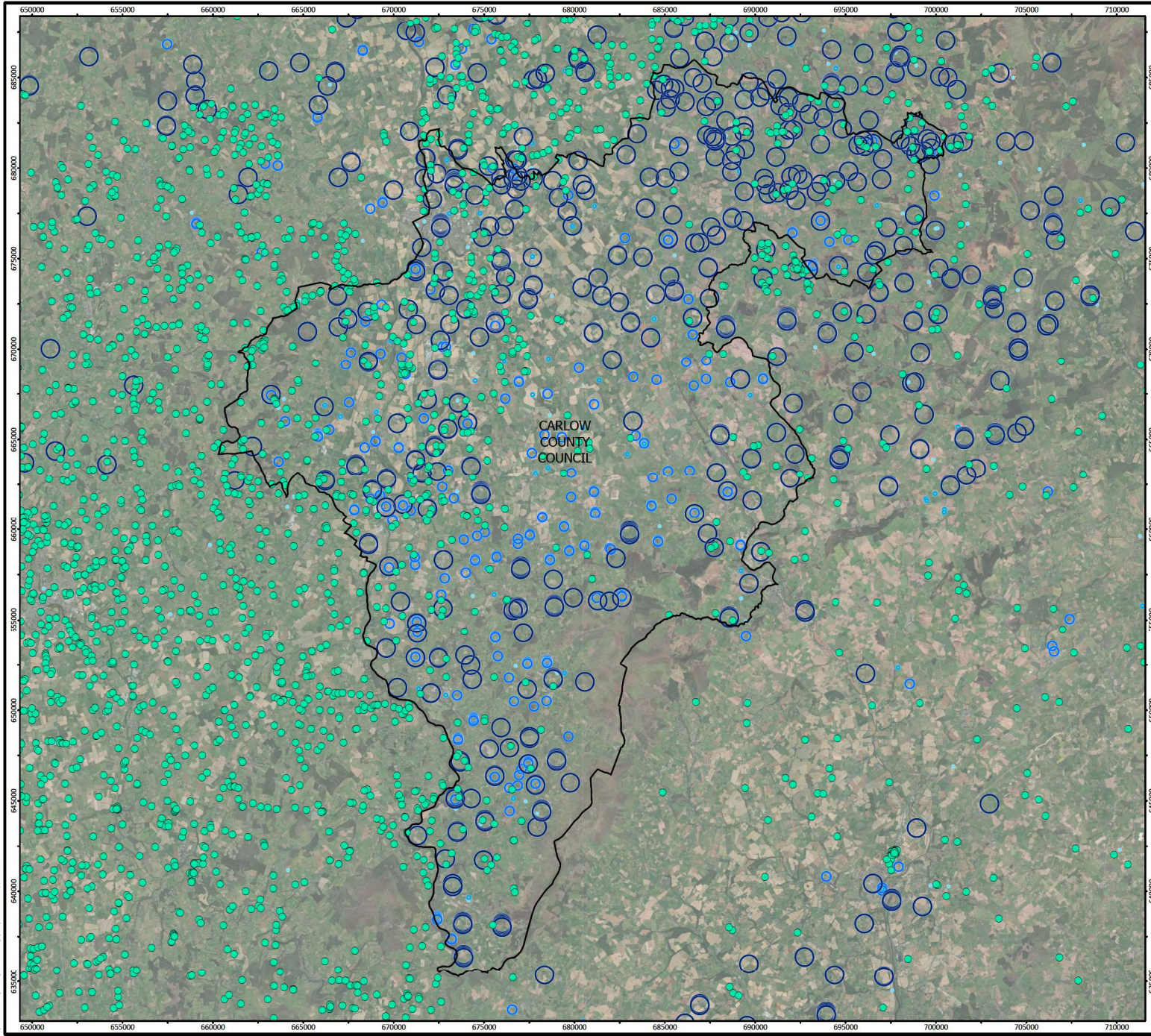
Mapping reproduced under licence from the Ordnance Survey Ireland License No. CVAL02212976D. Government of Ireland Creative Commons Attribution 4.0 International (CC BY 4.0) licence https://creativecommons.org/licenses/by/4.0/.
 OpenStreetMap (OSM) contributors (and) contributors, CC BY-SA



- Legend**
- Local Authority Boundaries
- Bedrock Aquifers**
- Lk: Locally Important Aquifer - Karstified
 - L: 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
 - Rkd: Regionally Important Aquifer - Karstified (diffuse)

Aquifer Classification	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.13
CLIENT:	CARLOW COUNTY COUNCIL
DATE: 15/08/2023	SCALE: 1:207,500 @ A3

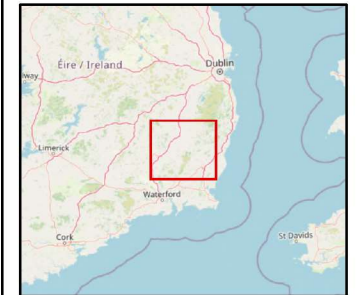
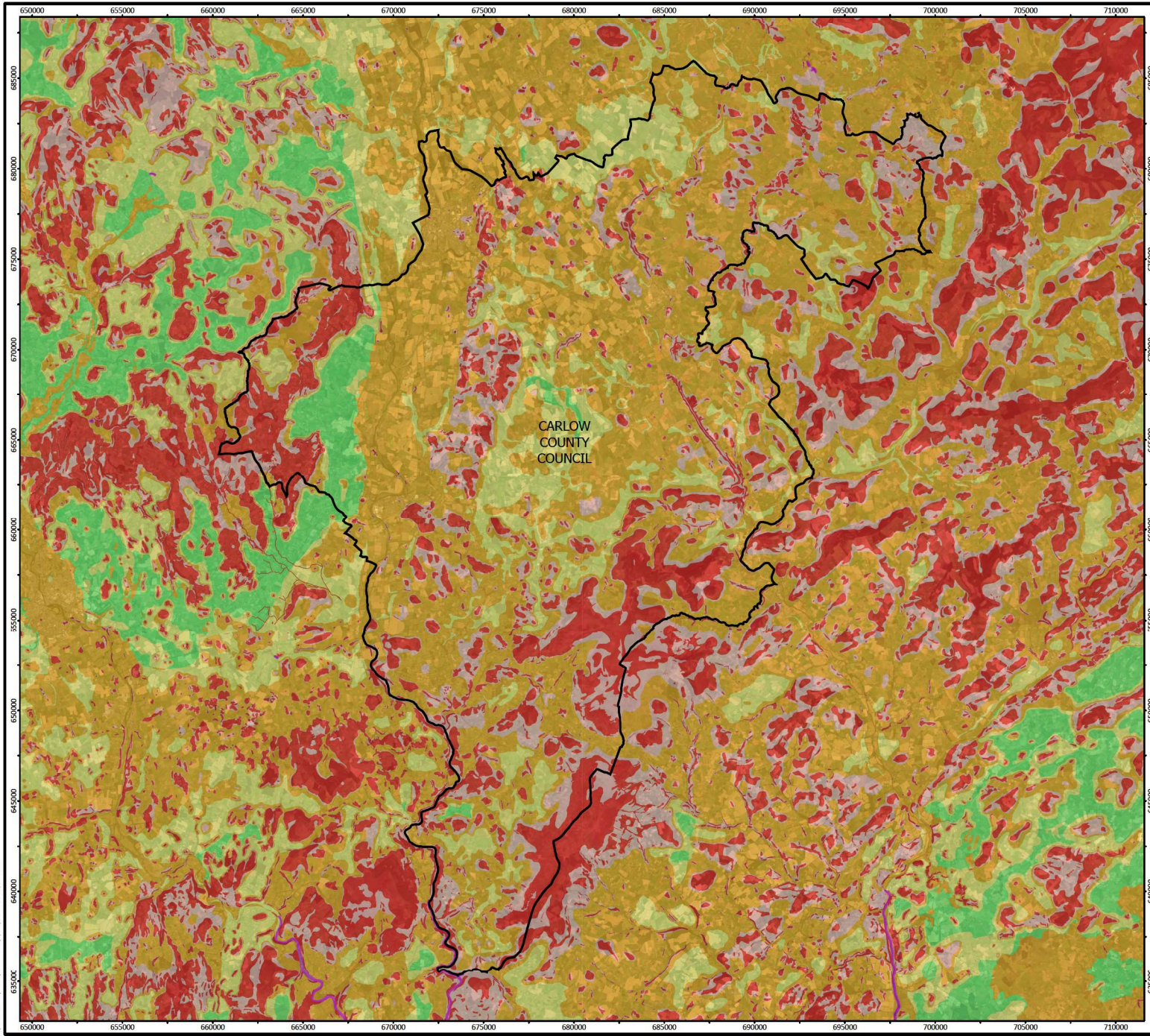




- Legend**
- Local Authority Boundaries
 - Wells and Springs (10-50m Accuracy)
 - Wells and Springs (50-100m Accuracy)
 - Wells and Springs (100-200m Accuracy)
 - Wells and Springs (200-500m Accuracy)
 - Wells and Springs (500m-1km Accuracy)

Wells and Springs	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.14
CLIENT: CARLOW COUNTY COUNCIL	
DATE: 15/08/2023	SCALE: 1:207,500 @ A3





Legend

- Local Authority Boundaries

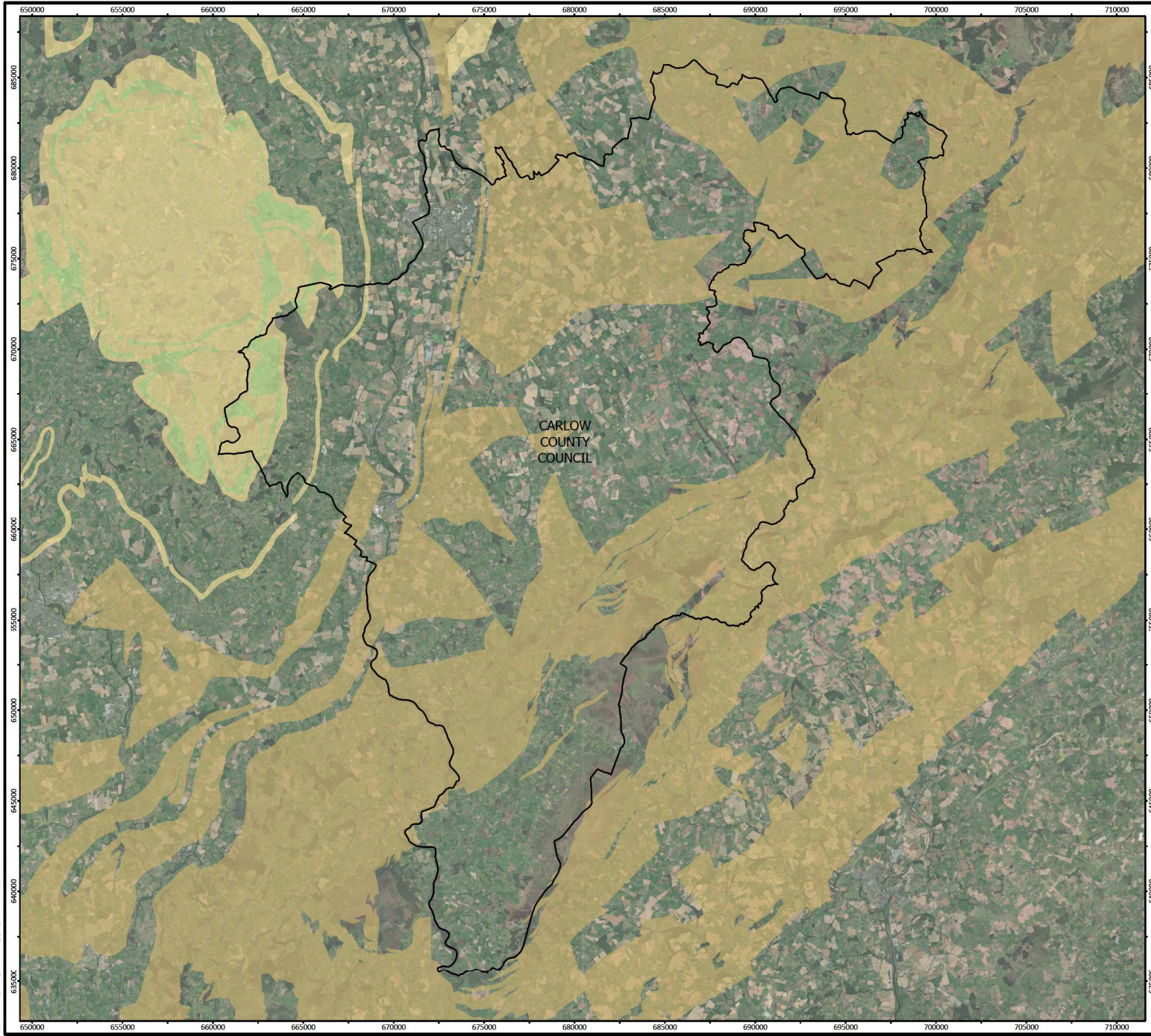
Groundwater Vulnerability

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

Groundwater Vulnerability	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.15
CLIENT: CARLOW COUNTY COUNCIL	
DATE: 15/08/2023	SCALE: 1:207,500 @ A3

Cork | Dublin | Carlow
www.fehilytimoney.ie

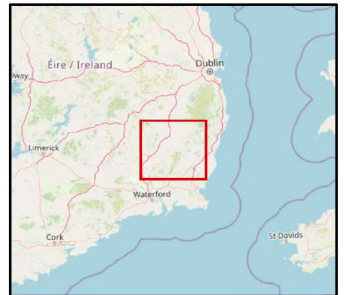
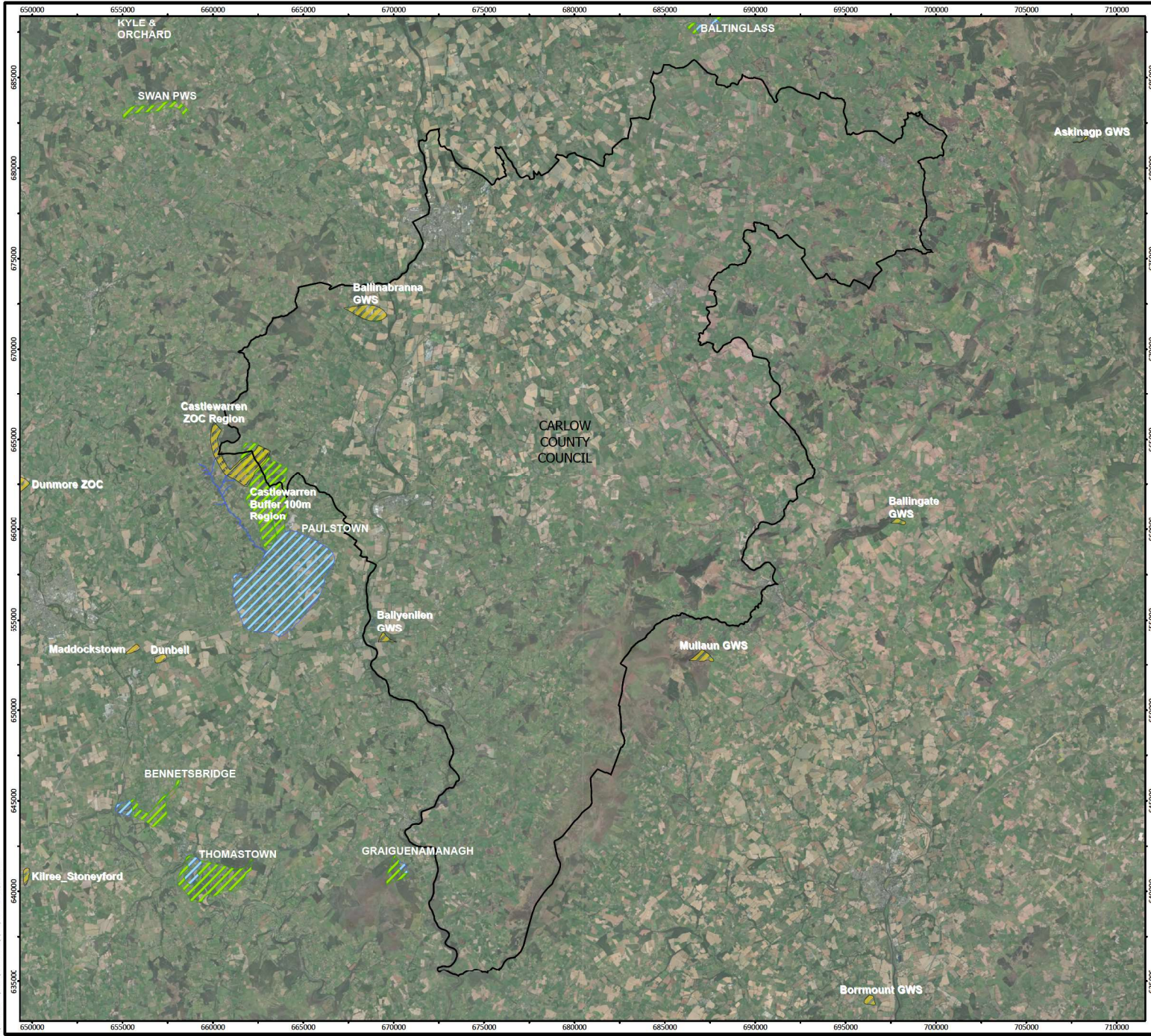
Mapping Reproduced Under Licence from the Ordnance Survey Ireland Licence No. CVL020220296D. Government of Ireland Creative Commons Attribution 4.0 International (CC BY 4.0). Licence https://creativecommons.org/licenses/by/4.0/.
OpenStreetMap (OSM) contributors (cc) contributors, CC BY-SA



- Legend**
- Local Authority Boundaries
 - Bedrock Aquifers**
 - Ll: Locally Important Aquifer - Bedrock Productive Locally
 - Lm: Locally Important Aquifer - Bedrock Generally Mod Productive
 - Pu: Poor Aquifer Bedrock Generally Unproductive

Groundwater Productivity	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.16
CLIENT: CARLOW COUNTY COUNCIL	
DATE: 15/08/2023	SCALE: 1:207,500 @ A3

Cork | Dublin | Carlow
www.fehilytimoney.ie



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	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.17
CLIENT: CARLOW COUNTY COUNCIL	
DATE: 15/08/2023	SCALE: 1:207,500 @ A3

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

Mapping reproduced under licence from the Ordnance Survey Ireland licence No. CVL022222980. Government of Ireland Creative Commons Attribution 4.0 International (CC BY 4.0) licence https://creativecommons.org/licenses/by/4.0/.
 OpenStreetMap (OS) contributors, CC-BY-SA, Imagery © Mapbox, © OpenStreetMap contributors, CC-BY-SA, Imagery © Mapbox

Mapping reproduced under licence from the Ordnance Survey Ireland Licence No. CVL022222980. Government of Ireland Creative Commons Attribution 4.0 International (CC BY 4.0) licence <https://creativecommons.org/licenses/by/4.0/>.
OpenStreetMap (OSM) contributors (CC BY-SA)

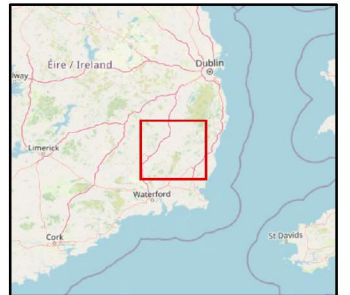
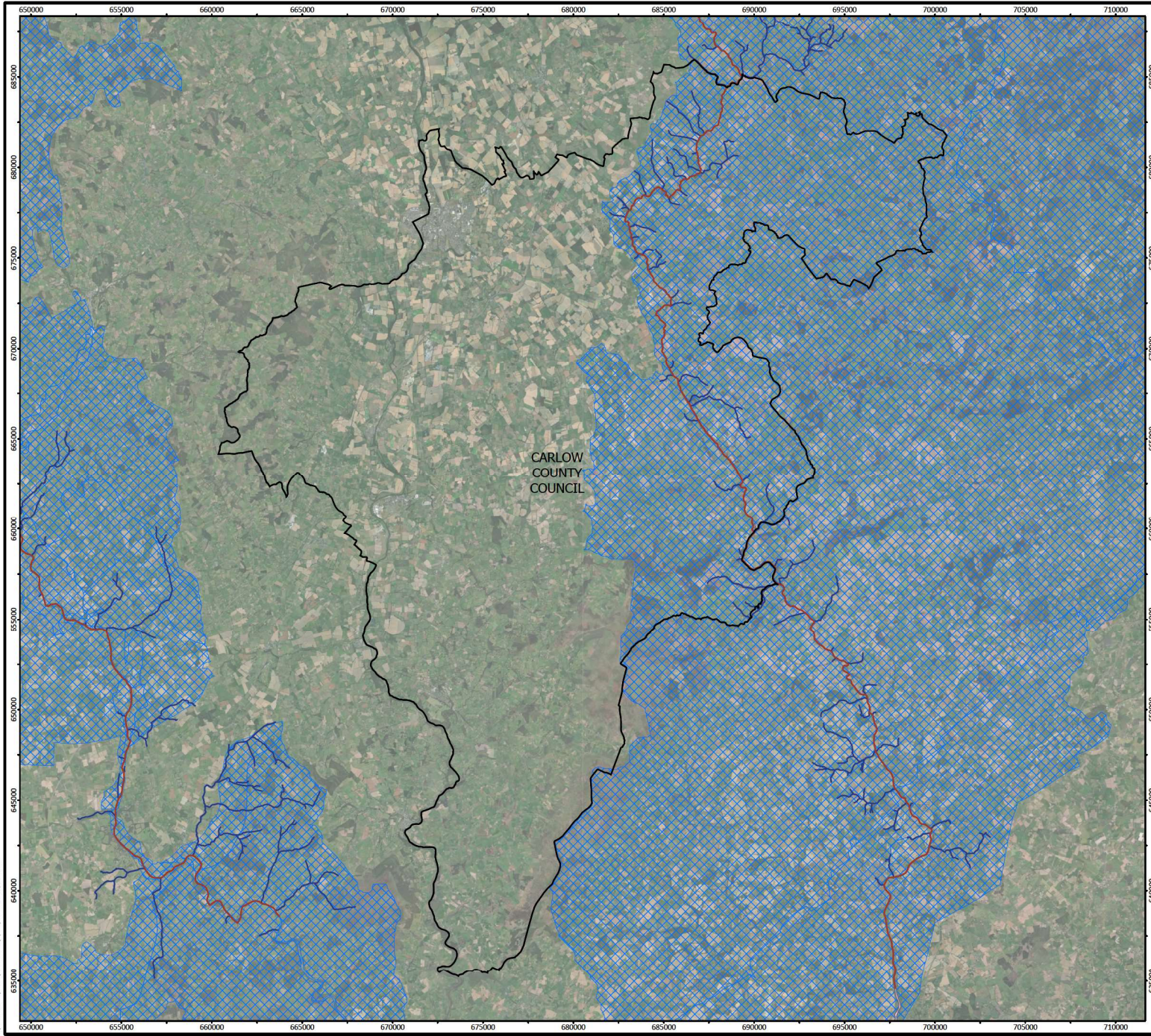


- Legend
- Local Authority Boundaries
 - WFD Bathing Water Areas Polygon Features - graphic representation of beach only
 - WFD Surface Water Polygons that intersect with BATH_BathingLocations Point Feature dataset
 - Designated Bathing Water Locations Point Features (Officially Designated Beach)

WFD Register of Protected Areas - Bathing Water Areas	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.18a
CLIENT: CARLOW COUNTY COUNCIL	
DATE: 16/08/2023	SCALE: 1:207,500 @ A3



Mapping Reproduced Under Licence from the Ordnance Survey Ireland License No. CV15L02218296D. Government of Ireland Creative Commons Attribution 4.0 International (CC BY 4.0). Licence <https://creativecommons.org/licenses/by/4.0/>.
 OpenStreetMap (map) contributors, CC BY-SA



- 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	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.18b
CLIENT:	CARLOW COUNTY COUNCIL
DATE:	16/08/2023
SCALE:	1:207,500 @ A3



Mapping reproduced under licence from the Ordnance Survey Ireland Licence No. CVL02222298D. Government of Ireland Creative Commons Attribution 4.0 International (CC BY 4.0) licence <https://creativecommons.org/licenses/by/4.0/>.
OpenStreetMap (OSM) contributors (CC BY-SA)



- Legend
- Local Authority Boundaries
 - WFD Groundwater Bodies that intersect with WFD_RPA_Shellfish

WFD Register of Protected Areas Shellfish Areas	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.18c
CLIENT:	CARLOW COUNTY COUNCIL
DATE:	16/08/2023
SCALE:	1:207,500 @ A3



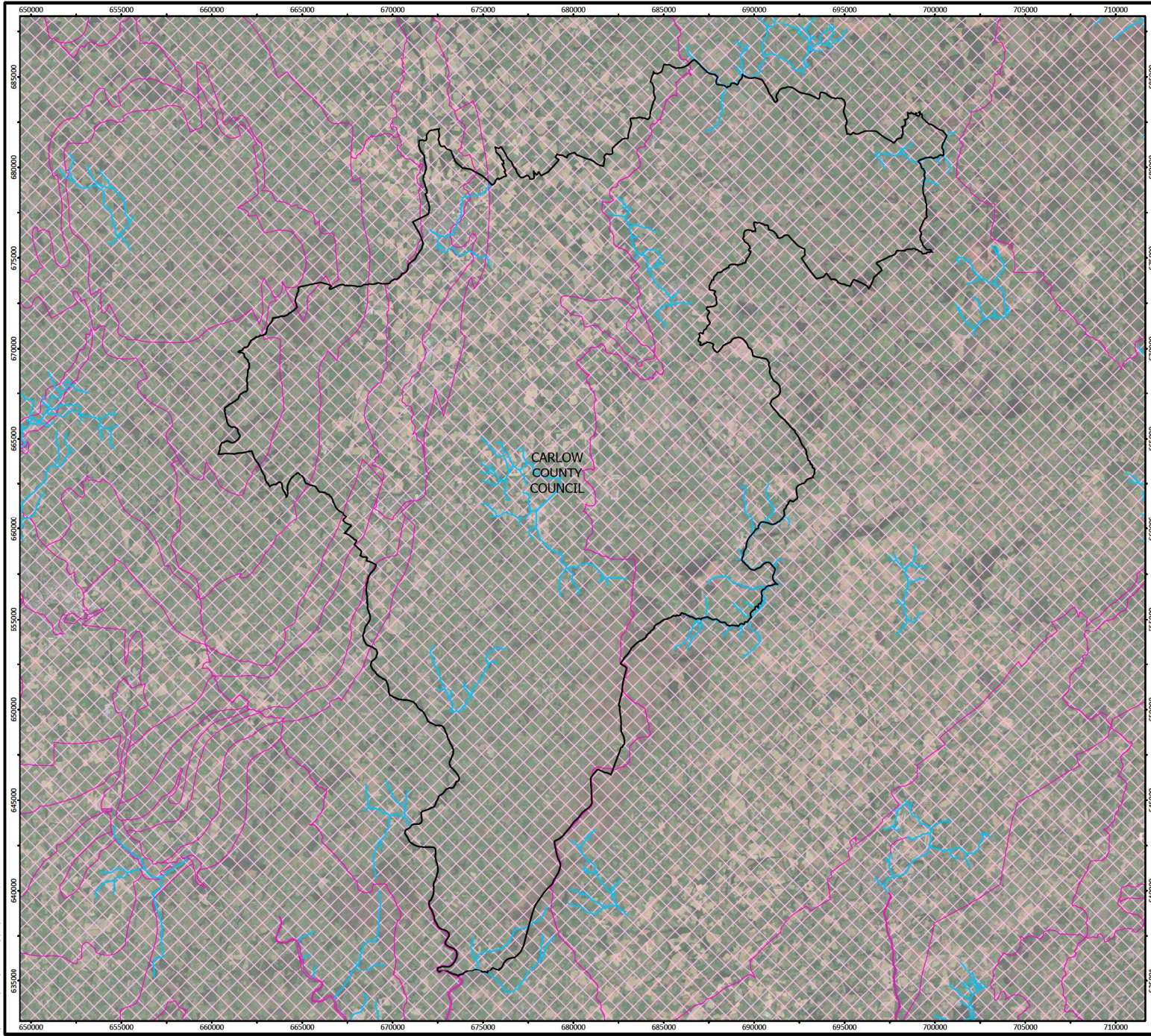


- Legend**
- Local Authority Boundaries
 - Designated Nutrient Sensitive Points
 - WFD Riverwater Bodies that intersect with Designated Nutrient Sensitive Areas (Pts, Polyline or Polygons)
 - Designated Nutrient Sensitive WFD_RiverwaterBodies
 - WFD Surface Water Polygons that intersect with Designated 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	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.18d
CLIENT: CARLOW COUNTY COUNCIL	
DATE: 16/08/2023	SCALE: 1:207,500 @ A3



Mapping reproduced under licence from the Ordnance Survey Ireland Licence No. CVAL0222229RD. Government of Ireland Creative Commons Attribution 4.0 International (CC BY 4.0) licence <https://creativecommons.org/licenses/by/4.0/>.
OpenStreetMap (© OpenStreetMap contributors), CC BY-SA



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

WFD Register of Protected Areas	
Drinking Water	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.18e
CLIENT: CARLOW COUNTY COUNCIL	
DATE: 30/08/2023	SCALE: 1:207,500 @ A3





4.10 Material Assets

4.10.1 Characterisation of the Environmental Baseline

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 were considered in the SEA. Material assets covered by the SEA include archaeological and architectural heritage (see Section 4.5) and natural resources of economic value, such as soil⁵¹, air and water (see Sections 4.6, 4.8 and 4.9).

4.10.1.1 *Water Services*

4.10.1.1.1 Wastewater

Wastewater demand and capacity information at settlements that were considered by the SEA, where available, includes⁵²:

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

The EPA produces annual reports on the treatment of urban waste water from cities, towns and urban communities. The latest EPA 2022 report⁵³ 'Urban Wastewater Treatment in 2021' identifies the priority areas where resources must be targeted, to protect the environment from the harmful effects of wastewater 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. Tullow in Carlow is listed as a priority area.

4.10.1.1.2 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.

⁵¹ Soil and geological resources will be considered under this topic including with respect to mineral locations and aggregate potential.

⁵² Detailed water services information will inform the preparation of the SEA Environmental Report.

⁵³ Available at [Monitoring & Assessment: Wastewater | Environmental Protection Agency \(epa.ie\)](https://www.epa.ie/monitoring/assessment/wastewater/)



4.10.1.2 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, Carlow was guided by the Southern Waste Management Plan 2015-2021 which provided the framework for solid waste management in the region. Post 2021, waste management in Ireland will be guided by the first National Waste Management Plan for a Circular Economy, which will replace the existing regional plans. This Plan sets out a framework for the prevention and management of waste in Ireland for the period 2023 to 2029.

4.10.1.3 Transport

Carlow is traversed by a hierarchy of roads, including sections of the M9 motorway, the N80, and the N81 national primary routes, providing important linkages and networks within, into, and around the County. Carlow town and Muine Bheag are serviced by the Dublin to Waterford intercity rail line. Public and private bus operators also link settlements within the County. These include NTA's Local Link Rural Transport programme, Bus Éireann, and other private bus services which serve a number of routes in the County several times daily.

4.10.1.4 Green Infrastructure

Green infrastructure (GI) is also a crucial component in building resilient communities capable of adapting to the consequences of climate change with trees, woodlands and wetlands providing carbon capture and slowing water flows while improving air quality. The Green Infrastructure strategy for Carlow provides a vision and a robust spatial framework which will identify, protect, promote and enhance the GI assets in the urban and rural environments of the County.

Carlow County Council's Climate Change Adaptation Strategy 2019-2024⁵⁴ identifies a number of adaptation objectives and actions for which GI are to play a key role. This includes the incorporation of GI (including urban greening) into the design, planning and construction of roads, community and public realm projects, and as a mechanism to promote biodiversity, reduce habitat fragmentation, and for carbon offset.

4.10.1.5 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.

4.10.1.6 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.

⁵⁴ Carlow County Council Climate Change Adaptation Strategy 2019-2024, Available at <https://www.carlow.ie/wp-content/documents/uploads/Climate%20Change%20Adaptation%20Strategy%202019.pdf>



4.10.1.7 Renewable Energy Potential

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

4.10.1.7.1 Energy Related Material Assets and Infrastructure

SEAI (2020⁵⁵) 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 was 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 2020⁵⁶). There is potential for renewable energy development in the County.

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
- TII
- Iarnród Éireann
- Department of Defence
- SFPA
- Irish Wind Energy Association (IWEA)
- Irish Bioenergy Association (IrBEA)
- Waterways Ireland
- Uisce Éireann
- Department of Housing, Local Government, and Heritage (DHLGH)⁵⁷
- SEAI
- ESB

⁵⁵ SEAI. 2020. SEI01 - Energy Balance data resource; Available at [SEI01 - Energy Balance \(ktoc\) - Datasets - data.gov.ie](https://data.gov.ie/datasets/sei01-energy-balance-ktoc)

⁵⁶ SEAI. 2020. Overall renewable energy share - available at [Renewables | Energy Statistics In Ireland | SEAI](https://www.seai.ie/energy-statistics-in-ireland)

⁵⁷ [Energy Offshore Renewable - Datasets - data.gov.ie](https://data.gov.ie/datasets/energy-offshore-renewable)



4.10.2 Key Issues Relating to the 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 & Recreation

4.11.1 Characterisation of the Environmental Baseline

Tourism and recreation are influenced by a range of factors in Ireland. International tourism has increased in recent years. Fáilte Ireland has recently published their four brand strategies⁵⁸ which will define the spatial scope and spread of future tourism developments within Ireland; most relevant to Carlow is Ireland's Ancient East. At a county level, CCC has developed the County Carlow Tourism Strategy and Action Plan 2020-2025. Cultural Heritage sites in Ireland also support heritage-related tourism and recreation, see Section 4.5. Landscape is also an important aspect in terms of Tourism, see Section 4.4.

The assessment of Tourism and Recreation has utilised the following information sources:

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

4.11.2 Key Issues Relating to the 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.

⁵⁸ Wild Atlantic Way, Dublin's a Breath of Fresh Air, Ireland's Ancient East, and Ireland's Hidden Heartlands.



4.12 Climate Change

4.12.1 Characterisation of the Environmental Baseline

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 were 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 Studies⁵⁹

4.12.2 Key Issues Relating to the LACAP

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

- The 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 LACAP.

⁵⁹ 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)

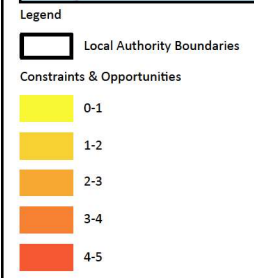
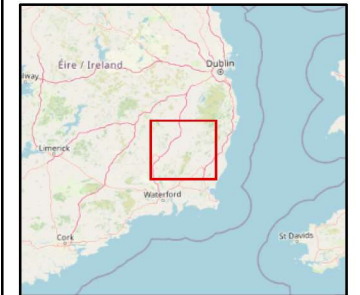
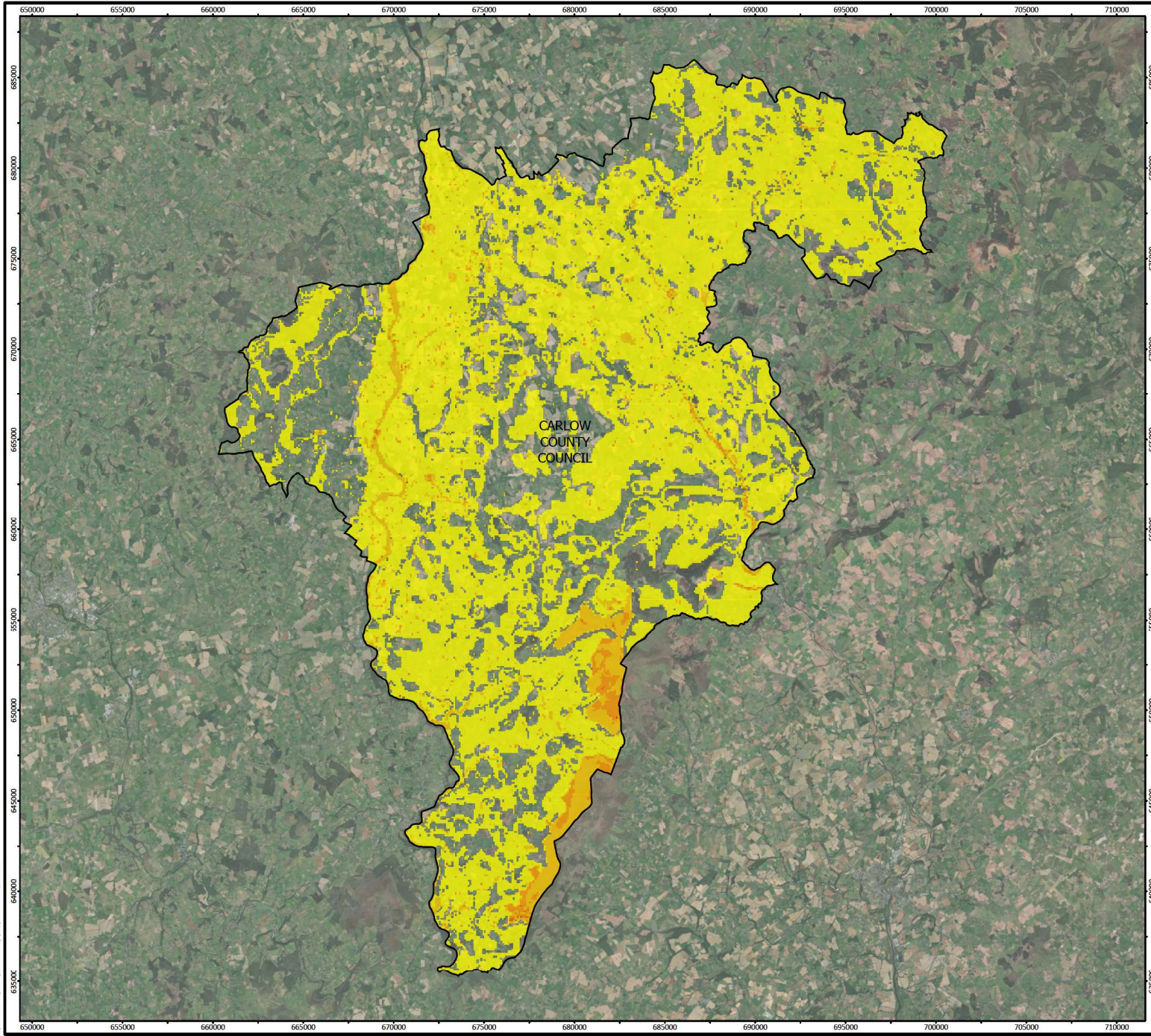


4.13 Constraints and Opportunities

The environmental baseline data was overlaid in raster form and ranked accordingly to produce an overall constraints and opportunities map for the Councils 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 or activities supported by Plan action will conflict with these sensitivities and cause environmental deterioration. However, the occurrence of environmental sensitivities does not preclude development or activities; 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.



Constraints and Opportunities	
CARLOW COUNTY COUNCIL Local Authority Climate Action Plans	
FIGURE NO:	4.19
CLIENT: CARLOW COUNTY COUNCIL	
DATE: 08/09/2023	SCALE: 1:207,500 @ 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 LACAP is not progressed and implemented. In the event the LACAP was not implemented; the baseline environment would primarily evolve in line with the development management standards and environmental protection criteria defined in Carlow 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 the CCC Draft Carlow Biodiversity Action Plan 2023 -2028 and Local Area Plans (LAPs) for the County.

Whilst some level of climate related policy was defined in the CDP, not progressing the specific set of climate mitigation and adaptation related actions defined in the LACAP would present several significant lost opportunities. A variety of likely positive environmental effects associated with 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 organization would adequately reduce its organizational 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 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 LACAP would not be implemented. The GHG emission sequestration potential associated with actions promoting the enhancement of ecological sites and greenspace would not be realized.

The biodiversity related protection measures defined in the 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 realized. 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 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 LACAP was not implemented, the net result would be that the likelihood of the local authority and local community realizing 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 were 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 LACAP were identified. Further information on other P/P's that define environmental protection objectives relevant to the 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 LACAP can be tested. SEOs are based on wider environmental protection objectives on local, regional, national, European and international level that are relevant to CCCs LACAP. They are high-level in nature and set strategic goals for improvement.

In this section, SEOs were defined for range of Environmental Components and can be used as standards against which the provisions of the 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 LACAP and the Study Area.

The development of SEOs was 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 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. ⁶⁰
	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, non-designated locally important sites, and sites proposed for designation; and to comply with the Wildlife Acts 1976-2012 with regard to listed species.
	B5	No net contribution to biodiversity losses or deterioration in response to the biodiversity emergency.
Landscape & 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 minimize effects on local air quality.
	AQN3	Avoid or minimize 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.

⁶⁰ '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
	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



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 LACAP (taking into account the objectives and the geographical scope of a plan or programme) are identified, described and evaluated for their likely significant effects on the environment. Such reasonable alternative must be realistic and capable of implementation.

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

Reasonable alternatives to the 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 LACAP, as defined in the Local Authority Climate Action Plan. This process facilitated the accurate identification of reasonable alternatives to the 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 was provided.

Reasonable alternatives were assessed against the Strategic Environmental Objectives (SEOs) established for the aspects of the baseline environment which are likely to be significantly affected by the 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 LACAP were considered during the plan-making process. The approach for identifying reasonable alternative to the 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 organizational 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 LACAP.
 - 2.2. The geographic scope of the 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 LACAP by higher-level policy.
 - 2.9. The legislative context and the parameters placed around the 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 utilized when identifying reasonable alternatives. The 'Why? What? Where? When?' Model defined in the guidelines were used when framing reasonable alternatives, as shown in Figure 6-1.

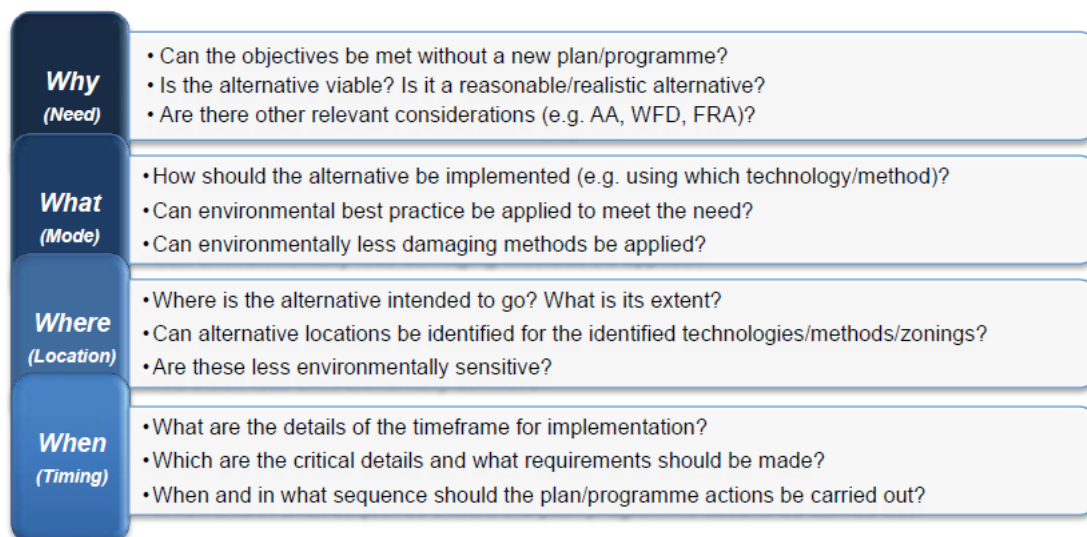


Figure 6-1: 'Why? What? Where? When?' Model for framing alternatives - Adapted from Figure 4.3 Developing and Assessing Alternatives in the Strategic Environmental Assessment Process (EPA, 2015).

6.4 Identification and Description of Reasonable Alternatives

Reasonable alternatives to the LACAP were 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 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 6-1).
<p>Alternative 1 - The Pareto Approach: Prioritize 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 reasonable 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 prioritizing and supporting climate mitigation related action for the Residential and Transport sectors. This alternative would be relevant to the county of Carlow 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 Carlow 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 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 organizational support given its strong community engagement emphasis. This alternative would be relevant to the county of Carlow 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 was carried out in accordance with the SEA Directive and best practice guidelines. An evaluation matrix was 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 were categorized as follows in the matrix:

- Potential Positive Environmental Impact (indicated in the matrix by a '+').⁶¹
- Potential Negative Environmental Impact (indicated in the matrix by a '-').⁶²
- 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').

⁶¹ Potential Positive Environmental Impacts are defined as having the potential to support the achievement of an SEO.

⁶² 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 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 emphasize 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 & 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.
	L2	-	+/-	+/-	



Environmental Component	SEO Code	Alternative 1 - The Pareto Approach (A1)	Alternative 2 - The Holistic Approach (A2)	Alternative 3 - The Holistic and Participatory Approach (Current LACAP) (A3)	Commentary
					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.
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.
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.



Environmental Component	SEO Code	Alternative 1 - The Pareto Approach (A1)	Alternative 2 - The Holistic Approach (A2)	Alternative 3 - The Holistic and Participatory Approach (Current LACAP) (A3)	Commentary
					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	-	+/-	+/-	<p>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.</p> <p>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.</p> <p>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.</p>
	W2	-	+/-	+/-	
	W3	-	+/-	+/-	
	W4	0	+	+	
	W5	-	+/-	+/-	
Material Assets	MAI1	-	-	-	<p>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.</p> <p>All alternatives are likely to contain a suite of climate actions that are supportive of active travel.</p>
	MAI2	-	-	-	
	MAI3	+	+	+	



Environmental Component	SEO Code	Alternative 1 - The Pareto Approach (A1)	Alternative 2 - The Holistic Approach (A2)	Alternative 3 - The Holistic and Participatory Approach (Current LACAP) (A3)	Commentary
	MAI4	0	+	+	<p>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.</p> <p>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.</p>
	MAI5	0	+	+	<p>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.</p> <p>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.</p>
Tourism & Recreation	TR1	-	+/-	+/-	<p>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 locations.</p> <p>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.</p>



Environmental Component	SEO Code	Alternative 1 - The Pareto Approach (A1)	Alternative 2 - The Holistic Approach (A2)	Alternative 3 - The Holistic and Participatory Approach (Current LACAP) (A3)	Commentary
Climate Change	CF1	+	+	+	A1, A2 and A3 all support the achievement of climate change related SEOs to some extent. 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.
	CF2	+	+	+	
	CF3	+	+	+	
	CF4	+	+	+	
Inter-relationships	IR1	0	+	+	A3 is likely to support maintaining and enhancing human health and ecosystem 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 realize 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 organizational, 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 realize 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 characterized and described in Section 4 of this report was carried out and is documented in this section of the report. This evaluation was 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 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 was carried out in accordance with the SEA Directive and best practice guidelines. An evaluation matrix was 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 LACAP Theme Area are contained in Appendix 3 of this report.

An overview of the key environmental effects the LACAP may have on Environmental Components was 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 LACAP. A precise evaluation of potential environmental effects cannot be carried out due to a lack of exact detail on actions and development that will be supported by the LACAP.
- Environmental effects of the LACAP were 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, cumulative⁶³, synergistic⁶⁴, 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.

⁶³ The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects.

⁶⁴ 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 organizational 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 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.
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 and potentially significant negative environmental effects however, including effects on local human receptors, biodiversity, landscape character and visual amenity, and the receiving noise environment.	PHH, BFF, L, AQN.
The plan supports the alteration in lighting processes for lower emissions potentially across a wide geographic area. In absence of appropriate mitigation, the wide use of such 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 have unintended and potentially significant negative effects on buildings that constitute protected structures, or on the context in which such protected structures of architectural or cultural heritage merit sit.	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.
The plan contains a set of actions designed to promote better resource management and the circular economy at organizational, 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.



Key Environmental Effect	Main Relevant Environmental Component/s
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 or wildfires. The implementation of this action has the potential to generated positive effects for these environmental receptors - by reducing the risk of such events impinging on or damaging these receptors.	PHH, BFF, CH.
Plan actions support the development, expansion and management of safe active travel networks. The delivery of an expanded safe active travel network has the potential to promote the use of sustainable and active travel modes in the community, encourage modal shift, reduce traffic related risks and support the reduction of vehicle related emissions - thereby positively impacting population and human health, local air quality and the climate environment.	PHH, AQN, CC, LU, MA.
Plan actions support the development, expansion and management of safe active travel networks. In the absence of appropriate design and mitigation, the development of active travel networks, depending on the particular nature, scale and extent of such development, could potentially have slight to significant negative effects on the receiving human, noise, air, water, soils, biodiversity, cultural heritage, material asset or existing traffic and transport environments.	PHH, AQN, W, S, BFF, CHH, MA, LU.
Plan actions support the expansion of the Electric Vehicle (EV) charging network and active travel parking in the local authority functional area. The successful delivery of this action has the potential to underpin the use of EV vehicles and active travel modes at community and local area level and support the reduction of vehicle related emissions, thereby positively impacting on local air quality, the climate and population and human health.	AQN, CC, PHH.
Plan actions support the expansion of EV charging network and active travel parking across the breadth of the local authority functional area. In the absence of appropriate mitigation, the construction of additional charging point infrastructure could have a range of slight to significant negative environmental effects on the receiving human, noise, air, water and biodiversity and cultural heritage components present in a particular local context.	PHH, AQN, W, BFF.

7.3 Potential Cumulative Effect of the 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 LACAP intra-plan cumulative effects was embedded into the detailed evaluation of environmental effects presented in Appendix 3. Potential intra-plan cumulative effects are presented below:

- The LACAP provides for actions which support the delivery of development and infrastructure projects (in the form of flood resilience, active travel, renewables, nature based solutions projects) which could contribute - if incorrectly managed - to cumulative impacts through construction related environmental effects (site run-off, dust, noise pollution etc.).
- Increased access to natural amenity sites could be facilitated by the combination of actions within the LACAP. Therefore, there could be cumulative effects related to this, particularly along waterways, 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 embedded in the evaluation of environmental effects that was 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 was 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 LACAP has a relationship with are identified in Section 2.5 of this report. It should be noted that all other plans programmes were or will be subject to environmental assessment, 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 protection, active travel, renewables, nature based solutions projects) which could contribute - if incorrectly managed - to cumulative impacts through construction related environmental effects (site run-off, dust, noise pollution etc.) in combination with development supported by other plans, including higher order plans (E.g., the CDP, LAPs, Framework for Alternative Fuel Infrastructure in Transport).
- Increased access to natural amenity sites could be facilitated by the combination of actions within the LACAP. Therefore, there could be cumulative effects related to this, particularly along waterways, in combination with other plans that support increased access to such sites.
- The LACAP supports a variety of actions relating to flood resilience and alleviation projects, which could introduce catchment level cumulative impacts on water quality, flow and hydrological regime/characteristics in combination with other plans that support such projects (E.g., Flood Risk Management Climate Change Sectoral Adaptation Plan).
- The effects of multiple LACAP actions have the potential to combine to robustly support a shift to sustainable and active travel modes of transport in combination with other plans. This has the potential to generate a variety of cumulative positive environmental effects, including positive effects on local air quality, human health, biodiversity and climate.
- The variety of positive effects of associated with the implementation of plan actions - in parallel with actions defined in other plans and programmes that are likely to generate positive environmental effects - have the potential to combine and interact and have long-term and wide encompassing positive environmental effects on a variety of environmental components, including population and human health, climate, biodiversity, water quality and hydrology, traffic and transport, material assets, cultural heritage and landscape and visual amenity.
- The variety of positive climate related effects associated with plan actions - in parallel with actions defined in other plans, including higher order plans, that are likely to generate positive effects on climate (E.g., the CAP23) - have the potential to combine to create a larger and profound positive effect on climate - having regard to the share of GHG emission reductions that can be supported via this action relative to national GHG emission reduction targets and requirements.

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



8. MITIGATION MEASURES

Potential negative environmental effects that may occur as a result of the implementation of the LACAP (without considering any mitigation) were identified in Section 7 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 LACAP.

In this case, the following forms of mitigation were adopted to ameliorate the negative environments of the LACAP and maximize potential positive effects of the plan and maximize 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 LACAP was chosen over the other alternative options considered for the following reasons:

- **Alternative 1 (considered) - The Pareto Approach** - will lead to some positive environmental effects, however it is less likely that this alternative will deliver the wide ranging and effective climate mitigation and adaptation action likely to result from implementation of the preferred LACAP. This alternative approach may also generate several negative environmental effects, which would not be counterbalanced by the potential positive environmental effects associated with the preferred LACAP.
- **Alternative 2 (considered) - The Holistic Approach** - and the preferred 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) - 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 LACAP were developed and then integrated into the 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 maximizing identified positive environmental effects of the LACAP.

Mitigation measures were suggested that maximize 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 also been shaped to ensure plan implementation generates the minimum level of negative environmental effects and the maximum level of positive environmental effects. These text additions are presented in Table 8-1.

Integrated Environmental Considerations relating to Decarbonising Zone Opportunities suggested for inclusion in the plan are defined in Table 8-2.

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. These principles are defined in Table 8-3.

For clarity and succinctness, only the defined mitigation measures have been presented in this section of the report. 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 the actions and opportunities which are being mitigated (in the case of negative environmental effects) or maximized (in the case of positive environmental effects).

These environmental mitigation measures to be integrated into the LACAP will prevent, reduce and fully offset any potential significant negative environmental effects, and will maximize potential environmental benefits and co-benefits of the LACAP.

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 - Additional text to be included in plan actions clarifying environmental protection related obligations and environmental enhancement opportunities

LACAP Action Reference	LACAP Action	Mitigation Measure
G1.12	Provide match funding to enable climate, energy and biodiversity action projects.	Attach the following text to the action: which promote climate action co-benefits and do not contravene relevant environmental protection criteria or cause significant negative environmental effects.
B1.2	Prepare and implement a carbon savings programme of measures for Council buildings/facilities to assist in achieving a 51% reduction in greenhouse gas emissions by 2030.	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.
B1.4	Complete the National Public Lighting Energy Efficiency Project in County Carlow to reduce the GHG emissions and energy usage of public Lighting.	Attach the following text to the action: while ensuring the lumen levels and spectral range are maintained or reduced/controlled to avoid effects to biodiversity.
B1.5	Develop planning conditions with specifications and standards to minimise energy use and light pollution from outdoor lighting in all new developments.	Attach the following text to the action: ensuring the lumen levels and spectral range are maintained or reduced/controlled to avoid effects to biodiversity.
B1.7	Upgrade existing social housing units using the worst first principal to B2 or cost optimal to reduce GHG emissions, energy consumption and contribute to alleviating fuel poverty for vulnerable residents.	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.
B1.8	Facilitate the upgrade of existing vacant & derelict residential and commercial properties in Carlow Town and County through schemes such as Towns Centre First, Croí Conaithe	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.



LACAP Action Reference	LACAP Action	Mitigation Measure
B1.9	Identify derelict properties throughout the County and use legislative powers such as Compulsory Purchase Order and compulsory acquisition order to facilitate their reuse.	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.
B1.10	Target brownfield, vacancy and dereliction as part of the housing for all programme through repair and lease, buy and renew and SHIP programmes	Attach the following text to the action: having due regard to environmental sensitivities such as European sites and biodiversity, 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.
B1.12	Prepare Carlow County Council guidelines for nature based sustainable drainage solutions	Attach the following text to the action: ensuring the guidelines have appropriate regard to environmental protection requirements, including requirements to protect European sites.
T1.1	Appoint a fleet manager and develop a fleet management policy for Carlow County Council Fleet.	Attach the following text to the action: Appoint a fleet manager and develop a sustainable fleet management policy for Carlow County Council Fleet.
T1.2	Investigate options for a renewable fuel alternative to diesel and the electrification of Council fleet vehicles including delivery of a pilot scheme.	Attach the following text to the action: while ensuring sustainability criteria is appropriately considered during procurement processes and appropriate end-of-life vehicle management practices are in place.
T1.3	Develop and Adopt Electric Vehicle Strategy to support the transition to electric vehicle use in the wider community for County Carlow and for the South East Region	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, cultural heritage etc.
T1.4	Deliver active travel projects across the County to encourage use of active travel modes such as walking or cycling.	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.
T1.5	Complete Transport Plans for Carlow Town, Tullow & Muine Bheag	Attach the following text to the action: having due regard to the potential to create climate action co-benefits, and environmental protection requirements, including the requirement to protect European sites.



LACAP Action Reference	LACAP Action	Mitigation Measure
NE1.2	Implement the actions set out in the County Carlow Green Infrastructure Strategy	Attach the following text to the action: having due regard to environmental sensitivities such as archaeology, European sites, biodiversity and amenity value.
NE1.4	Develop and implement a policy for the use of chemical pesticides and herbicides for areas managed by Carlow County Council.	Attach the following text to the action: ensuring these substances are only used to a degree that does not cause significant effects on the receiving environment, such as the receiving water environment, biodiversity or European sites.
NE1.5	Prepare a Hedge and Road Verge Maintenance Strategy for Carlow County Council	Attach the following text to the action: having due regard to hedgerow conservation requirements.
NE1.8	Develop a Tree Strategy to provide the vision and direction for long-term planning, planting, protection and maintenance of trees, hedgerows and woodlands within Carlow Town and County	Attach the following text to the action: Develop a Native Tree Strategy to provide the vision and direction for long-term planning, planting, protection and maintenance of native trees, hedgerows and woodlands within Carlow Town and County
C1.5	Develop a Green Festivals & Events Strategy	Attach the following text to the action: ensuring these are carried out in accordance with sustainability guidelines, having due regard to environmental sensitivities such as the receiving water environment, biodiversity, European sites, local air quality, cultural heritage etc.
SRM1.3	Regulate and enforce the National Enforcement Priorities (NEPs) which focus on delivering positive environmental outcomes for air quality, water quality and waste management. This includes over 2,000 different environmental inspections in Carlow annually.	Attach the following text to the action: Ensure sustainable transport modes are used to travel to and from inspection sites, where feasible.
SRM1.10	Carry out a feasibility study to identify the logistical, financial, and market challenges of a proposed district heating project in Carlow	Attach the following text to the action: ensuring the study has appropriate regard to planning and environmental protection considerations.



LACAP Action Reference	LACAP Action	Mitigation Measure
DZ1.2	Prepare a register of opportunities outlining projects that will aid carbon reduction in the Decarbonising Zone	Attach the following text to the action: ensuring integrated environmental protection requirements are appropriately considered.
DZ1.3	Carry out a geothermal feasibility study in Carlow Town to determine the technical and financial viability of a geothermal energy project.	Attach the following text to the action: ensuring the study has appropriate regard to planning and environmental protection considerations.
DZ1.4	Provide a central location, Mobility Hub, which facilitates linkages between various low carbon transport options from Carlow Town Centre.	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.
DZ1.5	Reduce private car dependency through the expansion of sustainable shared mobility infrastructures and schemes for Carlow Town	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.
DZ1.6	Provide improved pedestrian and cycle links to Carlow Bus Park and Carlow Train Station.	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.
DZ1.11	Advance Urban Regeneration and Development Fund (URDF) projects to achieve the Carlow 2040 plan.	Attach the following text to the action: having due regard to environmental sensitivities such as European sites and biodiversity, 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.



Table 8-2: Proposed Environmental Mitigation Measures - Integrated Environmental Considerations relating to Decarbonising Zone Opportunities suggested for inclusion in the plan

<p>The opportunities progressed, and any associated activities and development, such as energy, heating or active travel related development, shall have due regard to the need to protect sensitive aspects of the receiving environment, including local human receptors; European sites and biodiversity; heritage features, protected structures and the context in which such features sit; and the receiving water, soils and local air quality environment.</p>
<p>Any opportunities progressed that result in the development of renewable energy development, such as wind turbine development or solar panel development, shall specifically have due regard to the need to protect sensitive aspects of the environment from the typical effects of such development, including avifauna effects or landscape and visual related effects, including glint and glare.</p>
<p>Carlow County Council (CCC) will advocate and exert influence to ensure that opportunities progressed that lead to the development of additional electricity network infrastructure, including linear cable infrastructure development, by electricity network operators, does not contravene relevant planning and environmental protection criteria or cause significant negative environmental effects.</p>
<p>Any opportunities progressed that support the upgrade of public lighting, shall have due regard to the need to ensure the lumen levels and spectral range of such lighting are maintained or reduced/controlled to avoid effects on biodiversity.</p>

Table 8-3: Proposed Environmental Mitigation Measures - Environmental Governance Principles suggested for inclusion in the plan - specifically the plan implementation section

<p>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.</p>
<p>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.</p>
<p>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.</p>
<p>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.</p>
<p>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.</p>
<p>Promote climate action projects that support protected trees, hedgerows and other habitats such as wetlands, flood zones which contribute to green infrastructure.</p>
<p>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.</p>
<p>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.</p>
<p>Support opportunities to support peatland restoration, rehabilitation and maintenance while achieving climate targets through the implementation of the climate actions within the plan.</p>



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 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 LACAP. These development management standards/environmental protection measures were defined for the express purpose of ensuring proper planning and sustainable development in the County. The CDP was subject to its own SEA and AA. The LACAP was 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 summarized in Section 8.1 has resulted in the development of a 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 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 LACAP. No further mitigation measures are required for the LACAP.



9. POST DRAFT PLAN CONSULTATION REVISIONS

The LACAP has been approved by Carlow County Council. This document is the final SEA Environmental Report. An earlier draft version of this report has been updated having regard to the consultation submissions made during the SEA consultation period, and recommendations made in the Chief Executive (CE) Report on consultation submissions. No revisions were made to the original draft version of the LACAP that was put on display for consultation. Any updates made to the report were clerical or minor and non-material in nature and have not changed the parameters of the environmental assessment undertaken or the environmental mitigation defined.

An SEA Statement will now be prepared on how the SEA process shaped the content of the final plan and SEA documentation.



10. 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 were 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 LACAP and the progress of SEO objectives and targets. SEO targets set focussed, measurable aims and thresholds that the LACAP can support the achievement of.

Carlow 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 Climate Action section of Carlow County Council who will report on progress and performance to 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 realized, the LACAP should be reviewed and updated in a manner that supports the realization 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 LACAP is contained in Table 10-1. This monitoring programme was 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 10-1: 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. Require that all development projects in the County appropriately align and accord with action defined in the Plan.	Review of Local Area Plans. Internal monitoring of likely significant environmental effects of development projects. Review of lower-level plan SEA documentation.
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)/Health Atlas Ireland 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. Planning consent for development proposals supported by the plan only to be granted where development complies with policies protective/supportive of economic 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).	No contravention of policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the CDP. Ensure no habitats are impacted by the effects of climate change. Ensure no reduction in the number of geographic distribution of species as a result of climate change effects.	Internal monitoring of compliance with CDP Policy Objectives. Internal monitoring of compliance with the 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
			<p>Number and geographical distribution of Species or Species population trends impacted by climate change.</p> <p>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.</p>	<p>No contravention of policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the County's Biodiversity Action Plan.</p> <p>Planning consent for development proposals supported by the plan only to be granted where development complies with policy supporting biodiversity protection and enhancement.</p>	
	B2	Ensure compliance with Habitats and Birds Directives with regard to protection of European Sites and Annexed habitats and species ⁶⁵ .	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.	<p>Internal monitoring of likely significant environmental effects of development projects.</p> <p>Consultation with the NPWS.</p> <p>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.</p> <p>Department of Housing, Local Government and Heritage's National Birds Directive Monitoring Report for the Birds Directive under Article 12.</p> <p>Review of NPWS publications regarding the status of European sites.</p>

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



Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
	B3	Support Article 10 of the Habitats Directive with regard to the management of features of the landscape which - by virtue of their linear and continuous structure or their function as stepping stones (designated or not) - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species.	<p>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.</p> <p>Linear meters of riparian corridors enhanced with native planting.</p> <p>Fragmentation or breaks in continuity of habitats and loss of wildlife corridors, stepping stones and connectivity (km²).</p> <p>Number of developments permitted that have significant greenspace proposals.</p>	<p>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.</p> <p>Increase linear metres of riparian corridor enhanced with native planting.</p> <p>Reduce habitat fragmentation or breaks.</p> <p>Increase number of developments permitted that have significant greenspace proposals.</p>	<p>Internal monitoring of likely significant environmental effects of development projects.</p> <p>Mapping of LR important habitats and species as part of the County Biodiversity Plan</p>
	B4	To avoid or minimize significant impacts on semi-natural habitats, species, environmental features, or other sustaining resources in designated national sites, non-designated locally important sites, and sites proposed for designation; and to comply with the Wildlife Acts 1976-2012 with regard to listed species.	<p>Condition of semi-natural habitats, species, environmental features or other sustaining resources in designated national sites, non-designated locally important sites, and sites proposed for designation.</p> <p>Status of listed species in the Wildlife Acts 1976 - 2012.</p>	<p>No adverse impacts on condition of semi-natural habitats, species, environmental features or other sustaining resources in designated national sites, non-designated locally important sites, and sites proposed for designation, as a result of plan implementation.</p> <p>No adverse impacts on listed species in the Wildlife Acts 1976 - 2012 as a result of plan implementation.</p>	<p>Internal monitoring of likely significant environmental effects of development projects.</p> <p>Mapping of LR important habitats and species as part of the County Biodiversity Plan.</p>
	B5	No net contribution to biodiversity losses or deterioration 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.	<p>No contravention of policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the CDP.</p> <p>Increase number of developments permitted that have significant greenspace proposals.</p>	<p>Internal monitoring of compliance with CDP Policy Objectives.</p> <p>Internal monitoring of compliance with the County Biodiversity Action Plan.</p> <p>Internal monitoring of likely significant environmental effects of development projects.</p>



Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
			<p>No. of developments permitted that have significant greenspace proposals.</p> <p>Improved biodiversity areas (Area km² /length metres).</p> <p>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.</p>	<p>Increase quantum of improved biodiversity areas.</p> <p>No contravention of policies providing for the protection and enhancement of Biodiversity and flora and fauna defined in the County's Biodiversity Action Plan.</p> <p>Planning consent for development proposals supported by the plan only to be granted where development complies with policy supportive of biodiversity protection and enhancement.</p>	<p>Mapping of LR important habitats and species as part of the County Biodiversity Plan.</p>
Landscape, & Visual Amenity	L1	Avoid or, minimise impacts to statutory landscape designations defined in the CDP.	<p>Status of Landscape Character Areas, High Amenity Zones, Historic Landscape Character Areas and Views and Prospects.</p> <p>Number of developments permitted that result in avoidable adverse impacts on Landscape Character Areas, High Amenity Zones, Historic Landscape Character Areas and Views and Prospects.</p> <p>Number of areas in the local authority functional area designated for their landscape character or visual amenity.</p>	<p>All action and development proposals supported by the plan must comply with policy objectives relating to the protection of Landscape Character Areas, High Amenity Zones, Historic Landscape Character Areas and Views and Prospects defined in the CDP.</p> <p>No development supported by the plan should have an adverse impact on Landscape Character Areas, High Amenity Zones, Historic Landscape Character Areas and Views and Prospects.</p>	<p>Internal monitoring of compliance with CDP Policy Objectives.</p> <p>Internal monitoring of likely significant environmental effects of development projects.</p> <p>Review of future iterations of the Landscape Character Assessment.</p>
	L2	Avoid or minimise adverse visual effects on residential receptors or other sensitive visual receptors.	<p>Number of developments permitted that result in avoidable adverse visual impacts on residential receptors or other sensitive visual receptors.</p>	<p>No development supported by the plan should have a significant adverse visual impact on residential receptors or other sensitive visual receptors.</p>	<p>Internal monitoring of likely significant environmental effects of development projects.</p> <p>Review of future iterations of the Landscape Character Assessment.</p>



Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
				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.	
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)).	<p>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.</p> <p>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.</p>	<p>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.</p> <p>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.</p>	<p>Internal monitoring of likely significant environmental effects of development projects.</p> <p>Consultation with the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media.</p> <p>Review of Heritage Plan environmental effect monitoring.</p>
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.	<p>Internal monitoring of likely significant environmental effects of development projects.</p> <p>Consultation with Geological Survey of Ireland and review of published data on the soils environment.</p>
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.	<p>Internal monitoring of likely significant environmental effects of development projects.</p> <p>Review of Land Use, Land Use Change and Forestry related Greenhouse Gas emissions calculated in the Baseline Emission Inventory.</p>



Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
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 minimize effects on local air quality.	Number of developments permitted that result in avoidable adverse air quality impacts on sensitive receptors. Number of exceedances of ambient air quality standards in the County, as monitored under the EPA's National Ambient Air Quality Monitoring Network. Improvements in air quality status in the County.	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. Minimize 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. Review of EPA annual 'Air Quality in Ireland Report.
	AQN3	Avoid or minimize 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. Review of environmental quality data detailed in the EPA Maps Application.



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. Review of environmental quality data detailed in the EPA Maps Application.
	W3	Prevent impact upon the WFD status of surface waters and groundwater in line with the requirements of the WFD.	Number of instances of significant adverse impact on surface water or groundwater bodies resulting in a reduction in water quality or the ability of a water body to achieve 'good' water quality status.	No instances of significant adverse impact on surface water or groundwater bodies resulting in a reduction in water quality or the ability of a water body to achieve 'good' water quality status.	Internal monitoring of likely significant environmental effects of development projects. Consultation with the EPA.
	W4	Comply as appropriate with the provisions of the Flood Risk Management Guidelines.	Number of incompatible developments (supported by the plan) permitted within flood risk areas.	Minimise developments (supported by the plan) granted permission on lands which pose - or are likely to pose in the future - a significant flood risk, having appropriate regard to the Flood Risk Management guidelines.	Internal monitoring of development projects granted planning consent.
	W5	Prevent impact upon drinking water quality	Number of non-compliances with Drinking Water Quality Standards defined in the European Union (Drinking Water) Regulations 2023.	No non-compliances with Drinking Water Quality Standards defined in the European Union (Drinking Water) Regulations 2023.	EPA Drinking Water Quality Reports. Review of environmental quality data detailed in the EPA Maps Application.
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.



Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
	MAI2	Avoid or minimise effects on effects upon existing and (where known) planned infrastructure.	Number of incompatible developments (supported by the plan) adversely affecting existing or planned infrastructure, including water supply, wastewater management, energy and transport infrastructure.	No incompatible development (supported by the plan) adversely affecting existing or planned material assets infrastructure.	Internal monitoring of likely significant environmental effects of development projects, including monitoring of effects on other future planned or committed material asset infrastructure projects. Consultation with Irish Water, Gas Networks Ireland, ESB Networks and Transport Infrastructure Ireland.
	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.



Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
	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.
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 Decarbonizing 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 Decarbonizing 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	Level of GHG emissions in the Decarbonising Zone.	Reduce Decarbonising Zone GHG emissions to Net Zero.	Baseline Emission Inventory for the Decarbonizing Zone.



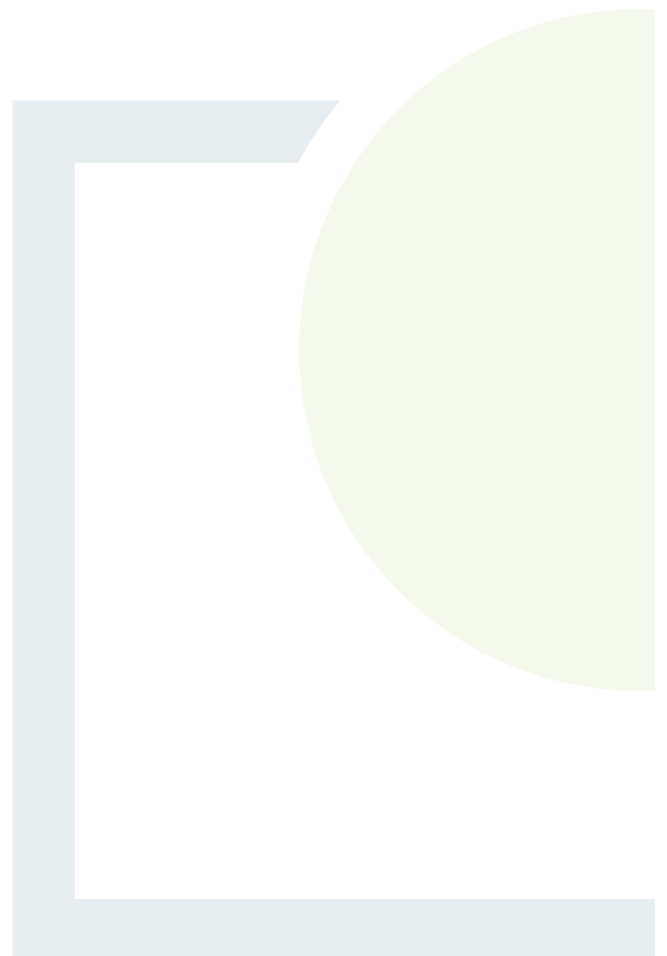
Environmental Component	SEO Code	Strategic Environmental Objective	Indicators	Targets	Data Source
		assist in the delivery of the National Climate Objective.			
Inter-relationships	IR1	Maintain and improve the health of people, ecosystems and natural processes Actively seek to integrate opportunities for environmental enhancement during adaptation to climate change	Number of blue and green infrastructure measures included as part of development projects that were granted planning consent.	Increase the number of blue and green infrastructure measures included as part of development projects that were granted planning consent.	Review of granted planning consent.



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

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

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>achievement of 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]	<ul style="list-style-type: none"> • 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)	<ul style="list-style-type: none"> • 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

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 	regulatory framework for environmental protection and management.
Directive 2010/75/EU on industrial emissions	<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>
EU Plant Protection (products) Directive 2009/127/EC	<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. Provisions on joint projects between Member States and between Member States and third countries are laid down too.</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
		<p>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.</p>	
<p>Alternative Fuels Infrastructure Directive (2014/94/EU)</p>	<p>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.</p>	<p>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.</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>Energy Efficiency Directive (EU) 2023/1791</p>	<p>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.</p>	<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. 	<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
		<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
<p>Biodiversity Strategy for 2030 - Bringing nature back into our lives (European Commission, 2020)</p>	<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>
<p>EU Green Infrastructure Strategy</p>	<p>Aims to create a robust enabling framework in order to promote and facilitate Green Infrastructure (GI) projects.</p>	<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. 	<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</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
			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. 	<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>
UN (1992) The Convention on Biological Diversity	<p>An overall objective is to develop national strategies for the conservation and sustainable use of biological diversity.</p>	<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. 	<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>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
<p>UN (1992) Framework Convention on Climate Change</p>	<p>It is aimed at stabilising greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.</p>	<p>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.</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.</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>UN Kyoto Protocol (2nd Kyoto Period), the Second European Climate Change Programme (ECCP II), Paris climate conference (COP21) 2015 (Paris Agreement)</p>	<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. 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>	<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. 	<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 2020 Climate and Energy Package	<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>
EU 2030 Framework for Climate and Energy	<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>
The Clean Air for Europe Directive (2008/50/EC) (EU Air Framework Directive)	<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. 	<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. 	<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</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Fourth Daughter Directive (2004/107/EC)	<ul style="list-style-type: none"> 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"> 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. 	regulatory framework for environmental protection and management.
Noise Directive (2002/49/EC)	<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 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>	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
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. 	<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 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. Promote sustainable water usage. The Water Framework Directive repealed the following Directives: <ul style="list-style-type: none"> The Drinking Water Abstraction Directive Sampling Drinking Water Directive Exchange of Information on Quality of Surface Freshwater Directive Shellfish Directive Freshwater Fish Directive 	<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. Establish a programme of monitoring for surface water status, groundwater status and protected areas. Recover costs for water 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>

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"> • Groundwater Directive • Dangerous Substances Directive 		
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. 	<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>
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. • 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. 	<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 • 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>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
Urban Waste Water Treatment Directive (91/271/EEC)	<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>
Environmental Liability Directive (2004/35/EC) as amended by Directive 2006/21/EC, Directive 2009/31/EC and Directive 2013/30/EU	<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. 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. 	<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
		<ul style="list-style-type: none"> • 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. 	
<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. 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.</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
Convention of the Protection of the Architectural Heritage of Europe (Granada 1995)	<p>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.</p>	<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. 	<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>
ICOMOS (2011) Principles for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes ('Dublin Principles')	<p>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.</p>	<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. 	<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>
Council of Europe Framework Convention on the Value of Cultural Heritage for Society (Faro 2005)	<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. 	<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. 	<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</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"> • 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"> • 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>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>
<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. 	<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
		<ul style="list-style-type: none"> • Two additional horizontal priority objectives complete the programme: • To make the Union's cities more sustainable. • To help the Union address international environmental and climate challenges more effectively. 	
Bern Convention (Convention on the Conservation of European Wildlife and Natural Habitats)	<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. • Created the Emerald Network, an ecological network made up of Areas of Special Conservation Interest. 	<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>
Bali Road Map (2007)	<p>The overall goals of the project are twofold:</p> <ul style="list-style-type: none"> • To increase national capacity to co-ordinate ministerial views, participate in the UNFCCC process, and negotiate positions within the timeframe of the Bali Action Plan; and 	<p>The Bali Action Plan is centred on four main building Blocks:</p> <ul style="list-style-type: none"> • mitigation • adaptation • technology 	<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</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"> To assess investment and financial flows to address climate change for up to three key sectors and/or economic activities. 	<ul style="list-style-type: none"> financing 	achievement of the objectives of the regulatory framework for environmental protection and management.
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 	Among the most prominent agreements is the establishment of a Green Climate Fund to transfer money from the developed to developing world to tackle the impacts of climate change.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Doha Climate Gateway (2012)	Set of decisions taken at the COP 18 meeting in Doha in 2012 which pave the way for a new agreement in Paris in 2015.	<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. 	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
EU 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.	The aims are achieved by applying REACH, namely: <ul style="list-style-type: none"> Registration, Evaluation, Authorisation; and Restriction of chemicals. REACH also aims to enhance innovation and competitiveness of the EU chemicals industry.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Stockholm Convention	The objective of the Stockholm Convention is to protect human health and the environment from persistent organic pollutants.	<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 	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"> • To target additional POPs • Other provisions of the Convention relate to the development of implementation plans, information exchange, public information, awareness and education, research, development and monitoring, technical assistance, financial resources and mechanisms, reporting, effectiveness evaluation and non-compliance 	
Ramsar Convention	The Convention’s mission is “the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world”.	<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. 	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European 2020 Strategy for Growth	<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. 	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
The European Green Deal (EGD) 2019	The deal sets out how to make Europe the first climate-neutral continent by 2050, boosting the economy, improving people’s quality of life, caring for nature and leaving no one behind.	<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 	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU (2018) Clean Air Policy Package	Aims to substantially reduce air pollution across the EU.	The proposed strategy sets out objectives for reducing the health and environmental impacts of air pollution by 2030, and contains legislative proposals to implement stricter standards for emissions and air pollution.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies 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
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>

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"> 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>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
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>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.</p>	<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>
European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011, as amended)	<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>
Waste Management Act 1996, as amended	<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>	<ul style="list-style-type: none"> • 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>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 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>

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"> Part C of Schedule 6 amends the information to be provided to the Minister by the EPA with regard to the pollutants and their indicators for which threshold values have been established 	
S.I. No. 113/2022 - European Union (Good Agricultural Practice for Protection of Waters) Regulations 2022	<ul style="list-style-type: none"> 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>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>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
<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 • 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 	<ul style="list-style-type: none"> • 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>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>

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"> Environmental Protection Agency (Industrial Emissions)(Licensing) Regulations 2013. <p>Environmental Protection Agency (Licensing Fees) Regulations 2013</p>			
<p>Bathing Water Quality Regulations 2008 (S.I. 79 of 2008)</p>	<ul style="list-style-type: none"> These Regulations provide for transposition of the EU Bathing Water Directive 2006 (Directive 2006/7/EC of 15 February 2006) which aims: <ul style="list-style-type: none"> To improve health protection for bathers To establish a more pro-active approach to management of bathing waters, and To promote increased public involvement and dissemination of information to the public. 	<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. 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. 	<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
		<ul style="list-style-type: none"> • 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. 	
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>	<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</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"> • 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>environmental protection and management.</p>
<p>Climate Action Plan 2023</p>	<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>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
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>
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. 	<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>

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"> • “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.” 		
All Island Grid Study 2008	<ul style="list-style-type: none"> • The All Island Grid Study is the first comprehensive assessment of the ability of the electrical power system and, as part of that, the transmission network (“the grid”) on the island of Ireland to absorb large amounts of electricity produced from renewable energy sources. • The objective of this five-part study is to assess the technical feasibility and the relative costs and benefits associated with various scenarios for increased shares of electricity sourced from renewable energy in the all island power system. 	<p>Key conclusions of the study:</p> <ul style="list-style-type: none"> • The presented results indicate that the differences in cost between the highest cost and the lowest cost portfolios are low (7%), given the assumptions made and costs included in the Study. • All but the high coal-based portfolio lead to significant reductions of CO2 emissions compared to portfolio 1 • All but the high coal-based portfolio lead to reductions on the dependency of the all island system on fuel and electricity imports. • The limitations of the study may overstate the technical feasibility of the portfolios analysed and could impact the costs and benefits resulting. Further work is required to understand the extent of such impact. • Timely development of the transmission networks, requiring means to address the planning challenge, is a precondition for implementation of the portfolios considered. • Market mechanisms must facilitate the installation of complementary, i.e. flexible, dispatchable plant, so as to maintain adequate levels of system security. 	<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>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
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. 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"> A Strategic Greenway network of national and regional routes, with a number of high capacity flagship routes that can be extended and/or link with local Greenways and other cycling and walking infrastructure; Greenways of scale and appropriate standard that have significant potential to deliver an increase in activity tourism to Ireland and are regularly used by overseas visitors, domestic visitors and locals thereby contributing to a healthier society through increased physical activity; Greenways that provide a substantially segregated offroad experience linking places of interest, recreation and leisure in areas with beautiful scenery of different types with plenty to see and do; and 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. 	<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 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 	<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
		<ul style="list-style-type: none"> • 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>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; • 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>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>National Landscape Strategy for Ireland 2015-2025 and National Landscape Character</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>
<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</p>	<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>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
	<p>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. 		
National Ports Policy 2013	The core objective of National Ports Policy is to facilitate a competitive and effective market for maritime transport services.	National Ports Policy introduces clear categorisation of the ports sector into Ports of National Significance (Tier 1), Ports of National Significance (Tier 2) and Ports of Regional Significance.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Aviation Policy 2015	Specifically, the principal goals of this National Aviation Policy are:	<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; 	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

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"> • 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. 	<ul style="list-style-type: none"> • 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 	achievement of the objectives of the regulatory framework for environmental protection and management.
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: <i>“A Healthy Ireland, where everyone can enjoy physical and mental health and wellbeing to their full potential, where</i></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 	<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</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
	<i>wellbeing is valued and supported at every level of society and is everyone’s responsibility.”</i>	<ul style="list-style-type: none"> • 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 	bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Tourism Policy Statement: People, Place and Policy – Growing Tourism to 2025	The main goal of this policy statement is to have a vibrant, attractive tourism sector that makes a significant contribution to employment across the country; is economically, socially and environmentally sustainable; helps promote a positive image of Ireland overseas, and is a sector in which people want to work.	<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. 	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Tourism Strategy for Northern Ireland: 10 Year Plan	<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. 	<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>	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.

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"> • 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.” • This Plan may or may not be directly relevant to the LACAP, however, is considered influential in the context of national climate action delivery. 		
Our Sustainable Future: A framework for Sustainable Development for Ireland 2012	<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>
National Investment Framework for Transport in Ireland (NIFTI) 2021	<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>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
<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. • Adaptation actions taken to increase climate resilience must also consider impacts on other sectors and levels of governance 	<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>Governments White Paper ‘Ireland’s Transition to a Low Carbon Energy Future’ (2015 – 2030)</p>	<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>
<p>Wildlife Act of 1976</p> <p>Wildlife (Amendment) Act, 2000</p>	<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>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Actions for Biodiversity (2017-2021) Ireland's National Biodiversity Plan	Sets out strategic objectives, targets and actions to conserve and restore Ireland's biodiversity and to prevent and reduce the loss of biodiversity in Ireland and globally.	<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. • To conserve and restore biodiversity and ecosystem services in the marine environment. • To expand and improve on the management of protected areas and legally protected species. • To substantially strengthen the effectiveness of international governance for biodiversity and ecosystem services. 	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 Broadband Plan (2012)	Sets out the strategy to deliver high speed broadband throughout Ireland.	The Plan sets out: <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.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
<p>The Planning System and Flood Risk Management – Guidelines for Planning Authorities (2009)</p>	<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. • 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>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 (Water Policy) Regulations of 2003 (SI 722 of 2003)</p> <p>European Communities (Water Policy) Regulations</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. 	<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</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
<p>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"> • 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. • Establishes threshold values for the classification and protection of surface waters against pollution and deterioration in quality. 	<p>environmental protection and management.</p>
<p>Local Government (Water Pollution) Acts 1977 to 1990</p>	<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>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
<p>Water Services Act 2007</p> <p>Water Services (Amendment) Act 2012</p> <p>Water Services Act (No. 2) 2013</p> <p>Water Services Act 2017</p>	<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. • 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. 	<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 • 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. 	<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>
<p>Irish Water’s (now known as Uisce Eireann) Water Services Strategic Plan 2015 and associated Proposed</p>	<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</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. 	<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</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Capital Investment Plan (2020 - 2024)	identifies the priorities to be tackled in the short and medium term.	<ul style="list-style-type: none"> • Support Social and Economic Growth. • Invest in the Future. 	achievement of the objectives of the regulatory framework for environmental protection and management.
Raised Bog SAC Management Plan and Review of Raised Bog Natural Heritage Areas 2017 - 2022	Aims to meet nature conservation obligations while having regard to national and local economic, social and cultural needs	<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. • Review the current raised bog NHA network in terms of its contribution to the national conservation objective for raised bog habitats and determine the most suitable sites to replace the losses of active raised bog habitat and high bog areas within the SAC network and to enhance the national network of NHAs. 	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Food Harvest 2020	Food Harvest 2020 is a roadmap for the Irish food industry, as it seeks to innovate and expand in response to increased global demand for quality foods. It sets out a vision for the potential growth in agricultural output after the removal of milk quotas.	Seeks for the improvement of all agricultural sectors at all levels in terms of sustainability, environmental consideration and marketing development.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Agri-vision 2015 Action Plan	Outlines the vision for agricultural industry to improve competitiveness and response to market demand while respecting and enhancing the environment	Not applicable	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
			environmental protection and management.
Rural Environmental Protection Scheme (REPS) Agri-Environmental Options Scheme (AEOS) Green, Low-Carbon, Agri- environment Scheme (GLAS)	<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. • Implement nutrient management plans and grassland management plans. • Protect and maintain water bodies, wetlands and cultural heritage. 	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Rural Development Programme	The National Rural Development Programme, prepared by the Department of Agriculture, Fisheries and Food, sets out a national programme based on the EU framework for rural development and prioritises improving the competitiveness of agriculture, improving the environment and improving the quality of life in rural areas	<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; 	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

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"> • 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. 	achievement of the objectives of the regulatory framework for environmental protection and management.
River Basin Management Plan	River Basin Management Plans set out the measures planned to maintain and improve the status of waters.	<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 responsible. 	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"> • 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. <p>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.</p>	
Flood Risk Management Plans arising from National Catchment Flood Risk Assessment and Management Programme	<p>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.</p>	<p>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.</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>
Draft National Bioenergy Plan 2014 - 2020	<p>The Draft Bioenergy Plan sets out a vision as follows:</p> <ul style="list-style-type: none"> • Bioenergy resources contributing to economic development and sustainable growth, generating jobs for citizens, supported by coherent policy, planning and regulation, and managed in an integrated manner. 	<p>Three high level goals of equal importance, based on the concept of sustainable development are identified:</p> <ul style="list-style-type: none"> • To harness the market opportunities presented by bioenergy in order to achieve economic development, growth and jobs. • To increase awareness of the value, opportunities and societal benefits of developing bioenergy. 	<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</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"> To ensure that bioenergy developments do not adversely impact the environment and its living and non-living resources. 	environmental protection and management.
Draft Renewable Electricity Policy and Development Framework (DCCAE) 2016	Goal: To optimise the opportunities in Ireland for renewable electricity development on land at significant scale, to serve both the All Island Single Electricity Market and any future regional market within the European Union, in accordance with European and Irish law, including Directive 2018/2001: On the promotion of the use of energy from renewable resources.	Objective: To develop a Policy and Development Framework for renewable electricity generation on land to serve both the All Island Single Electricity Market and any future regional market within the European Union, with particular focus on large scale projects for indigenous renewable electricity generation. This will, inter alia, provide guidance for planning authorities and An Bord Pleanála.	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Alternative Fuels Infrastructure for the Transport Sector (DTTAS) 2017-2030	This Framework sets targets to achieve an appropriate level of alternative fuels infrastructure for transport, which is relative to national policy and Irish market needs. Non-infrastructure-based incentives to support the use of the infrastructure and the uptake of alternative fuels are also included within the scope of the Framework.	Targets for alternative fuel infrastructure include the following: <ul style="list-style-type: none"> AFV forecasts Electricity targets Natural gas (CNG, LNG) targets Hydrogen targets Biofuels targets LPG targets Synthetic and paraffinic fuels targets 	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Food Wise 2025 (DAFM)	Food Wise 2025 sets out a ten year plan for the agri-food sector. It underlines the sector's unique and special position within the Irish economy, and it illustrates the potential which exists for this sector to grow even further.	Food Wise 2025 identifies ambitious and challenging growth projections for the industry over the next ten years including: <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. 	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

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"> The creation of 23,000 additional jobs all along the supply chain from producer level to high end value added product development. 	environmental protection and management.
Strategic Planning Policy Statement (SPPS) NI	The SPPS consolidates some twenty separate policy publications into one document and sets out strategic subject planning policy for a wide range of planning matters. It also provides the core planning principles to underpin delivery of the two-tier planning system with the aim of furthering sustainable development.	<ul style="list-style-type: none"> The overall objective of the planning system is to further sustainable development and improve well-being for the people of the North. 	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Policy Framework For Alternative Fuels Infrastructure for Transport in Ireland 2017 to 2030	<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.
Climate Change Sectoral Adaptation Plan for Built and Archaeological Heritage (2019)	<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. 	<p>The five adaptation goals for built and archaeological heritage in Ireland are:</p> <ol style="list-style-type: none"> To improve understanding of each heritage resource and its vulnerability to climate change 	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

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"> 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>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 	<ol style="list-style-type: none"> To develop and mainstream sustainable policies and plans for climate-change adaptation of built and archaeological heritage To conserve Ireland’s heritage for future generations To communicate and transfer knowledge <p>To exploit the opportunities for built and archaeological heritage to demonstrate value and secure resources</p>	<p>achievement of the objectives of the regulatory framework for environmental protection.</p>
<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>			

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Regional Economic and Spatial Strategies	<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; 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>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>
Regional Development Strategy 2035 (Northern Ireland)	<ul style="list-style-type: none"> • Spatial strategy for the future development of Northern Ireland. • Strategic planning framework to facilitate and guide public and private sectors. • This Plan may or may not be directly relevant to the LACAP, however, is considered influential in the context of national climate action delivery. 	<p>Aims to provide long-term policy direction with a strategic spatial perspective.</p>	<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>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
<p>Greater Dublin Area (GDA) Transport Strategy (2022-2042)</p>	<p>It sets out how transport will be developed across the region, covering Dublin, Meath, Wicklow and Kildare, over the period of the strategy and has been approved by the Minister for Transport, Tourism and Sport in accordance with the relevant legislation.</p> <p>This Strategy may or may not be directly relevant to the LACAP, however is considered influential in the context of national climate action delivery.</p>	<p>They set out a number of core principles deriving from the strategic vision, which are:</p> <ul style="list-style-type: none"> • Dublin as the capital city of Ireland and a major European centre shall grow and progress, competing with other cities in the EU, and serving a wide range of international, • national, regional and local needs. • The Dublin and Mid-East Regions will be attractive, vibrant locations for industry, commerce, recreation and tourism and will be a major focus for economic growth within the Country. • The GDA, through its ports and airport connections will continue to be the most important entry/exit point for the country as a whole, and as a Gateway between the European Union and the rest of the World. Access to and through the GDA will continue to be a matter of national importance. • Development in the GDA shall be directly related to investment in integrated high quality public transport services and focused on compact urban form. • Development within the existing urban footprint of the Metropolitan Area will be consolidated to achieve a more compact urban form • Development in the Hinterland Area will be focused on the high quality integrated growth and consolidation of development in key identified towns, separated from each other by extensive areas of strategic green belt land devoted to agriculture and similar uses. 	<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>Transport Strategy for the Cork</p>	<p>The Strategy addresses all transport modes and its objective will be to provide a long-term</p>	<p>It will be used to inform transport investment levels and investment prioritisation over both the longer and</p>	<p>Implementation of the Climate Action Plan needs to comply with all</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Metropolitan Area 2040	<p>strategic planning framework for the integrated development of transport infrastructure and services in the Cork Metropolitan Area, over the next two decades.</p> <p>This Strategy may or may not be directly relevant to the LACAP, however is considered influential in the context of national climate action delivery.</p>	<p>shorter terms and will be able to inform sustainable integrated land use and transport policy formulation at the strategic (Metropolitan Area) level and at the local level.</p>	<p>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>
Greater Dublin Area Cycle Network Plan	<ul style="list-style-type: none"> • Sets out a ten year cycling strategy for Counties Dublin, Kildare, Meath and Wicklow • Plan to increase regions cycle network dramatically • The Plan refers to the EuroVelo International Cycle Route Network of the European Cyclists Federation is a network of 15 long distance cycle routes connecting and uniting the whole European continent. Two of these routes are in Ireland • including EV2 from Galway through Dublin to London, Berlin, Warsaw and Moscow. • This Strategy may or may not be directly relevant to the LACAP, however, is considered influential in the context of national climate action delivery. 	<p>Aims to identify and determine:</p> <ul style="list-style-type: none"> • The Urban Cycle Network at the Primary, Secondary and Feeder level • The Inter-Urban Cycle Network linking the relevant sections of the Urban Network including the elements of the National Cycle Network within the Greater Dublin Area including linkages to key transport locations outside of urban areas such as airports and ports • The Green Route Network being cycle routes for development of tourist, recreational and leisure purposes. 	<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>
Dublin to Galway Greenway Plan	<ul style="list-style-type: none"> • Develop a segregated cycling and walking trail to international standards, extending from Dublin City to Galway which is of a scale that will allow Ireland to harness the potential of an identified growing tourism market for cycling. 	<p>To provide a segregated, substantially off road cycle route from Dublin City to Clifden via Galway City, maximising the use of – where feasible – existing and approved routes and disused railway line corridors and to also use existing plans and/or permitted projects where these have been subject to a consent process that has previously included the carrying out or screening for SEA, EIA and AA.</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</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"> This route forms part of an interconnected National Cycle Network of high quality, traffic free, inter urban routes, which will establish Ireland as a quality international tourism destination for a broad range of associated recreational activities and pursuits. This Strategy may or may not be directly relevant to the LACAP, however, is considered influential in the context of national climate action delivery. 		environmental protection and management.
Local Transport Plans and Strategies	<ul style="list-style-type: none"> Local Transport Plans and Strategies relevant to a particular local authority functional area provide a more granular framework for the delivery of sustainable transport systems in accordance with higher-level plans. 	<ul style="list-style-type: none"> To promote sustainable transport. To promote integrated and proper transport planning. To promote safe travel. To promote the active travel infrastructural development. To encourage modal shift. 	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Water Quality Management Plans	<ul style="list-style-type: none"> Ensure that the quality of waters covered by the plan is maintained. Maintain and improve the quantity and quality of water included in the Plan scope. 	<ul style="list-style-type: none"> Monitoring of water bodies against quality standards. Outlines management programmes for water catchments. Purpose is to maintain and improve the quantity and quality of groundwater. 	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
NPWS Conservation Plans and/or Conservation Objectives for SACs and SPAs	<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>
Groundwater Protection Schemes	<p>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.</p>	<p>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.</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>
Local Economic and Community Plans (LECP)	<p>The overarching vision for each LECP is: “to promote the well-being and quality of life of citizens and communities”</p>	<p>The purpose of the LECP, as provided for in the Local Government Reform Act 2014, is to set out, for a six-year period, the objectives and actions needed to promote and support the economic development and the local and community development of the relevant local authority area, both by itself directly and in partnership with other economic and community development stakeholders.</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
Development Plans, Local Area Plans, Planning Schemes	<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.
Green Infrastructure Plans/Strategies	<ul style="list-style-type: none"> • Promotes the maintenance and improvement of green infrastructure in an area. • Aims to protect and enhance biodiversity and habitats. 	Not applicable	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Biodiversity Action Plans	Aims to protect, conserve, enhance and restore biodiversity and ecosystem services across all spectrums.	<ul style="list-style-type: none"> • Outlines the status of biodiversity and identifies species of importance. • Outlines objectives and targets to be met to maintain and improve biodiversity. • Aims to increase awareness. 	Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Heritage Plans	Aims to highlight the importance of heritage at a strategic level.	<ul style="list-style-type: none"> • Manage and promote heritage as well as increase awareness. 	Implementation of the Climate Action Plan needs to comply with all

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"> Aim to conserve and protect heritage. 	<p>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>County Landscape Character Assessments</p>	<p>Characterises the geographical dimension of the landscape.</p>	<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. 	<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>Freshwater Pearl Mussel Sub- Basin Management Plans</p>	<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. 	<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>Local Catchment Flood Risk Management Plans</p>	<ul style="list-style-type: none"> Produced by Local Authorities. Outlines areas local flood risk. Sets out measures to manage and prevent flood risk at a local level. 	<p>Not applicable</p>	<p>Implementation of the Climate Action Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards –</p>

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
			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.
Noise Action Plans	The Noise Action Plans are prepared in accordance with the requirements of the Environmental Noise Regulations 2006, Statutory Instrument 140 of 2006. These Regulations give effect to the EU Directive	<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 	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

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
	<p>2002/49/EC relating to the assessment and management of environmental noise.</p> <p>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>	<ul style="list-style-type: none"> • Address strategic noise issues by requiring competent authorities to draw up action plans to manage noise issues and their effects • Reduce noise, where possible, and maintain the environmental acoustic quality where it is good 	<p>bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection.</p>



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

APPENDIX 2

Scoping 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



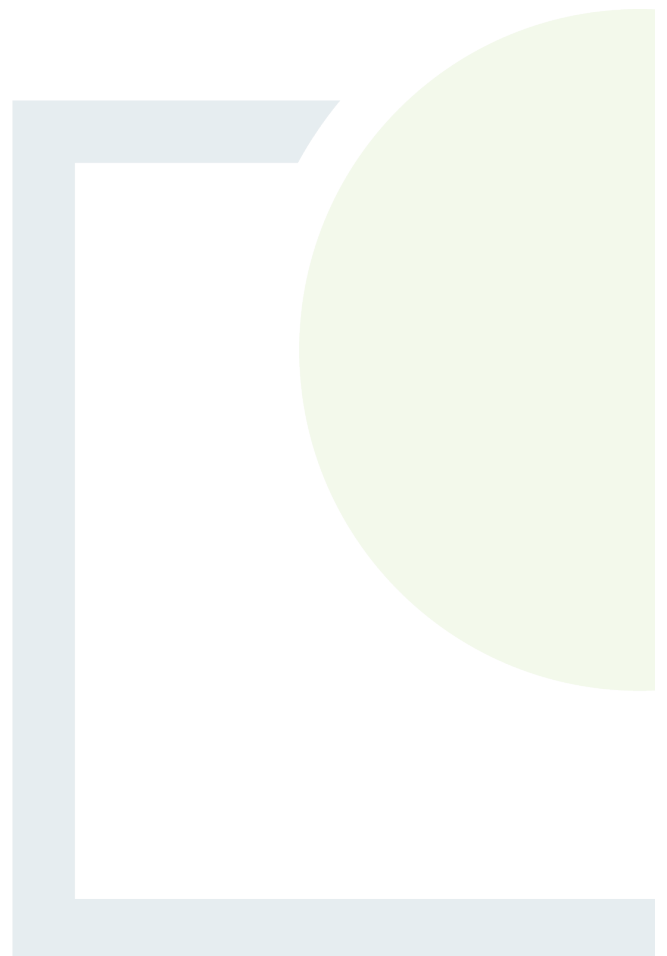
stakeholder platform intended to promote co-operation, knowledge sharing and dialogue between private and public stakeholders in order to accelerate the energy transition in the fisheries and aquaculture sector. This Partnership will help to shape the development of future transitional actions for Ireland's 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.



CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING

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 was 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 LACAP. 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 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 LACAP in accordance with the requirements of the SEA Directive and best practice guidelines. Potential effects of the LACAP on Environmental Components/SEOs have been categorized as follows:

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

The evaluation considers all potential direct, indirect/secondary, cumulative⁶⁸, synergistic⁶⁹, 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 LACAP were measured against is provided in Table 1 overleaf.

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

⁶⁶ Potential Positive Environmental Impacts are defined as having the potential to support the achievement of an SEO.

⁶⁷ Potential Negative Environmental Impacts are defined as having the potential to hinder the achievement of an SEO.

⁶⁸ The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects.

⁶⁹ The addition of effects to create a total effect greater than the sum of the individual effects so that the nature of the final impact is different to the nature of the individual impact.

Table 1 - Strategic Environmental Objectives against which the environmental effects of the LACAP were 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. ⁷⁰
	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 minimize significant impacts on semi-natural habitats, species, environmental features, or other sustaining resources in designated national sites, non-designated locally important sites, and sites proposed for designation; and to comply with the Wildlife Acts 1976-2012 with regard to listed species.
	B5	No net contribution to biodiversity losses or deterioration in response to the biodiversity emergency.
Landscape & 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 minimize effects on local air quality.
	AQN3	Avoid or minimize 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.

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

Environmental Component	SEO Code	Strategic Environmental Objective
	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

Governance & Leadership

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
Strategic Goal	Carlow County Council will show leadership in the area of effective adaptation and mitigation against climate change by developing the appropriate structures and processes for directing and managing Climate Action throughout the organisation and by achieving our Green House Gas reduction target of 51% by 2030.												
Objective	Support the development and implementation of positive climate action across all operations of Carlow County Council and collaborate with others to influence and assist in their endeavours to reduce their negative climate impact.												
G1.1	Carlow County Council will include the reduction of its carbon emissions by 51% by 2030 as mandated in the Climate Action and Low Carbon Development (Amendment) Act 2021 as a key objective of the Corporate Plan, the Annual Service Delivery plan and Municipal District Plans.	The implementation of the action will have no real environmental effect when considered in isolation. The action will serve to promote organisational climate action and the development of climate-positive policies.	0	0	0	0	0	0	0	0	0	0	+
G1.2	Resource and fund dedicated Climate Action Staff to facilitate adaptation against and mitigate for the effects of Climate Change, to include a Climate Co-Ordinator, Climate Action Officer and a Climate Community Officer.	This is an engagement related action. The implementation of the action will have no real environmental effect when considered in isolation. The action will serve to promote organisational climate action and the development of climate-positive policies.	0	0	0	0	0	0	0	0	0	0	+

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
G1.3	Maintain a cross functional Climate Action Team to ensure the embedding of Climate considerations and actions across the range of services provided by Carlow County Council.	This is an engagement related action. The implementation of the action will have no real environmental effect when considered in isolation. The action will serve to promote organisational climate action and the development of climate-positive policies.	0	0	0	0	0	0	0	0	0	0	+
G1.4	Implement Climate Action engagement programme in the workplace for all staff and Elected Members.	This is an engagement related action. The implementation of the action will have no real environmental effect when considered in isolation. The action will serve to promote organisational climate action and the development of climate-positive policies.	0	0	0	0	0	0	0	0	0	0	+
G1.5	Implementation and reporting of the actions in the Climate Action Plan at local and national level.	The implementation of the action will have no real environmental effect when considered in isolation. The action will serve to promote organisational climate action and the development of climate-positive policies.	0	0	0	0	0	0	0	0	0	0	+
G1.6	Mainstream climate mitigation and adaptation considerations into all new policies adopted by Carlow County Council.	The implementation of the action will have no real environmental effect when considered in isolation. The action will serve to promote organisational climate action and the development of climate-positive policies.	0	0	0	0	0	0	0	0	0	0	+
G1.7	Develop a Green Public Procurement (GPP) tracking tool to measure the use of green procurement in tenders issued by Carlow County Council.	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 services 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	+
G1.8	Prepare a Green Procurement Strategy for Carlow County Council to ensure GPP is considered in all tenders.	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 services 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	+

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
G1.9	Prepare Sustainable Development Goal (SDG) guidance document to support the inclusion of the global goals in all plans & strategies published by the local authority.	The implementation of the action will have no real environmental effect when considered in isolation. The action will serve to promote organisational climate action and the development of climate-positive policies.	0	0	0	0	0	0	0	0	0	0	+
G1.10	Develop & implement a Financial Management resource for recording the cost of major climate/weather events	The implementation of the action will have no real environmental effect when considered in isolation. The action will serve to promote organisational climate action and the development of climate-positive policies.	0	0	0	0	0	0	0	0	0	0	+
G1.11	Complete annual energy consumption reporting to the national energy Monitoring and Reporting system (M&R) operated by the Sustainable Energy Authority of Ireland (SEAI)	The implementation of the action will have no real environmental effect when considered in isolation. The action will serve to promote organisational climate action and the development of climate-positive policies.	0	0	0	0	0	0	0	0	0	0	+
G1.12	Provide match funding to enable climate, energy and biodiversity action projects.	This action has the potential to contribute to the creation of slight to significant positive environmental effects on climate, biodiversity, water quality and hydrology, and local air quality. Development supported by this action, such as renewable energy or biodiversity action projects related development could potentially have negative environmental effects.	0	+/-	0	0	0	0	+	+/-	0	0	+
G1.13	Become a Partner in the National Transport Authority administered Smarter Travel Programme and apply for the Smarter Travel Mark which recognises employers who are committed to active & sustainable travel for their workforce	This promotional action will underpin and support the effective delivery of climate action in the community by promoting awareness and understanding of sustainability and climate action related issues. The adoption of this action will support the full realization of the vision and main objectives of the plan in the community.	0	0	0	0	0	0	0	0	0	0	+

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

Built Environment & Transport

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
Strategic Goal	Significantly reduce greenhouse gas emissions in public service provision and support the wider community of Carlow by providing sustainable low or no carbon mobility opportunities.												
Objective	Reduce Carlow County Council's impact on Climate Change through increasing energy efficiency in our buildings reducing reliance on fossil-based fuels in our fleet and influencing the actions of others within our community by increasing resilience through our Housing stock and transport infrastructure.												
B1.1	Conduct Energy Audits across Carlow County Council's Significant Energy Users (SEUs)/Facilities to create a Gap to Target (51%) analysis to inform spending on projects to reduce carbon.	This action will support the local authority in reducing its organizational 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	0	0	+
B1.2	Prepare and implement a carbon savings programme of measures for Council buildings/facilities to assist in achieving a 51% reduction in greenhouse gas emissions by 2030.	<p>This action will support the local authority reducing its organizational 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.</p> <p>There is the potential for light and air pollution during retrofitting works. Retrofitting works may also negatively affect the appropriate conservation of protected structures. Therefore, there is also scope for there to be negative effects if unmitigated.</p>	0	0	0	-	0	0	+/-	0	0	0	+

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
B1.3	Pursue national/regional funding programmes to attain funding for emission reduction measures for Carlow County Council, e.g. Pathfinder	This is a finance related action. The implementation of the action will have no real environmental effect when considered in isolation. The action is generally supportive of renewable energy/energy efficiency projects and may contribute toward achieving GHG emission reductions if successfully implemented.	0	0	0	0	0	0	+	0	0	0	0
B1.4	Complete the National Public Lighting Energy Efficiency Project in County Carlow to reduce the GHG emissions and energy usage of public Lighting.	This action will support the local authority in reducing its organizational 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. The spectrum of light from LED sources has the potential to impact nocturnal species. Therefore, there is also scope for there to be slight negative effects if unmitigated.	0	-	0	0	0	0	+	0	0	0	0
B1.5	Develop planning conditions with specifications and standards to minimise energy use and light pollution from outdoor lighting in all new developments.	This action will support the local authority in reducing its organizational 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	0	0	+
B1.6	Ensure all new build social housing units provided by Carlow County Council are built to meet a minimum A2 Building Energy Rating Standard to reduce GHG emissions, energy consumption and address fuel poverty for vulnerable residents.	This action will support the local authority in preventing the generation of GHG emissions due to the construction and operation of new local authority buildings.	0	0	0	0	0	0	+	0	0	0	0

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
B1.7	Upgrade existing social housing units using the worst first principal to B2 or cost optimal to reduce GHG emissions, energy consumption and contribute to alleviating fuel poverty for vulnerable residents.	<p>This action will support the reduction of Residential sector 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.</p> <p>There is the potential for light and air pollution during retrofitting works. Retrofitting works may also negatively affect the appropriate conservation of protected structures. Therefore, there is also scope for there to be negative effects if unmitigated.</p>	0	-	0	0	0	0	+/-	0	0	0	+
B1.8	Facilitate the upgrade of existing vacant & derelict residential and commercial properties in Carlow Town and County through schemes such as Towns Centre First, Croí Conaithe	<p>This action will support the reduction of Residential and Commercial sector 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.</p> <p>There is the potential for light and air pollution during retrofitting works. Retrofitting works may also negatively affect the appropriate conservation of protected structures. Therefore, there is also scope for there to be negative effects if unmitigated.</p>	0	-	0	0	0	0	+/-	0	0	0	+
B1.9	Identify derelict properties throughout the County and use legislative powers such as Compulsory Purchase Order and compulsory acquisition order to facilitate their reuse.	<p>This action has the potential to support the use of derelict structures which could result in significant negative effects if unmitigated. Any use should ensure correct restoration of derelict structures. 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. This action has the potential to have significant positive effects on population and land use.</p> <p>There is the potential for light and air pollution during retrofitting works. Retrofitting works may also negatively affect the appropriate conservation of protected structures. Therefore, there is also scope for there to be negative effects if unmitigated.</p>	+	-	0	-	0	+	-	0	0	0	0

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
B1.10	Target brownfield, vacancy and dereliction as part of the housing for all programme through repair and lease, buy and renew and SHIP programmes	<p>This action has the potential to create a variety of positive environmental effects. In a climate context, this action has the potential to support the offset embodied GHG emissions associated with the construction of new residential development.</p> <p>This action has the potential to support the use of derelict structures which could result in significant negative effects if unmitigated. Any use should ensure correct restoration of derelict structures. 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. This action has the potential to have significant positive effects on population and land use.</p> <p>There is the potential for light and air pollution during retrofitting works. Retrofitting works may also negatively affect the appropriate conservation of protected structures. Therefore, there is also scope for there to be negative effects if unmitigated.</p> <p>This action may support the carrying out of significant residential development, which may result in a range of slight to significant negative environmental effects in the absence of appropriate design or mitigation, including construction related effects, or effects on traffic and transport, population and human health, land use, or biodiversity</p>	+/-	-	0	-	0	-	+/-	0	0	-	0
B1.11	Review the Major Emergency Plan & Flood Plan to ensure incorporation of climate risk	This action has potential to support improving the effectiveness of major emergency response plans implemented in response to flood events. The action 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.	+	0	0	+	0	0	0	0	0	0	0

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
B1.12	Prepare Carlow County Council guidelines for nature based sustainable drainage solutions	<p>This action has potential to support improving the effectiveness of nature based sustainable drainage solutions. The action 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 and promoting sustainable solutions for the same. The action has the potential to positively impact biodiversity, flora and fauna.</p> <p>The construction of SuDS has the potential to result in some negative environmental effects on water quality (e.g. due to the run-off of soil or cement-based material) or biodiversity (due to works impacting on water quality/aquatic ecology), for example.</p>	+	+/-	0	+	0	0	0	-	0	0	0
T1.1	Appoint a fleet manager and develop a fleet management policy for Carlow County Council Fleet.	The implementation of the action will have no real environmental effect when considered in isolation. The action will serve to promote organisational climate action and the development of climate-positive policies.	0	0	0	0	0	0	0	0	0	0	+
T1.2	Investigate options for a renewable fuel alternative to diesel and the electrification of Council fleet vehicles including delivery of a pilot scheme.	<p>Increasing the level of local authority vehicles that use sustainable sources of energy/fuel will have a slight positive effect on climate.</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> <p>This action has the potential to increase the uptake in Electric Vehicles and will support a modal shift and reduction in vehicle related GHG emissions.</p> <p>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	+

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
T1.3	Develop and Adopt Electric Vehicle Strategy to support the transition to electric vehicle use in the wider community for County Carlow and for the South East Region	<p>This action has the potential to increase the uptake in Electric Vehicles and will support a modal shift and reduction in vehicle related GHG emissions.</p> <p>The expansion of the EV and consequently EV 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.</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	+
T1.4	Deliver active travel projects across the County to encourage use of active travel modes such as walking or cycling.	<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</p>	+	-	0	-	0	0	+/-	-	-	0	+

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
		<p>and impacts on traffic and transport (through the temporary creation of traffic diversions and congestion).</p> <p>The ongoing operation of an active travel 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 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. 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>											
T1.5	Complete Transport Plans for Carlow Town, Tullow & Muine Bheag	<p>The implementation of the action will have no real environmental effect when considered in isolation (i.e. the development of the plans themselves).</p> <p>The implementation of transport plans has the potential to create a variety of slight to very significant positive and negative environmental effects in each of these settlements, including effects on existing traffic and transport conditions, population and human health, land use, tourism and recreation, and construction related impacts associated with development related action contained in the plans, including noise, dust, water quality, biodiversity and traffic congestion related impacts.</p>	-	-	0	0	0	-	-	-	-	-	0

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

Natural Environment & Green Infrastructure

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
Strategic Goal	Protect and enhance Carlow's green and blue spaces to support biodiversity, mitigate climate change impacts, lower risks of disasters, and enhance health and well-being for all.												
Objective	Carlow County Council will facilitate and support protection, management and enhancement of the natural heritage, biodiversity, landscape and environment of County Carlow in recognition of its importance as a non-renewable resource, a unique identifier, and as a natural resource asset.												
NE1.1	Appoint a Biodiversity Officer for Carlow County Council and implement actions contained in the County Carlow Biodiversity Action Plan 2023-2025	The implementation of this action is likely to generate some degree of positive effects for biodiversity, flora and fauna.	0	+	0	0	0	0	0	0	0	0	0
NE1.2	Implement the actions set out in the County Carlow Green Infrastructure Strategy	This action will promote the protection and further development of green infrastructure. The protection and development of green infrastructure has the potential to have wide ranging slight to very significant positive effects on biodiversity, and slight to significant positive effects on tourism and recreation amenity and water quality and hydrology. In absence of appropriate design and mitigation, the development of green infrastructure could potentially result in negative environmental effects, including negative construction related effects, negative effects on biodiversity or negative effects on cultural heritage assets.	0	+/-	0	-	0	0	0	+	0	+	0
NE1.3	Prepare guidelines for Invasive Alien Species Management	The implementation of this action is likely to generate some degree of positive effects for biodiversity, flora and fauna.	0	+	0	0	0	0	0	0	0	0	0

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
NE1.4	Develop and implement a policy for the use of chemical pesticides and herbicides for areas managed by Carlow County Council.	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. The negative environmental effect of the continued use of such substances is potentially significant, given the hazardous properties of these substances.	0	+	0	0	+	0	0	+	0	0	0
NE1.5	Prepare a Hedge and Road Verge Maintenance Strategy for Carlow County Council	This action has the potential to have wide ranging slight to moderate significant effects on local biodiversity, and slight to significant effects on landscape character and visual amenity. Promoting vegetative growth may result in an additional degree of carbon sequestration, marginally offsetting the effects of GHG emissions. Inappropriate or improper hedgerow maintenance could lead to negative environmental impacts on biodiversity and flora and fauna species present in such hedgerows.	0	-	+	0	0	0	+	0	0	0	0
NE1.6	Develop and implement a Heritage Plan to record, conserve, and raise awareness of all aspects of built, natural and cultural heritage in the County ensuring climate change is factored into the plans development.	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. The action will generate positive biodiversity and cultural heritage related effects.	0	+	0	+	0	0	+	0	0	0	+
NE1.7	Undertake a risk assessment of the Heritage and Cultural Assets under the remit of Carlow County Council to assess the vulnerability and the risk to the historical environment from the impacts of climate change and to help build resilience to these important assets.	This action will support the protection of architectural/archaeological assets from climate change risks. It has the potential to have slight to significant, positive effects on cultural heritage and architectural assets.	0	0	0	+	0	0	0	0	0	0	0
NE1.8	Develop a Tree Strategy to provide the vision and direction for long-term planning, planting, protection and maintenance of trees, hedgerows and	This action has the potential to have wide ranging slight to moderate significant effects on local biodiversity, and slight to significant effects on landscape character and visual amenity. Promoting vegetative growth may result	0	+	+	0	0	0	+	0	0	0	+

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
	woodlands within Carlow Town and County	in an additional degree of carbon sequestration, marginally offsetting the effects of GHG emissions.											
NE1.9	Investigate the feasibility of developing a Carlow County Council Garden nursery facilitating self-sufficiency by providing all new plants for public realm enhancement.	This action has the potential to have wide ranging slight to moderate significant effects on local biodiversity, and slight to significant effects on landscape character and visual amenity. Promoting vegetative growth may result in an additional degree of carbon sequestration, marginally offsetting the effects of GHG emissions.	0	+	+	0	0	0	+	0	0	0	+

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

Communities: Resilience & Transition

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
Strategic Goal	Maximise a broader societal increase in active participation supporting the transition of our County to a climate resilient community.												
Objective	Carlow County Council will inform, influence, empower and support the community of Carlow to developing and implementing their local Climate Action measures.												
C1.1	Develop countywide climate-related educational and awareness programme to include information events, communication campaigns and guidance documentation	This promotional action will underpin and support the effective delivery of climate action in the community by promoting awareness and understanding of sustainability and climate action related issues. The adoption of this action will support the full realization of the vision and main objectives of the plan in the community.	0	0	0	0	0	0	0	0	0	0	+
C1.2	Implement the Community Climate Action Fund to engage communities in localised Climate Action Projects	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	0	+
C1.3	Include 'Sustainability and Climate Change' assessment on applicable grant assessments to ensure that community groups/stakeholders consider and incorporate Climate Mitigation and Adaptation in all their grant funded activities.	This is a financial action. This action will underpin and support the effective delivery of climate action in the community by promoting awareness and understanding of sustainability and climate action related issues. The adoption of this action will support the full realization of the vision and main objectives of the plan in the community.	0	0	0	0	0	0	0	0	0	0	+
C1.4	Ensure that all residents of Carlow, young and old, have opportunities to meaningfully engage in and shape the development of climate action policies and projects delivered by Carlow County Council	This promotional action will underpin and support the effective delivery of climate action in the community by promoting awareness and understanding of sustainability and climate action related issues. The adoption of this action will support the full realization of the vision and main objectives of the plan in the community.	0	0	0	0	0	0	0	0	0	0	+

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
C1.5	Develop a Green Festivals & Events Strategy	<p>This promotional action will underpin and support the effective delivery of climate action in the community by promoting awareness and understanding of sustainability and climate action related issues. The adoption of this action will support the full realization of the vision and main objectives of the plan in the community.</p> <p>This action has the potential to have wide ranging slight to very significant positive effects on biodiversity, and slight to significant positive effects on tourism and recreation amenity.</p> <p>If unmitigated, festivals and events can have negative impacts on the water quality, waste generation, soil, noise, energy use, GHG emissions, etc.</p>	0	0	0	0	0	0	0	0	0	0	+
C1.6	Develop Community Garden Guidelines to promote sustainable community gardening in Carlow	<p>This action has the potential to have wide ranging slight to moderate significant effects on local biodiversity, and slight to significant effects on landscape character and visual amenity. Promoting vegetative growth may result in an additional degree of carbon sequestration, marginally offsetting the effects of GHG emissions.</p>	0	+	+	0	0	0	+	0	0	0	0
C1.7	Develop and adopt a community Garden & Allotment Policy for Carlow County Council	<p>This action has the potential to have wide ranging slight to moderate significant effects on local biodiversity, and slight to significant effects on landscape character and visual amenity. Promoting vegetative growth may result in an additional degree of carbon sequestration, marginally offsetting the effects of GHG emissions.</p>	0	+	+	0	0	0	+	0	0	0	0
C1.8	Partner with research institutions such as SETU and Carlow College to explore innovative climate adaptation and mitigation research projects.	<p>This is a study-based action. Depending on the outcome of the study, this action could potentially create some environmental benefits.</p>	0	0	0	0	0	0	0	0	0	0	0

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
C1.9	Provide a point of contact to assist local organisations collaborating to implement projects which contribute to the objectives of a National climate initiative. E.G GAA green club programme.	<p>This promotional/engagement action will underpin and support the effective delivery of climate action in the GAA community by promoting awareness and understanding of climate action related issues. The adoption of this action will support the full realization of the vision and main objectives of the plan in the community.</p> <p>This action will support the promotion of good environmental management at GAA Clubs and has the potential to generate some degree of positive effects on biodiversity and climate.</p>	0	+	0	0	0	0	0	0	0	0	+
C1.10	Provide dedicated Climate Action information on Carlow County Council's website WWW.Carlow.ie	<p>This promotional action will underpin and support the effective delivery of climate action in the community by promoting awareness and understanding of sustainability and climate action related issues. The adoption of this action will support the full realization of the vision and main objectives of the plan in the community.</p>	0	0	0	0	0	0	0	0	0	0	+

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

Sustainability & Resource Management

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
Strategic Goal	Create a culture of sustainability, supporting the circular economy, within Carlow County Council and support broader society in Carlow in understanding and achieving same.												
Objective	Carlow County Council will implement and monitor a range of policies and practices to reduce our environmental impact, enhance resource efficiency, and create long term economic and social benefits.												
SRM1.1	Develop and Implement an annual environmental awareness campaign incorporating the objectives of the National Waste Management Plan for a Circular Economy	This promotional action will underpin and support the effective delivery of circularity and climate action in the community by promoting awareness and understanding of sustainability and climate action related issues. The adoption of this action will support the full realization of the vision and main objectives of the plan in the community.	0	0	0	0	0	0	0	0	0	0	+
SRM1.2	Develop sustainability guidelines for corporate events supported, facilitated and organised by Carlow County Council	This action will support the local authority in reducing its organizational 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	0	0	+
SRM1.3	Regulate and enforce the National Enforcement Priorities (NEPs) which focus on delivering positive environmental outcomes for air quality, water quality and waste management. This includes over 2,000 different environmental inspections in Carlow annually.	This action has the potential to contribute to the creation of slight to significant positive environmental effects on climate, biodiversity, water quality and hydrology, and local air quality. When undertaking environmental inspections throughout the County, the use of ICE based vehicles will contribute to GHG emissions and local air quality impacts.	0	+	0	0	0	0	+	+	0	0	+

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
SRM1.4	Develop and provide a series of green & climate-based workshops for owner managers of indigenous Carlow companies	This action will support Commercial sector related 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	0	0	+
SRM1.5	Provide assistance to Enterprises in their investment in equipment & technologies to reduce their impact on the environment	This action will support Commercial sector related 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	0	0	+
SRM1.6	Provide Energy Management Training programmes to businesses in Carlow to help them reduce their carbon footprint	This action will support Commercial sector related 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	0	0	+
SRM1.7	Deliver programmes to assist businesses in Carlow improve the environmental profile of their business in the marketplace	This action will support Commercial sector related 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	0	0	+

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
SRM1.8	Increase awareness and practice of regenerative tourism in our County, to enable visitors to have a positive impact on their holiday destination.	This promotional action will underpin and support the effective delivery of climate action in the community by promoting awareness and understanding of sustainability and climate action related issues. The adoption of this action will support the full realization of the vision and main objectives of the plan in the community. This action has the potential to have wide ranging slight to very significant positive effects on biodiversity, and slight to significant positive effects on tourism and recreation amenity and water quality and hydrology.	0	+	0	0	0	0	+	+	0	0	+
SRM1.9	Increase the range of Carlow County Council services available on an online platform.	This action broadly supports the ambition to reduce ICE vehicle use (associated with service users attending local authority offices), which can result in transport emission reductions and positive effects on climate and local air quality.	0	0	0	0	0	0	+	0	0	0	+
SRM1.10	Carry out a feasibility study to identify the logistical, financial, and market challenges of a proposed district heating project in Carlow	This is a study-based action. Depending on the outcome of the study, this action could potentially lead to development that has a positive effect on the climate and local air quality environments. In the absence of any mitigation, development that this study could lead onto, which could include extensive pipe laying works, could potentially have a variety of significant, negative environmental effects, including effects on water quality, biodiversity, flora and fauna; the receiving air environment (due to the generation of construction dust), the receiving noise environment (due to the generation of construction phase noise), and the receiving human environment.	-	-	0	0	0	0	+/-	-	0	0	+
SRM1.11	Appointment of an Energy Officer for Carlow County Council	This resourcing-based action will support the local authority in reducing its organizational GHG emissions in line with climate policy and legislation and emission reduction targets.	0	0	0	0	0	0	0	0	0	0	+

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
SRM1.12	Conduct a review of all Local Authority offices to maximise use and reduce carbon footprint	This action will support the local authority in reducing its organizational 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	0	0	+
SRM1.13	Incorporate Climate Action in the Library Development Plan 2024-2029	This action will support the local authority in reducing its organizational 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	0	0	+

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

Decarbonising Zone

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
DZ1.1	Establish a Decarbonising Zone working group comprising of representation from Public Bodies/ Government Agencies, Business, Utility/ Infrastructure providers, Transport providers, Education Facilities, Private Sector.	The implementation of the action will have no real environmental effect when considered in isolation. The action will serve to promote organisational climate action and the development of climate-positive policies.	0	0	0	0	0	0	0	0	0	0	+
DZ1.2	Prepare a register of opportunities outlining projects that will aid carbon reduction in the Decarbonising Zone	The implementation of the action will have no real environmental effect when considered in isolation. The action will serve to promote organisational climate action and the development of climate-positive policies.	0	0	0	0	0	0	0	0	0	0	+
DZ1.3	Carry out a geothermal feasibility study in Carlow Town to determine the technical and financial viability of a geothermal energy project.	This is a study-based action. Depending on the outcome of the study, this action could potentially lead to development that has a positive effect on the climate and local air quality environments In the absence of good design and appropriate design such a project could lead to unintended environmental impacts, including slight to significant negative effects on water quality, soils, hydrogeology, biodiversity and sensitive human receptors.	-	-	0	0	-	0	+	-	0	0	+
DZ1.4	Provide a central location, Mobility Hub, which facilitates linkages between various low carbon transport options from Carlow Town centre.	The development of infrastructure associated with a transport mobility hub 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	0
DZ1.5	Reduce private car dependency through the expansion of sustainable	In the absence of any mitigation, works involved in developing mobility infrastructure have the potential to	+	-	0	0	0	0	+/-	-	0	0	0

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
	shared mobility infrastructures and schemes for Carlow Town	generate a range of slight to significant environmental effects, including noise impacts, local air quality impacts (through the generation of construction dust), impacts on water quality (through the run-off of silt and cement based products during construction), and biodiversity impacts. The delivery of 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.											
DZ1.6	Provide improved pedestrian and cycle links to Carlow Bus Park and Carlow Train Station.	In the absence of any mitigation, works involved in the updating of road space have the potential to generate a range of slight to significant environmental effects, including noise impacts, local air quality impacts (through the generation of construction dust), impacts on water quality (through the run-off of silt and cement based products during construction), and biodiversity impacts. The delivery of 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	0	0
DZ1.7	Increase spatial awareness of town centre through the development of a town map highlighting journey times using various modes of transport to include walking, cycling, bus, car and others.	This action has potential to improve the quality of sustainable/active travel networks in the DZ functional area and promote the use of sustainable and healthy modes of transport - which help realize the potential positive environmental effects associated with sustainable/active travel.	0	0	0	0	0	0	0	0	0	0	+
DZ1.8	Implement and monitor a pilot anti-idling campaign to enable improvement in air quality	This promotional action will underpin and support the effective delivery of climate action in the community by promoting awareness and understanding of sustainability	0	0	0	0	0	0	+	0	0	0	+

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
		and climate action related issues. The adoption of this action will support the full realization of the vision and main objectives of the plan in the community. This action could lead to some degree of GHG emission reductions and local air quality improvements.											
DZ1.9	Develop and execute pilot rain water harvesting scheme on Local Authority owned buildings	The promotion of rainwater harvesting will support a slight to moderate reduction in water use at local authority owned buildings. This action may have a slight positive effect on material assets - through the reduction of water supply system demand. The effective reduction of water demand has the potential to marginally reduce the levels of lifecycle GHG emissions associated with water treatment and distribution.	0	0	0	0	0	0	0	+	+	0	0
DZ.10	Promote the awareness and understanding of the UN Sustainable Development Goals through thematic designs in public realm projects, e.g. roundabouts scheme.	This promotional action will underpin and support the effective delivery of climate action in the community by promoting and awareness and understanding of sustainability and climate action related issues. The adoption of this action will support the full realization of the vision and main objectives of the plan in the community.	0	0	0	0	0	0	0	0	0	0	+
DZ1.11	Advance Urban Regeneration and Development Fund (URDF) projects to achieve the Carlow 2040 plan.	This action has the potential to create a variety of positive environmental effects. In a climate context, this action has the potential to support the offset embodied GHG emissions associated with the construction of new residential development. This action has the potential to support the use of derelict structures which could result in significant negative effects if unmitigated. Any use should ensure correct restoration of derelict structures. 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. This action has the potential to have significant positive effects on population and land use. There is the potential for light and air pollution during retrofitting works. Retrofitting works may also negatively affect the appropriate conservation of protected structures. Therefore, there is also scope for there to be negative effects if unmitigated. This action may support the carrying out of significant urban development, which may result in a range of slight to	+/-	-	0	-	0	-	+/-	0	-	0	0

Action Ref.	LACAP Action	Potential Environmental Effects	PHH	BFF	L	CH	S	LU	AQN	W	MA	TR	CC
		significant negative environmental effects in the absence of appropriate design or mitigation, including construction related effects, or effects on traffic and transport, population and human health, land use, or biodiversity											

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



**CONSULTANTS IN ENGINEERING,
ENVIRONMENTAL SCIENCE
& PLANNING**

www.fehilytimoney.ie

 **Cork**

 **Dublin**

 **Carlow**

