

SEA ENVIRONMENTAL REPORT

FOR THE

DRAFT CARLOW-GRAIGUECULLEN JOINT URBAN LOCAL AREA PLAN 2024-2030

for: Carlow and Laois County Councils



by: CAAS Ltd.



DECEMBER 2023

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List of Abbreviations

AA	Appropriate Assessment
CAFE	Cleaner Air for Europe
CFRAM	Catchment Flood Risk Assessment and Management
CORINE	Co-ORDinated INformation on the Environment
CSO	Central Statistics Office
DAFM	Department of Agriculture, Food and Marine
DCCAIE	Department of Communication, Climate Action and Environment
DCHG	Department of Culture, Heritage and the Gaeltacht
DEHLG	Department of the Environment, Heritage and Local Government
DHPLG	Department of Housing, Planning and Local Government
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency
EQS	Environmental Quality Standard
ELVs	Emission Discharge Values
EU	European Union
GFC	Gross Final Consumption
GSI	Geological Survey of Ireland
JULAP	Joint Urban Local Area Plan
LCA	Landscape Character Assessment
NHA	Natural Heritage Area
NIAH	National Inventory of Architectural Heritage
NTA	National Transport Authority
OPW	Office of Public Works
pNHA	proposed Natural Heritage Area
PAS	Priority Action Substance
RAL	Remedial Action List
RBD	River Basin District
RBMP	River Basin Management Plan
RMP	Record of Monuments and Places
RPA	Register of Protected Areas
RSES	Regional Spatial and Economic Strategy
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SEO	Strategic Environmental Objective
SI No.	Statutory Instrument Number
SPA	Special Protection Area
SuDS	Sustainable urban Drainage systems
WHO	World Health Organisation
WFD	Water Framework Directive
WRZ	Water Resource Zone

Glossary

Appropriate Assessment

The obligation to undertake Appropriate Assessment (AA) derives from Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC. AA is a focused and detailed impact assessment of the implications of a strategic action (such as a plan or programme) 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.

Biodiversity and Flora and Fauna

Biodiversity is the variability among living organisms from all sources including inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems' (United Nations Convention on Biological Diversity 1992).

Flora is all the plants found in a given area.

Fauna is all the animals found in a given area.

Environmental Problems

Annex I of Directive 2001/42/EC of the European Parliament and of the Council of Ministers, of 27th June 2001, on the assessment of the effects of certain Plans and programmes on the environment (the Strategic Environmental Assessment Directive) requires that information is provided on 'any existing environmental problems which are relevant to the plan or programme', thus, helping to ensure that the proposed strategic action does not make existing environmental problems worse.

Environmental problems arise where there is a conflict between current environmental conditions and ideal targets. If environmental problems are identified at the outset, they can help focus attention on important issues and geographical areas where environmental effects of the plan or programme may be likely.

Environmental Vectors

Environmental vectors are environmental components, such as air, water or soil, through which contaminants or pollutants, which have the potential to cause harm, can be transported, coming into contact with human beings.

Mitigate

To make or become less severe or harsh.

Mitigation Measures

Mitigation measures are measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse impacts on the environment of implementing a human action, be it a plan, programme or project. Mitigation involves ameliorating significant negative effects. Where there are significant negative effects, consideration should be given in the first instance to preventing such effects or, where this is not possible, to lessening or offsetting those effects. Mitigation measures can be roughly divided into those that: avoid effects; reduce the magnitude or extent, probability and/or severity of effects; repair effects after they have occurred; and compensate for effects, balancing out negative impacts with other positive ones.

In the context of Article 6 of the Habitats Directive, mitigation measures are clearly distinguished from compensatory measures. Compensatory measures are intended to offset the negative effects of the plan or project so that the overall ecological coherence of the Natura 2000 Network is maintained.

Natural Heritage

The Heritage Act (1995) defines natural heritage as including flora, fauna, wildlife habitats, landscapes, seascapes, wrecks, geology, inland waterways, heritage gardens and parks.

Protected Structure

Protected Structure is the term used in the Planning and Development Act 2000 (as amended) and associated Regulations (as amended) to define a structure included by a planning authority in its Record of Protected Structures. Such a structure shall not be altered or demolished in whole or part without obtaining planning permission or confirmation from the planning authority that the part of the structure to be altered is not protected.

Recorded Monument

A monument included in the list and marked on the map which comprises the Record of Monuments and Places that is set out county by county under Section 12 of the National Monuments (Amendment) Act, 1994 by the Archaeological Survey of Ireland. The definition includes Zones of Archaeological Potential in towns and all other monuments of archaeological interest which have so far been identified. Any works at or in relation to a recorded monument requires two months' notice to the Department of Culture, Heritage and the Gaeltacht under Section 12 of the National Monuments (Amendment) Act, 1994.

Scoping

Scoping is the process of determining what issues are to be addressed, and setting out a methodology in which to address them in a structured manner appropriate to the plan or programme. Scoping is carried out in consultation with appropriate environmental authorities.

Strategic Environmental Assessment (SEA)

Strategic Environmental Assessment (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.

Strategic Environmental Objective (SEO)

Strategic Environmental Objectives (SEOs) are methodological measures developed from policies which generally govern environmental protection objectives established at International, Community or Member State level and are used as standards against which the provisions of the Plan and the alternatives can be evaluated in order to help identify which provisions would be likely to result in significant environmental effects and where such effects would be likely to occur, if - in the case of adverse effects - unmitigated.

Section 1 SEA: Introduction and Benefits

1.1 Introduction

This is the Strategic Environmental Assessment (SEA) Environmental Report for the Carlow-Graiguecullen Joint Urban Draft Local Area Plan (JULAP) 2024-2030. It has been undertaken by CAAS Ltd. on behalf of Carlow and Laois County Councils. The purpose of this report is to provide a clear understanding of the likely environmental consequences of decisions regarding the adoption and implementation of the Plan.

Environmental assessment is a procedure that ensures that the environmental implications of decisions are taken into account before such decisions are made. *Environmental Impact Assessment*, or EIA, is generally used for describing the process of environmental assessment for individual projects, while *Strategic Environmental Assessment* or SEA is the term which has been given to the environmental assessment of plans and programmes, which help determine the nature and location of individual projects taking place. SEA is a systematic process of predicting and evaluating the likely significant environmental effects of implementing a proposed plan or programme, in order to ensure that these effects are adequately addressed at the earliest appropriate stages of decision-making in tandem with economic, social and other considerations.

The SEA has been undertaken in order to comply with the European SEA Directive¹, which introduced the requirement that SEA be carried out on plans and programmes that are prepared for a number of sectors, including land use planning.

¹ Directive 2001/42/EC of the European Parliament and of the Council of Ministers, of 27th June 2001, on the assessment of the effects of certain plans and programmes on the environment, transposed into Irish Law through the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (SI No. 435 of 2004), as amended by the European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (SI No. 200 of 2011), and the Planning and Development (SEA) Regulations 2004 (SI No. 436 of 2004), as amended by the Planning and Development (SEA) (Amendment) Regulations 2011 (SI No. 201 of 2011).

1.2 Implications for the Planning Authority

SEA identifies the likely significant environmental effects of implementing the Plan. The findings of the SEA are expressed in this Environmental Report, which accompanies the Draft Plan on public display and identifies how environmental considerations were integrated into the Plan and how alternatives for the Plan were considered. This report may be updated in order to take account of recommendations contained in submissions and/or in order to take account of any changes which are made to the Draft Plan on foot of submissions.

The planning authority must take into account the findings of this report and other related SEA output during their consideration of the Draft Plan and before it is adopted.

When the Draft Plan is finalised, an SEA Statement must be prepared which will summarise, inter alia, how environmental considerations have been integrated into the Plan.

1.3 Why SEA? The Benefits

SEA is the planning authority's and the public's guide to what are generally the best areas for development in the town.

SEA enables the planning authority to direct development towards robust, well-serviced and connected areas in the town – thereby facilitating the general avoidance of incompatible development in the most sensitive, least well-serviced and least well-connected areas, in the town and beyond.

SEA provides greater certainty to the public and to developers. Plans are more likely to be adopted without delays or challenges and planning applications are more likely to be granted permission. Environmental mitigation is more likely to cost less.

The Plan directs incompatible development away from the most sensitive areas in the town and focuses on directing compact, sustainable development within the existing envelope of the Plan area. Development of these generally more robust, well-serviced and well-connected areas of the town will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation.

Compact development can be accompanied by placemaking initiatives to enable the town to become a more desirable place to live – so that it maintains populations and services.

Compatible sustainable development in the town's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

Section 2 The Draft Plan

2.1 Introduction and Content

A mandatory Local Area Plan is required for Carlow Town having regard to Section 19 of the Planning and Development Act 2000 (as amended), which states that a Local Area Plan is required to be prepared in respect of an area that is:

- Designated as a town in the most recent census;
- Has a population in excess of 5,000; and,
- Is situated in the functional area of the planning authority which is the county council.

Carlow-Graiguecullen is a designated Key Town with a recorded population in excess of 27,000 in 2022. In accordance with Section 18(2) of the Act, Carlow County Council and Laois County Council are collaborating in the preparation of the Joint Urban Draft Local Area Plan (JULAP).

The Draft JULAP addresses spatial planning in the Carlow-Graiguecullen area and identifies the various social, economic, and environmental issues of relevance. Policies, objectives, and related provisions are outlined to guide future development in accordance with the proper planning and sustainable development of the area.

2.2 Form and Content of the Plan

The Draft Plan comprises a written statement and combined land use zoning map encompassing Carlow Town, Carlow Town Environs, and Graiguecullen. The land use zonings for Carlow Town (i.e., former Carlow Town Council area), were adopted in May 2022 as part of the preparation of the Carlow County Development Plan 2022-2028 and have been reflected in the Draft Plan.

The written statement and supporting maps comprise the primary policy document for the Draft JULAP and is set out over 12 Chapters as follows:

- Chapter 1 - Plan Review and Context
- Chapter 2 - Carlow-Graiguecullen Strategic Planning and Vision
- Chapter 3 - Core Strategy and Housing
- Chapter 4 - Economic Development, Retail and Tourism
- Chapter 5 - Urban Design, Town Centre and Regeneration
- Chapter 6 - Sustainable Travel and Transportation
- Chapter 7 - Infrastructure and Environmental Services
- Chapter 8 - Sustainable Communities
- Chapter 9 - Built Heritage
- Chapter 10 - Natural Heritage and Amenity
- Chapter 11 - Climate Action
- Chapter 12 - Land Use Zoning Objectives and Implementation

The Draft JULAP includes appendices and associated environmental reports i.e., this SEA Environmental Report, an Appropriate Assessment Natura Impact Report, and a Strategic Flood Risk Assessment. An Area Based Transport Assessment has also been prepared for the Urban Area. These documents complement and contribute to the evidence-led approach to the formulation of the written statement and supporting maps. In the event of any conflict or ambiguity between what is contained within the Written Statement and the supporting maps, the Written Statement shall take precedence. In the full interpretation of all policies and objectives for Carlow-Graiguecullen, it is essential that both the Carlow and Laois County Development Plans, as overarching policy documents, are read in tandem with the Draft Plan. Where conflicting policies and objectives arise between these County Development Plans and the JULAP, the policies and objectives of the County Development Plans, as they apply to lands in the functional area of County Carlow or County Laois, shall take precedence.

2.3 Vision and Strategic Objectives

The Vision for the Plan is: "To ensure that Carlow-Graiguecullen maximises and builds on

its Key Town designation, strategic accessible location, regional and inter-regional connectivity, and existing inherent strengths, prioritising quality of life considerations, the economic and employment potential of the town, town centre led urban regeneration, focusing on a low carbon and compact pattern of development, while seeking to conserve and enhance the town's existing natural and built heritage assets."

To contribute to the delivery of this vision and in order to maximise on the designation of the urban area as a Key Town a number of cross-cutting strategic objectives and priorities have been identified. These are intended to guide the future growth of the joint urban area in accordance with proper planning and sustainable development. They have been formulated to reflect and build on the town's attributes, while also taking account of key issues and challenges into the future. The Plan's Strategic Objectives are as follow:

- SO. 1: Encourage and support town centre led urban regeneration for Carlow-Graiguecullen, focusing on the appropriate redevelopment and reuse of key derelict, vacant and underutilised sites and buildings, the consolidation of the town through the use of brownfield, infill and backland sites, the conservation of historic building stock, and the implementation of streetscape and public realm improvements.
- SO. 2: Encourage and facilitate balanced economic development and employment opportunities in Carlow-Graiguecullen, ensuring a vibrant local economy that maximises business and investment opportunities and the existing economic attributes of the town, and supports the development of a diverse range of economic sectors.
- SO. 3: Improve the public realm and attractiveness of Carlow-Graiguecullen through the delivery of high-quality urban design outcomes, taking account of the need to respond to the social and physical characteristics of the existing built environment and those features that should be protected and/or enhanced by, and inform, new development.
- SO. 4: Prioritise integrated transport and land use, supported by investment in public transport, active travel networks and shared, low-carbon mobility options, which will improve people's travel choices and support safe, sustainable, and healthy lifestyles.
- SO. 5: Promote Carlow-Graiguecullen as a priority location for regional level community and social infrastructure and support the expansion and enhancement of existing community facilities, the provision of residential development, and a range of new community facilities in tandem with population growth to meet the needs of future residents in the joint urban area.
- SO. 6: Transition Carlow-Graiguecullen to a low-carbon and climate resilient town through a combination of effective mitigation and adaptation measures, in addition to maximising opportunities for energy efficiency, renewables, and decarbonisation.
- SO. 7: Manage the development of Carlow-Graiguecullen in a manner that protects, conserves, and enhances the natural and built heritage of the area.
- SO. 8: Support the development of, and investment in new and existing arts, culture and tourism infrastructure and amenities in Carlow-Graiguecullen.

2.4 Strategic work undertaken by the Councils to ensure contribution towards environmental protection and sustainable development

Far in advance of the placing of the Draft Plan on public display, Carlow and Laois County Councils undertook various works in order to inform the preparation of the Plan.

Strategic work undertaken by the Councils includes background work in relation to Plan provisions, including those relating to:

- Core Strategy and Housing;
- Economic Development, Retail and Tourism;

- Urban Design, Town Centre and Regeneration;
- Sustainable Travel and Transportation;
- Infrastructure and Environmental Services;
- Sustainable Communities;
- Built Heritage;
- Natural Heritage Green Infrastructure and Landscape;
- Climate Action; and
- Use Zoning and Implementation.

The undertaking of the SEA process was part of this strategic work and contributed towards the integration of environmental considerations into individual Plan provisions as detailed in Section 9 of this report.

2.5 Relationship with other relevant Plans and Programmes

It is acknowledged that many of the major issues affecting Carlow-Graiguecullen's development are contingent on national policy and government funding.

The Draft Plan sits within a hierarchy of statutory documents setting out public policy for, among other things, land use planning, infrastructure, sustainable development, tourism, environmental protection and environmental management. The Plan must comply with relevant higher-level strategic actions and will, in turn, guide lower-level strategic actions. These documents include plans and programmes such as those detailed in Appendix I² (see also, Section 4 "Environmental Baseline", Section 5 "Strategic Environmental Objectives", Section 6 "Description of Alternatives" and Section 9 "Mitigation Measures"). These documents have been subject to their own environmental assessment processes, as relevant.

The National Planning Framework sets out Ireland's planning policy direction for the years 2018-2040. The National Planning Framework is to be implemented through Regional Spatial and Economic Strategies and lower tier Development Plans and Local Area Plans. The

Regional Spatial and Economic Strategy for the Eastern and Midland Region and the Southern Region set out objectives for land use planning, tourism, infrastructure, sustainable development, environmental protection and environmental management that have been subject to environmental assessment and must, as relevant and appropriate³, be implemented through the Carlow and Laois County Development Plans, that set out the overarching development strategy for the counties, and the Local Area Plan.

In order to be realised, projects included in the Local Area Plan (in a similar way to other projects from any other sector) will have to comply, as relevant, with various legislation, policies, plans and programmes (including requirements for lower-tier Appropriate Assessment, Environmental Impact Assessment and other licencing requirements as appropriate) that form the statutory decision-making and consent-granting framework.

² Appendix I is not intended to be a full and comprehensive review of EU Directives, the transposing regulations or the regulatory framework for environmental protection and management. The information is not exhaustive and it is recommended to consult the Directive, Regulation, Plan or Programme to become familiar with the full details of each.

³ Carlow-Graiguecullen includes the functional area of two local authorities and two regional assemblies. The area of the town around Graiguecullen in County Laois is in the functional area of the Eastern and Midland Region, while the greater area of Carlow Town within County Carlow is located with the Southern Region.

Section 3 SEA Methodology

3.1 Introduction to the Iterative Approach

Figure 3.1 provides an overview of the integrated Plan preparation, SEA, Appropriate Assessment (AA) and Strategic Flood Risk Assessment (SFRA) processes. The preparation of the Plan, SEA, AA and SFRA are taking place concurrently and the findings of the SEA, AA and SFRA have informed the Draft Plan. The process is currently at a stage where the findings of this report will be placed on public display as part of the required statutory public consultations. AA and SFRA documents will also accompany the Draft Plan on public display. Submissions made on the Draft Plan and associated documents, including SEA and

AA documents, will be responded to and updates made to the documents where relevant.

When the Plan is finalised, the SEA, AA and SFRA documents will be finalised. Final documents will include an SEA Statement, which will include information on how environmental considerations were integrated into the Plan, and an AA Conclusion Statement. The Plan will be implemented and environmental monitoring – as well as planning and project development and associated environmental assessments and administrative consent of projects – will be undertaken.

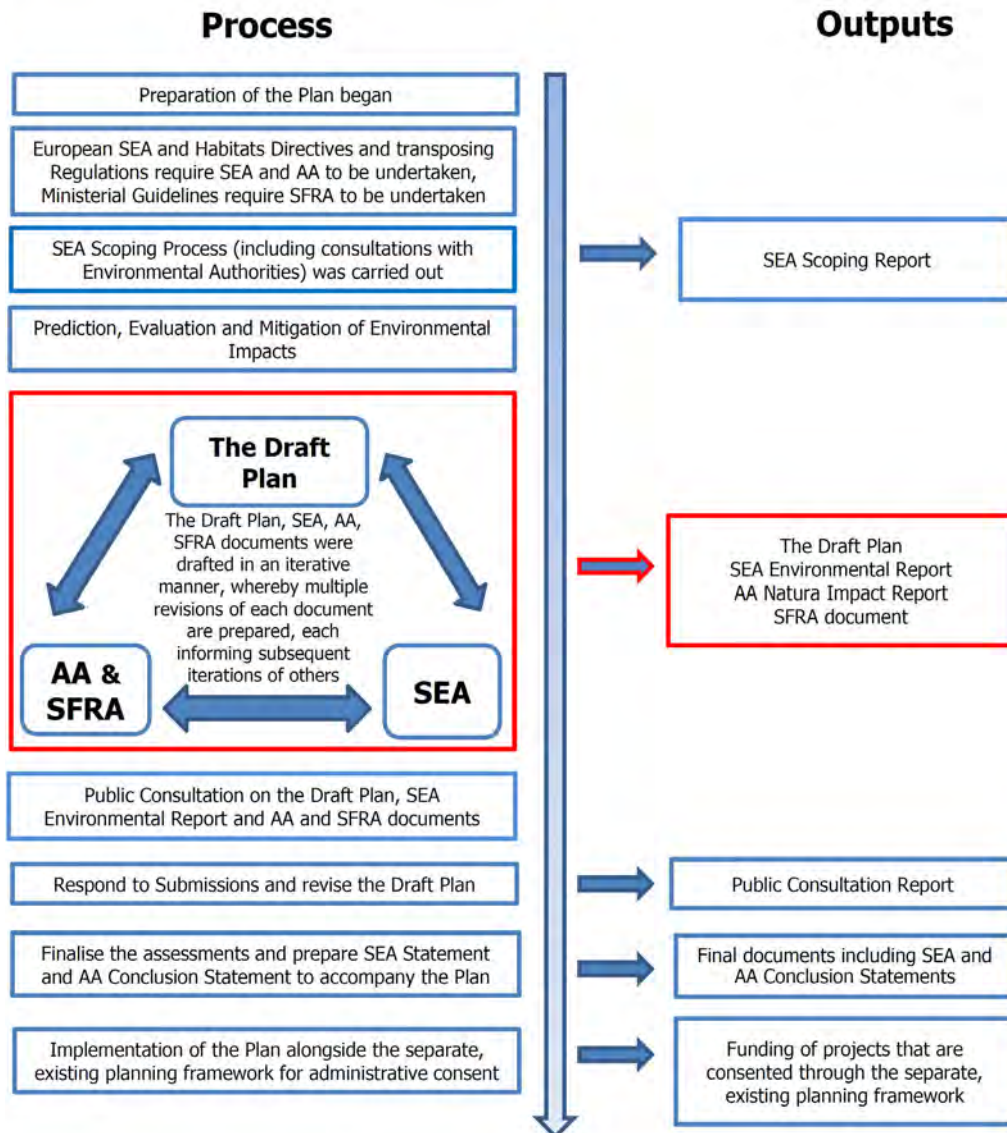


Figure 3.1 Overview of the SEA/AA/SFRA Plan-preparation Processes

3.2 Appropriate Assessment and Integrated Biodiversity Impact Assessment

3.2.1 Appropriate Assessment

Appropriate Assessment (AA) Screening and Stage 2 AA are being undertaken alongside the Plan. The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC).

The conclusion of the AA is that the Plan will not affect the integrity of the European Sites, alone or in combination with other plans or projects.⁴

The preparation of the Plan, SEA and AA has taken place concurrently and the findings of the AA have informed the SEA.

3.2.2 Integrated Biodiversity Impact Assessment

Many elements of Integrated Biodiversity Impact Assessment as detailed in the EPA's (2013) Practitioner's Manual have been aligned with in the undertaking of the SEA for the Plan. These include:

Scoping

- Biodiversity-relevant issues were identified for consideration at scoping stage and these are now detailed in Section 4.
- Reference to a zone of influence is provided at Section 4.

Baseline

- Biodiversity data sources relevant for this local level assessment have been identified and datasets collated/gathered.
- The biodiversity baseline addresses designated sites and other habitats and species of ecological value.
- AA information has been incorporated into the SEA baseline.

Alternatives

- Impacts upon biodiversity are considered under each of the alternatives and potential conflicts can be mitigated.

Impact assessment

- Effects on biodiversity are identified and assessed and the AA considers the interrelationship between biodiversity and potential effects on European Sites.

Mitigation and monitoring

- Taking into account all measures contained within the Plan, all the proposed mitigation measures deriving from the various processes were generally consistent and compatible.
- Indicators and associated targets have been included in SEA for monitoring European Sites.

Reporting

- This SEA ER addresses all biodiversity-related considerations relevant for this level of assessment.
- This SEA ER contains all biodiversity-relevant information, data, figures and maps relevant for this level of assessment.
- This SEA ER has been informed by the AA findings.

Communication and consultation

- Submissions received have been taken on board.
- The preparation of the Plan, SEA and AA have taken place concurrently and the findings of the AA have informed the SEA.

3.3 Strategic Flood Risk Assessment

A Strategic Flood Risk Assessment (SFRA) document accompanies this SEA Environmental Report and the Draft Plan. Requirements in relation to SFRA are provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (Department of Environment and Office of Public Works, 2009) and associated Department of the Environment, Community and Local Government Circular PL2/2014.

Flood risk management and drainage provisions are already in force through the County Development Plans and related provisions have been integrated into the JULAP. In addition, land use zoning contained within the Draft Plan has been informed by the SFRA process and associated delineation of flood risk zones.

⁴ Except as provided for in Article 6(4) of the Habitats Directive, viz. There must be:
 (a) no alternative solution available,
 (b) imperative reasons of overriding public interest for the plan to proceed; and
 (c) adequate compensatory measures in place.

3.4 Scoping

The scope of environmental issues to be dealt with by the SEA together with the level of detail to which they are addressed was broadly decided upon taking into account the collection of environmental baseline data and input from environmental authorities. Scoping allowed the SEA to become focused upon key issues relevant to the environmental components that are specified under the SEA Directive⁵.

All relevant environmental authorities identified under the SEA Regulations as amended, were sent SEA scoping notices by the Councils indicating that submissions or observations in relation to the scope and level of detail of the information to be included in the environmental report could be made to the Councils⁶.

As the Plan is not likely to have significant effects on the environment in another Member State, transboundary consultations as provided for by Article 7 of the SEA Directive were not undertaken.

Submissions made by the environmental authorities, by the Environmental Protection Agency and Department of Housing, Local Government and Housing specifically, influenced the scope of the assessment undertaken, the findings of which are included in this report.

3.5 Alternatives

The SEA Directive requires that reasonable alternatives (taking into account the objectives and the geographical scope of the plan or programme) are identified, described and evaluated for their likely significant effects on the environment. In accordance with this requirement, alternatives for the Plan are identified and assessed in Sections 6 and 7.

⁵ These components comprise biodiversity, fauna, flora, population, human health, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.

⁶ The following authorities were notified: Environmental Protection Agency; Department of Environment, Climate and Communications; Department of Agriculture, Food and the Marine; Department of Housing, Local Government and Heritage; Wicklow County Council; Wexford County Council; Kilkenny County Council; Tipperary County Council; Offaly County Council; and Kildare County Council.

3.6 Environmental Report

This SEA Environmental Report predicts and evaluates the likely environmental effects of implementing the Plan and relevant alternatives. The Environmental Report provides the Councils, stakeholders and the public with a clear understanding of the likely environmental consequences of the Plan.

Mitigation measures to prevent or reduce significant adverse effects posed by the Plan are identified in Section 9 - these have been integrated into the Plan.

This Environmental Report may be updated in order to take account of recommendations contained in submissions and in order to take account of changes that are made to the original, Draft Plan that is being placed on public display. Any proposed changes to the Draft Plan will be examined for the need to undertake SEA and AA.

The Environmental Report is required to contain the information specified in Schedule 2B of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004), as amended (see Table 3.1).

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

3.7 SEA Statement

On finalisation of the Plan, an SEA Statement will be prepared that will include information on:

- How environmental considerations have been integrated into the Plan, highlighting the main changes to the Plan that resulted from the SEA process;
- How the SEA Environmental Report and consultations have been taken into account, summarising the key issues raised in consultations and in the Environmental Report indicating what action was taken in response;
- The reasons for choosing the Plan in the light of the other alternatives, identifying the other alternatives considered, commenting on their potential effects and explaining why the Plan as adopted was selected; and
- The measures decided upon to monitor the significant environmental effects of implementing of the Plan.

Table 3.1 Checklist of Information included in this Environmental Report

Information Required to be included in the Environmental Report	Corresponding Section of this Report
(A) Outline of the contents and main objectives of the plan or programme, and of its relationship with other relevant plans and programmes	Sections 2, 5 and 8
(B) Description of relevant aspects of the current state of the environment and the evolution of that environment without implementation of the plan or programme	Section 4
(C) Description of the environmental characteristics of areas likely to be significantly affected	Sections 4, 7 and 8
(D) Identification of any existing environmental problems which are relevant to the plan or programme, particularly those relating to European protected sites	Section 4
(E) List of environmental protection objectives, established at international, EU or National level, which are relevant to the plan or programme and describe how those objectives and any environmental considerations have been taken into account when preparing the Plan	Sections 5, 7, 8, 9 and Appendix I
(F) Describe the likely significant effects on the environment	Sections 7 and 8
(G) Describe any measures envisaged to prevent, reduce and as fully as possible offset any significant adverse environmental effects of implementing the plan or programme	Section 9
(H) Give an outline of the reasons for selecting the alternatives considered, and a description of how the assessment was undertaken (including any difficulties)	Sections 3, 6, 7 and 8
(I) A description of proposed monitoring measures	Section 10
(J) A non-technical summary of the above information	Appendix II Non-Technical Summary
(K) Interrelationships between each environmental topic	Addressed as it arises within each Section

Section 4 Environmental Baseline

4.1 Introduction

Reflecting the specifications in the SEA Directive, the relevant aspects of the current state of the environment for the following environmental components are described in this section: biodiversity and flora and fauna; population and human health; soil; water; air and climatic factors; material assets; cultural heritage including architectural and archaeological heritage; landscape; and the interrelationship between the above factors.

This description includes information that is relevant to lower tier planning, environmental assessments and decision-making⁷.

4.2 National Reporting on the Environment

The EPA's *"Ireland's Environment – An Assessment 2020"* report provides an integrated assessment of the overall quality of Ireland's environment, the pressures being placed on it and the societal responses to current and emerging environmental issues. This report has informed various parts of the environmental baseline provided below. The key environmental challenges or messages identified by the report are:

Environmental Policy Position

A national policy position for Ireland's Environment.

Full implementation

Full implementation of existing environmental legislation and a review of the governance around the coordination on environmental protection across public bodies.

Health and Wellbeing

Protecting the Environment is an Investment in Our Health and Wellbeing.

Climate

Systemic change is required for Ireland to become the climate-neutral and climate resilient society and economy that it aspires to be.

Air Quality

Adoption of measures to meet the World Health Organization air quality guideline values should be the target to aim for in the Clean Air Strategy.

Nature

Safeguard nature and wild places as a national priority and to leave a legacy for future generations.

Water Quality

Improve the water environment and tackle water pollution locally at a water catchment level.

Marine

Reduce the human-induced pressures on the marine environment.

Clean Energy

Ireland needs to move rapidly away from the extensive use of fossil fuels to the use of clean energy systems.

Environmentally Sustainable Agriculture

An agriculture and food sector that demonstrates validated performance around producing food with a low environmental footprint.

Water Services

Drinking water and wastewater infrastructure must meet the needs of our society.

Circular Economy

Move to a less wasteful and circular economy where the priority is waste prevention, reuse, repair and recycling.

Land Use

Promote integrated land-mapping approaches to support decision-making on sustainable land use.

The report highlights that high-quality green and blue spaces are not just for nature but are for peoples' health and wellbeing, particularly in the context of an increasingly urban society and increasing settlement densities.

4.3 Sustainable Development Goals

Implementation of the Plan will contribute towards efforts to achieve a number of the 17 Sustainable Development Goals of the 2030 Agenda for Sustainable Development, which were adopted by world leaders in 2015 at a United Nations Summit and came into force in 2016. These Goals include:

- Goal 3. Ensure healthy lives and promote well-being for all at all ages.

⁷ Article 5 of the SEA Directive, in accordance with the established European principle of subsidiarity, requires that the Environmental Report includes the information that may reasonably be required taking into account, inter alia, the extent to which certain matters are more appropriately assessed at different levels in that process in order to avoid duplication of the assessment.

- Goal 6. Ensure availability and sustainable management of water and sanitation for all.
- Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all.
- Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
- Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
- Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable.
- Goal 12. Ensure sustainable consumption and production patterns.
- Goal 13. Take urgent action to combat climate change and its impacts.
- Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

4.4 Likely Evolution of the Environment in the Absence of a new Plan

In the absence of a new Local Area Plan, the framework for development across the Plan area would be provided by the County Development Plans and other related documents. There would be no Local Area Plan to provide additional detail beyond that provided already through the existing planning framework as how to achieve sustainable development and environmental protection and management in the town.

As a result, there would be a decreased likelihood in the extent, magnitude and frequency of the positive environmental effects identified by this assessment occurring, including:

- Contribution towards protection of ecology (including designated sites, ecological connectivity, habitats) by facilitating development of lands (including those within and adjacent to the town's core areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-served lands elsewhere in the Plan area and beyond.
- Contribution towards the maintenance of existing green infrastructure and associated ecosystem services, listed species, ecological connectivity and non-designated habitats.
- Contribution towards protection and/or maintenance of biodiversity and flora and fauna by contributing towards the protection of natural capital including the environmental vectors of air, water and soil. Biodiversity and flora and fauna includes biodiversity in

- designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species (including birds and bats), listed/protected species, ecological connectivity and non-designated habitats (including terrestrial and aquatic habitats), and disturbance to biodiversity and flora and fauna – including terrestrial and aquatic biodiversity and flora and fauna.
- Sustains existing sustainable rural management practices – and the communities who support them – to ensure the continuation of long-established managed landscapes and the flora and fauna that they contain.
- Promotion of economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management.
- Contribution towards appropriate provision of infrastructure and services to existing population and planned growth by facilitating compact development of lands (including those within and adjacent to the town's core areas) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-served lands elsewhere in the Plan area and beyond.
- Contribution towards the protection of human health by facilitating development of lands (including those within and adjacent to the town's core areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-served lands elsewhere in the Plan area and beyond.
- Contributes towards protection of human health as a result of contributing towards the protection of natural capital including environmental vectors, including air and water.
- Contribution towards the protection of soils (including those used for agriculture) and designated sites of geological heritage by facilitating development of lands (including those within and adjacent to the town's core areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-served lands elsewhere in the Plan area and beyond.
- Contribution towards the protection of the environment from contamination the highest standards of remediation.
- Contribution towards the protection of water by facilitating development of lands (including those within and adjacent to the town's core areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-served lands elsewhere in the Plan area and beyond.
- Contributions towards the protection of water resources including the status of surface and groundwaters and water-based designations.
- Contribution towards flood risk management and appropriate drainage.
- Contribution towards compliance with national and regional water services and waste management policies.
- Contribution towards increase in renewable energy use by facilitating renewable energy and

- electricity transmission infrastructure developments.
- Contribution towards limits in increases in energy demand from the transport sector by facilitating sustainable compact growth.
- Contribution towards reductions in average energy consumption per capita including promoting sustainable compact growth, sustainable mobility, sustainable design and energy efficiency.
- Contribution towards climate mitigation and adaptation by facilitating compact development of lands (including those within and adjacent to the town's core areas) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-served lands elsewhere in the Plan area and beyond.
- In combination with other plans, programmes etc., contribution towards the objectives of the wide policy framework relating to climate mitigation and adaptation, and associated contribution towards maintaining and improving air quality and managing noise levels, including through measures relating to:
 - Sustainable compact growth;
 - Sustainable mobility, including walking, cycling and public transport;
 - Drainage, flood risk management and resilience;
 - Sectors including agriculture, forestry, energy and buildings;
 - Sustainable design, energy efficiency and green infrastructure.
- Contributes towards protection of cultural heritage elsewhere by facilitating development within the Plan area.
- Contributes towards protection of cultural heritage within the Plan area by facilitating brownfield development and regeneration.
- Contributes towards protection of wider landscape and landscape designations by facilitating development within the Plan area.

Furthermore, and as a result, there would be an increased likelihood in the extent, magnitude and frequency of the adverse environmental effects identified by this assessment occurring, including:

- Arising from both construction and operation of development and associated infrastructure:
 - Loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna;
 - Habitat loss, fragmentation and deterioration, including patch size and edge effects; and
 - Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species such as birds (e.g. swifts) and bats.
- Potential interactions if effects arising from environmental vectors.
- Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of development on contaminated lands.

- Potential for riverbank erosion.
- Potential adverse effects upon the status of water bodies and entries to the WFD Register of Protected Areas (ecological and human value), arising from changes in quality, flow and/or morphology.
- Increase in flood risk and associated effects associated with flood events.
- Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts).
- Failure to adequately treat surface water run-off that is discharged to water bodies (water services infrastructure and capacity ensures the mitigation of potential conflicts).
- Failure to comply with drinking water regulations and serve new development with adequate drinking water (water services infrastructure and capacity ensures the mitigation of potential conflicts).
- Increases in waste levels.
- Potential impacts upon public assets and infrastructure.
- Interactions between agricultural waste and soil, water, biodiversity and human health – including as a result of emissions of ammonia from agricultural activities (e.g. manure handling, storage and spreading) and the production of secondary inorganic particulate matter.
- Potential conflict between development under the Plan and aiming to reduce carbon emissions in line with local, national and European environmental objectives.
- Potential conflicts between transport emissions, including those from cars, and air quality.
- Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors.
- Potential conflicts with climate adaptation measures including those relating to flood risk management.
- Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.
- Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.

4.5 Natural Capital and Ecosystem Services

Natural capital comprises renewable and non-renewable resources (e.g. plants, animals, air, water, soils, minerals) that combine to yield a flow of ecosystem services that provide benefits to people. These benefits can include clean air and water, a stable climate, protection from floods, food, resources for fuel, building materials, clothes and medicines, recreation. Managing natural capital so that it can continue to deliver the ecosystem services that provide these benefits is important in order to ensure sustainable development. Unmanaged natural capital risks the continued degradation and depletion of these assets, and

in turn, of their capacity to provide the economy and society with the ecosystem benefits that they depend on. These services also regulate climate, regulate water flows (e.g. through wetlands and forests), sequester and store carbon in peatlands and improve soil quality for crops.

Ecosystems are multifunctional communities of living organisms interacting with each other and their environment. Ecosystems provide a series of services for human well-being (ecosystem services) either directly or indirectly contributing towards human wellbeing. There are four main types; provisioning, regulating, supporting and cultural services. Provisioning services are the products obtained from ecosystems such as food, fresh water, wood, fibre, genetic resources and medicines. Regulating services are defined as the benefits obtained from the regulation of ecosystem processes such as climate regulation, natural hazard regulation, water purification and waste management, pollination or pest control. Support services highlight the importance of ecosystems to provide habitat for migratory species and to maintain the viability of gene-pools. Cultural services include non-material benefits that people obtain from ecosystems such as spiritual enrichment, intellectual development, recreation and aesthetic values⁸.

In preparing the Plan and developing policy objectives, the Councils have followed these ecosystem services approach principles (including through the strategic aims and various policy objectives):

- Consideration of natural systems - by using knowledge of interactions in nature and how ecosystems function.
- Taking into account of the services that ecosystems provide - including those that underpin social and economic well-being, such as flood and climate regulation, resources for food, fibre or fuel, or for recreation, culture and quality of life.
- Involving people - those who benefit from the ecosystem services and those managing them need to be involved in decisions that affect them.

The following natural capital and ecosystem services issues are relevant to this SEA and have been taken into account in the provisions of the Local Area Plan and associated higher-tier Carlow and Laois County Development Plans:

- Air quality;
- Noise pollution;
- Light pollution;
- Water quality and river basin management including interactions with soil;
- Soil and vegetation carbon, which helps to regulate greenhouse gas emissions;
- Soil/geological storage of water, contributing towards flood control;
- Land supporting food production; and
- Natural resources supporting energy production and recreation.

4.6 Biodiversity and Flora and Fauna

4.6.1 Overview

Information on biodiversity and flora and fauna which is relevant to project planning and development and associated environmental assessment and administrative consent of projects includes available information on designated ecological sites and protected species, ecological connectivity (including stepping stones and corridors) and non-designated habitats.

Key ecological sensitivities within and surrounding the Plan area include:

- **River Barrow and River Nore Special Area of Conservation** intersecting the Plan area - which has been designated for:
 - Alluvial wet woodlands and petrifying springs, priority habitats on Annex I of the EU Habitats Directive;
 - Old oak woodlands, floating river vegetation, estuary, tidal mudflats, *Salicornia* mudflats, Atlantic salt meadows, Mediterranean salt meadows, dry heath and eutrophic tall herbs, all habitats listed on Annex I of the EU Habitats Directive; and
 - Various species listed on Annex II of the EU Habitats Directive including sea lamprey, river lamprey, brook lamprey, freshwater pearl mussel, Nore freshwater pearl mussel, crayfish, twaite shad, Atlantic salmon, otter, Desmoulin's whorl snail and the Killarney fern.
- **Oakpark proposed Natural Heritage Area**, partially within and adjacent to the northern fringe of the Plan area; this site and comprises mature woodland, lakes and wetlands that provide an important habitat for wildlife, including many wild and game birds;
- **Cloghrick Wood proposed Natural Heritage Area** located c. 3 km south-west downstream of the Plan area and its associated terrestrial and aquatic ecology;
- Significant natural heritage spaces and corridors, including: aquatic and riverine ecology associated with the **River Barrow** and the **River Burren**, their tributaries and riparian

⁸ <https://biodiversity.europa.eu/topics/ecosystem-services>

buffer zones intersecting the Plan area; and the **Oak Park Forest Park** and **Carlow Town Park**.

The following information is relevant to ecological networks and connectivity and non-designated habitats:

- Watercourses, wetlands and peatlands;
- Other relevant County Development Plans designations;
- The EPA's Framework National Ecological Network for Ireland⁹;
- Pollinator Areas; and
- Other sites of high biodiversity value or ecological importance as identified by, for example, the Department of Agriculture, Food and the Marine (badger sets), relevant datasets from the National Biodiversity Data Centre.¹⁰

The zone of influence of the Plan beyond the Plan area with respect to impacts upon ecology via surface waters – including designated ecology – can be estimated to be areas within 15 km of the Plan area and all downstream areas of catchments which drain the area.

4.6.2 European Sites

European sites comprise Special Areas of Conservation¹¹ (SACs) and Special Protection Areas¹² (SPAs). Such sites within 15 km buffer

around the Plan area are mapped on Figure 4.1). There are no SPAs designated within the Plan area or 15 km of the Plan boundary. There is one SAC designated partially within the Plan area (as shown on Figure 4.2), the River Barrow and River Nore SAC (Site Code: 002162)¹³, and two other SACs designated within 15 km of the Plan boundary, the Slaney River Valley SAC (Site Code: 000781)¹⁴ and Holdenstown Bog SAC (Site Code 001757)¹⁵, as shown on Figure 4.1.

There is also one hydrologically connected European site within the wider region beyond 15 km buffer zone (i.e., downstream of the Plan boundary), namely Blackstairs Mountains SAC (Site Code: 000770).¹⁶ For more detail on European sites please refer to the AA Natura Impact Report that accompanies the Draft Plan and this SEA Environmental Report.

⁹ The EPA's Framework National Ecological Network provides a classification of the relative importance of areas by virtue of the biodiversity and flora that they contain and the connectivity they provide. Many of the areas identified are corridors.

¹⁰ Including habitats mapping undertaken for County Laois and County Carlow.

¹¹ SACs have been selected for protection under the European Council Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC) due to their conservation value for habitats and species of importance in the European Union. The Habitats Directive seeks to establish Natura 2000, a network of protected areas throughout the EU. It is the responsibility of each member state to designate SACs to protect habitats and species, which, together with the SPAs designated under the 1979 Birds Directive, form Natura 2000. The European Communities (Birds and Natural Habitats) Regulations 2011 consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010. The Regulations have been prepared to address several judgments of the Court of Justice of the European Union (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.

¹² SPAs have been selected for protection under the 1979 European Council Directive on the Conservation of Wild Birds (79/409/EEC) - referred to as the Birds Directive - due to their conservation value for birds of importance in the EU.

¹³ Sensitive features comprise: alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*; Atlantic salmon; Atlantic salt meadows; brook lamprey; Desmoulin's whorl snail; estuaries; European dry heaths; freshwater pearl mussel; *Hydrophilous* tall herb fringe communities of plains and of the montane to alpine levels; Killarney fern; Mediterranean salt meadows; white-clawed crayfish; otter; mudflats and sandflats not covered by seawater at low tide; Nore pearl mussel; old sessile oak woods with *Ilex* and *Blechnum* in the British Isles; *Salicornia* and other annuals colonising mud and sand; petrifying springs with tufa formation; reefs; river lamprey; sea lamprey; twaite shad; and water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation.

¹⁴ Sensitive features comprise: alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*; Atlantic salmon; Atlantic salt meadows; brook lamprey; Desmoulin's whorl snail; estuaries; European dry heaths; freshwater pearl mussel; *Hydrophilous* tall herb fringe communities of plains and of the montane to alpine levels; Killarney fern; Mediterranean salt meadows; white-clawed crayfish; otter; mudflats and sandflats not covered by seawater at low tide; Nore pearl mussel; old sessile oak woods with *Ilex* and *Blechnum* in the British Isles; *Salicornia* and other annuals colonising mud and sand; petrifying springs with tufa formation; reefs; river lamprey; sea lamprey; twaite shad; and water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation.

¹⁵ Sensitive features comprise: Atlantic salmon; alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*; water courses of plain to montane levels with the *Ranunculus fluitantis* and *Callitriche-Batrachion* vegetation; Atlantic salt meadows; brook lamprey; estuaries; freshwater pearl mussel; harbour seal; Mediterranean salt meadows; mudflats and sandflats not covered by seawater at low tide; old sessile oak woods with *Ilex* and *Blechnum* in the British Isles; otter; river lamprey; sea lamprey; and twaite shad.

¹⁶ Sensitive features comprise: European dry heaths; and Northern Atlantic wet heaths with *Erica tetralix*.

4.6.3 Natural Heritage Areas and Proposed Natural Heritage Areas

Natural Heritage Areas (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. Proposed NHAs (pNHAs) were published on a non-statutory basis in 1995, but have not since been statutorily proposed or designated.

There are 12 pNHAs and one NHA designated within and within 15 km buffer of the Plan area, as mapped on Figure 4.3 and listed on Table 4.1 below. There are no NHAs designated within the Plan boundary, however the Oakpark proposed Natural Heritage Area is located partially within and adjacent to the north-east of the Plan area (as shown on Figure 4.2) and the Cloghrystick Wood proposed Natural Heritage Area is located c. 3 km south-west downstream of the Plan area.

Table 4.1 NHAs and pNHAs within and within 15 km of the Plan area

NHAs and pNHAs		
Designation	Site Code	Site Name
NHA	002382	Coan Bogs
pNHA	000810	Oakpark
	002104	Grand Canal
	001751	Ballycore Rath
	001757	Holdenstown Bog
	001389	Corballis Hill
	000788	Ardristan Fen
	000781	Slaney River Valley
	000797	Ballymoon Esker
	000855	Whitehall Quarries
	000806	Cloghrystick Wood
	000857	Ballylynan
	000858	Barrow Valley at Tankardstown Bridge

4.6.4 Land Cover

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 CORINE 2018¹⁷ mapping (as shown on Figure 4.4) identifies the land cover within central parts of the Plan area as urban fabric with the adjacent industrial or commercial units and mineral extraction sites. The surrounding hinterland consists mainly of pastures, non-irrigated arable land and complex cultivation patterns. There is also areas of sport and leisure facilities, water bodies and mixed forest to the north of the Plan area and road and rail networks and associated land to the south-east of the Plan area.

There is also an area of a mixed forest and waterbodies to the north of the Plan area likely, considering the CORINE data, to contain Annex I Habitats (as shown on Figure 4.5).

4.6.5 Register of Protected Areas

In response to the requirements of the Water Framework Directive (WFD) a number of water bodies or parts of water bodies that must have extra controls on their quality by virtue of how their waters are used by people and by wildlife have been listed on Registers of Protected Areas (RPAs). Entries to the RPAs within and adjacent to the Plan area, designated by virtue of their value to biodiversity include a number of water-dependent habitats within the area that have been listed on RPAs relating to biodiversity – these relate to designated SACs and SPAs (see Section 4.6.2) and associated surface and groundwaters.

RPAs designated by virtue of their value to humans are addressed under Section 4.9.7.

4.6.6 Margaritifera Sensitive Areas

Freshwater pearl mussel is a globally threatened, long-lived and extremely sensitive species that can be impacted by many forms of pollution, particularly sediment and nutrient pollution and by hydrological and morphological changes, which may arise from developments, activities or changes in any part of the catchment. There are two species of freshwater pearl mussel in Ireland

¹⁷ The CORINE (Co-ordinated Information on the Environment) land cover data series was devised as a means of compiling geo-spatial environmental information in a standardised and comparable manner.

(*Margaritifera* and *Margaritifera durrovensis*) and both are protected under Annex II and Annex V of the EU Habitats Directive. Within the Plan area, *Margaritifera* Sensitive Areas¹⁸ are found over the full extent of the Barrow River catchment (mapped on Figure 4.6).¹⁹

Twenty-seven Management Plans for the Freshwater Pearl Mussel have been published, the objective of which is to restore the freshwater pearl mussel populations in 27 rivers, or stretches of rivers that are within the boundaries of Special Areas of Conservation. The most significant pressures across these catchments were identified as: point sources in relation to quarries, sand/gravel pits and wastewater treatments plants; and diffuse sources associated with agriculture (including overgrazing), forestry and on-site wastewater treatment systems.

4.6.7 Other Local Sites of High Biodiversity Value or Ecological Importance

Ecological networks are important in connecting areas of local biodiversity with each other and with nearby designated sites so as to prevent islands of habitat from being isolated entities. They are composed of linear features, such as tree lines, hedgerows and rivers/streams, which provide corridors or stepping stones for wildlife species moving within their normal range. They are important for the migration, dispersal and genetic exchange of species of flora and fauna particularly for mammals, especially for bats and small birds and facilitate linkages both between and within designated ecological sites, the non-designated surrounding countryside and urban areas.

Article 10 of the Habitats Directive recognises the importance of ecological networks as corridors and stepping stones for wildlife, including for migration, dispersal and genetic exchange of species of flora and fauna. The Directive requires that ecological connectivity and areas of ecological value outside the Natura 2000 network of designated ecological sites are maintained.

¹⁸ Catchments with previous records of *Margaritifera*, but current status unknown; Catchments of other extant populations; and Catchments of SAC populations listed in S.I. No. 296 of 2009.

¹⁹ 'Catchment with previous records of *Margaritifera*, but current status unknown'

Man-made habitats within the Plan area can also include important biodiversity features. Gardens provide habitats for a range of wildlife including various bird species, invertebrates such as bees and butterflies and mammals such as hedgehogs, mice, rats and foxes. These species move around between gardens using hedgerows and vegetated areas. These urban green spaces are of importance as they form part of a network of green spaces across the Plan area including gardens, parks, graveyards, amenity walks, old railway lines and patches of woodland and scrub within which animals and plants continue to thrive.

Ecological islands or areas of habitat that are not connected to surrounding ecologically valuable habitats can also be important. Biodiversity of the Plan area encompasses the various parklands, individual gardens, communal open spaces, cemeteries, waterways (including the River Barrow and River Burren), greens strips and wildlife areas, which adjoin the roads and streets, and the various species - both plant and animal - that occupy and/or pass through these areas.

Carlow Town Biodiversity Strategy and Action Plan 2021-2025 was prepared under a partnership framework between Carlow County Council, Carlow Town Development Forum, and the community of Carlow Town. It recognises the potential in Carlow Town to strengthen the green infrastructure network and promote habitat connectivity to the surrounding landscape through the implementation of a range of biodiversity enhancement measures. The Strategy and Action Plan identifies five areas for specific actions for protecting and enhancing biodiversity: the town centre; Hanover Park; the Burren River Linear Park; the River Barrow; and the plots. The Strategy and Action Plan also fully acknowledges the economic value of ecosystem services and the need to restore them for the benefit of the local economy and the wellbeing of residents.²⁰

4.6.8 Existing Problems

Ireland's Article 17 report on the Status of EU Protected Habitats and Species in Ireland (DCHG, 2019) identifies various Irish, EU-

²⁰ Draft Carlow-Graigucullen Joint Urban Local Area Plan 2024-2030

protected habitats and species to be of unfavourable status and many to be still declining, although it also identifies that a range of positive actions are underway. Categories for pressures and threats on Ireland's habitats and species identified by the report comprise:

- Agriculture;
- Forestry;
- Extraction of resources (minerals, peat, non-renewable energy resources);
- Energy production processes and related infrastructure development;
- Development and operation of transport systems;
- Development, construction and use of residential, commercial, industrial and recreational infrastructure and areas;
- Extraction and cultivation of biological living resources (other than agriculture and forestry);
- Military action, public safety measures, and other human intrusions;
- Alien and problematic species;
- Mixed source pollution;
- Human-induced changes in water regimes;
- Natural processes (excluding catastrophes and processes induced by human activity or climate change);
- Geological events, natural catastrophes;
- Climate change; and
- Unknown pressures, no pressures and pressures from outside the Member State.

Previous changes in land uses arising from human development have resulted in a loss of biodiversity and flora and fauna; however, legislative objectives governing biodiversity and fauna were not identified as being conflicted with. The Plan includes measures to contribute towards the protection of biodiversity and flora and fauna and associated ecosystem services.

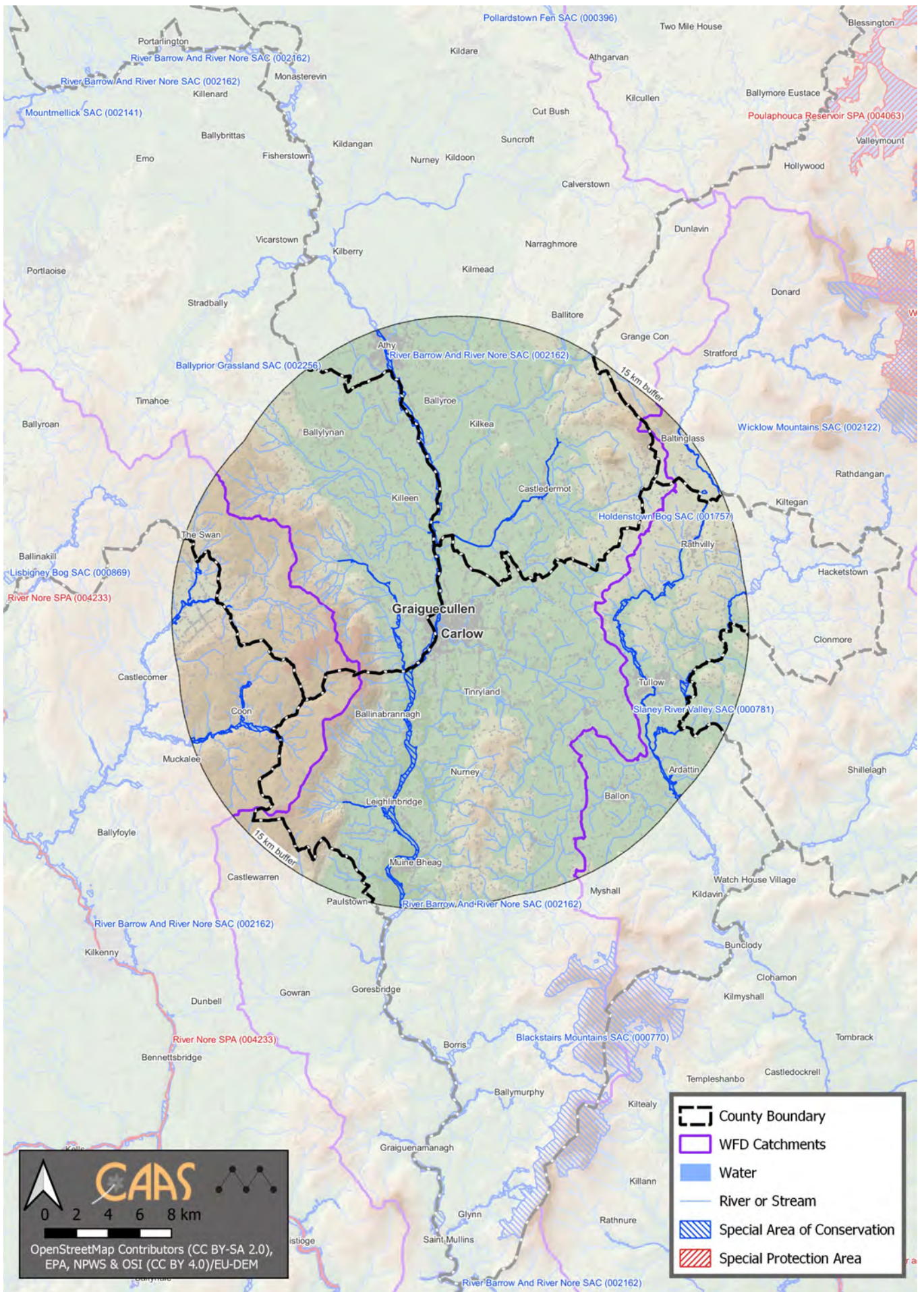


Figure 4.1 European sites within and within a 15 km buffer of the Plan area

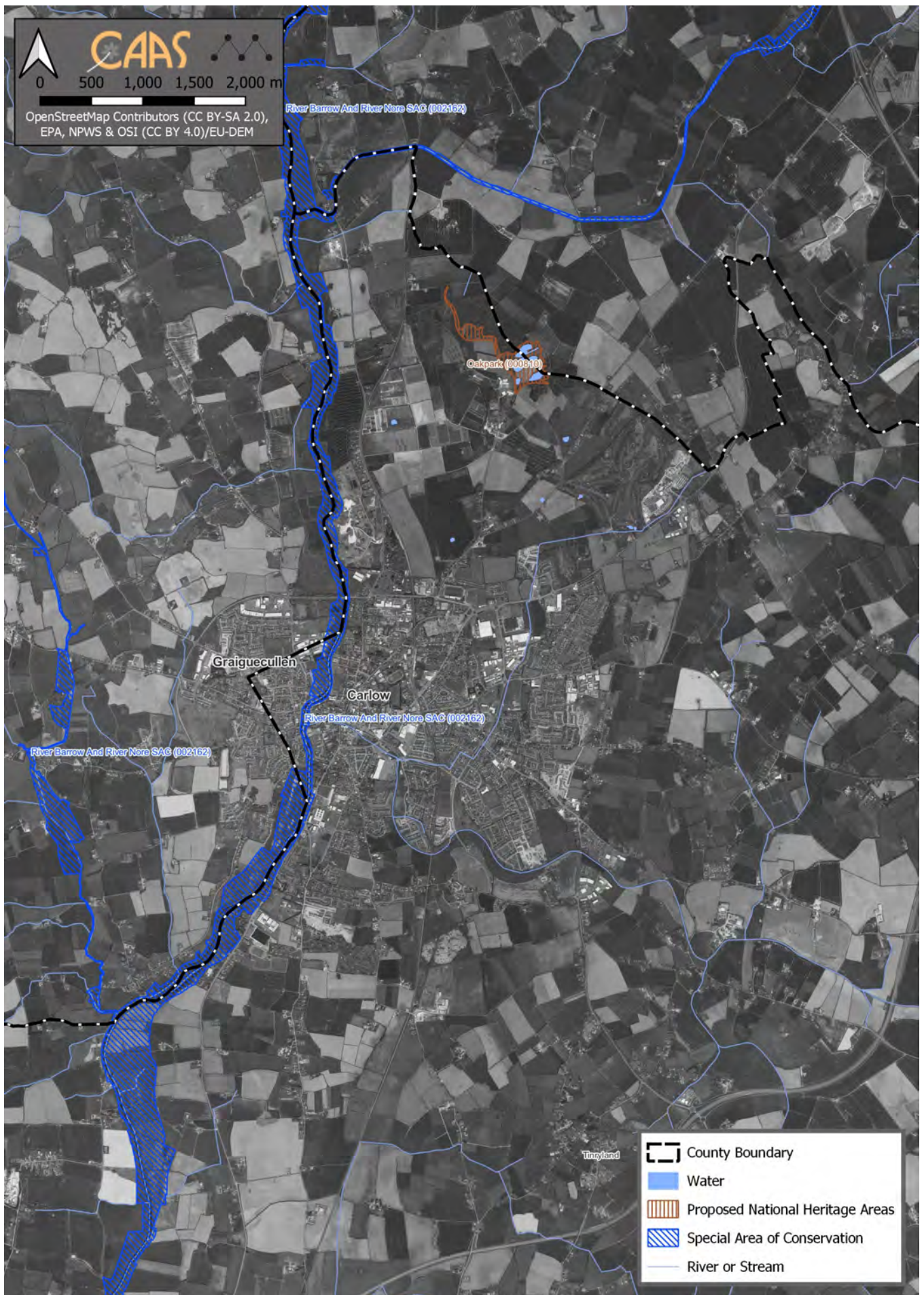


Figure 4.2 Ecologically designated sites within and surrounding the Plan area

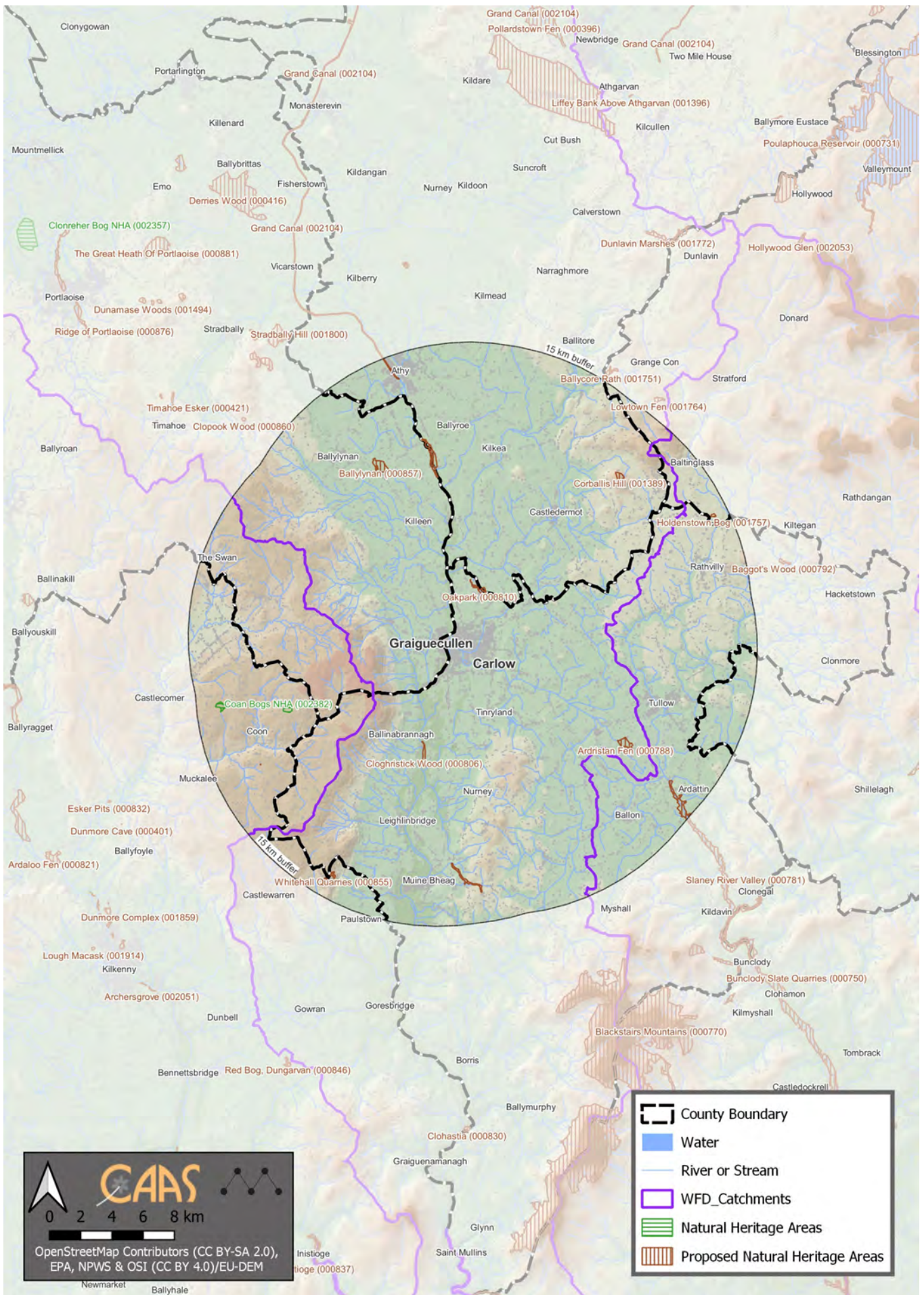


Figure 4.3 NHAs and pNHAs within and within a 15 km buffer of the Plan area

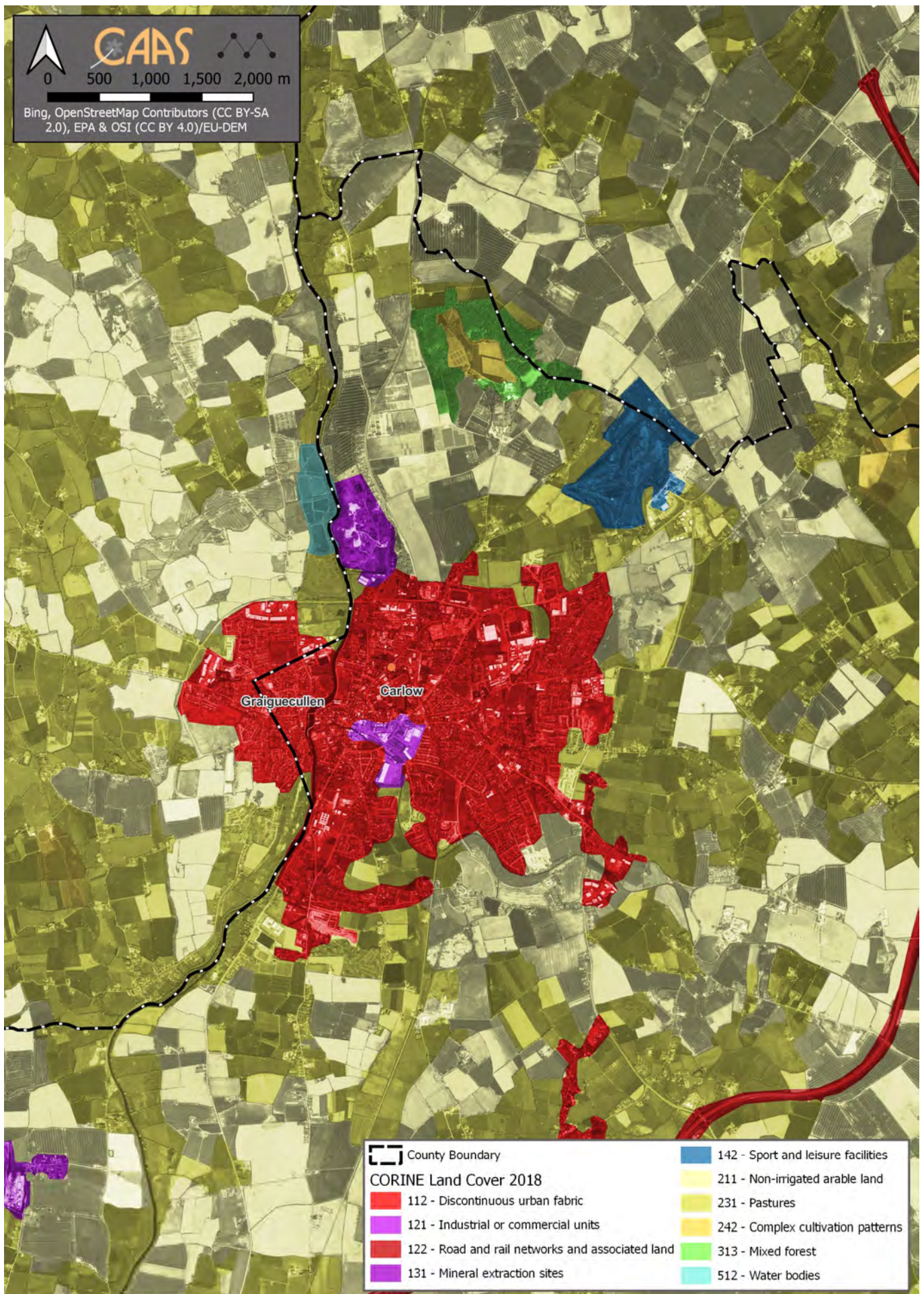


Figure 4.4 CORINE Land Cover Mapping 2018



Figure 4.5 Areas Likely to Contain Annex I Habitats



Figure 4.6 Margaritifera Sensitive Areas

4.7 Population and Human Health

4.7.1 Population

The preliminary results of Census 2022 within the CSO settlement boundary of Carlow-Graiguecullen recorded a population of 27,351 persons. The Carlow County Development Plan 2022-2028 provides a projected population increase for Carlow Town (including Carlow Environs) of 3,107 people by 2028, while the Laois County Development Plan 2021-2027 identifies a projected population for Graiguecullen of 700 people by 2027.²¹

Carlow-Graiguecullen has been designated as a Key Town in the Regional Spatial and Economic Strategies, a designation defined in both County Development Plans in terms of the town's:

- Self-sustaining economic regional driver role
- Sub-regional influence
- Large population scale
- Large economically active service and/or county town
- Employment provision
- High-quality transport links
- Capacity to act as a growth driver.

The population provided for in the Plan will interact with various environmental components. Potential interactions include:

- Recreational and development pressure on habitats and landscapes;
- Contribution towards increase in demand for waste water treatment at the municipal level;
- Contribution towards increase in demand for water supply and associated potential impact of water abstraction;
- Potential interactions in flood-sensitive areas; and
- Potential effects on water quality.

4.7.2 Human Health

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

²¹ Draft Carlow-Graiguecullen Joint Urban Local Area Plan 2024-2030

result of exposure to these vectors e.g., interactions with human health that could occur in urban locations that experience high levels of traffic congestion and associated particulate matter and noise emissions to air.

Emission limits for discharges to air, soil and water are set with regards to internationally recognised exposure limit values. These are generally set to be many times the safe exposure limit - in order to provide protection. In the event that a plan or programme began to have adverse health effects on surrounding populations it is likely that it would have been identified as being in breach of such emission standards at a very early stage - and long before the manifestation of any adverse health effects in the population.

These factors have been considered with regard to the description of: the baseline of each environmental component; and the identification and evaluation of the likely significant environmental effects of implementing the Plan.

4.7.3 Existing Problems

The number of homes within the Plan area with radon levels above the reference level is within the normal range experienced in other locations across the country²².

Parts of the Plan area are vulnerable to adverse effects from changes in the occurrence of severe rainfall events and associated flooding from surface water. Flooding in certain circumstances could pose a risk to human health. There is historic and predictive evidence of flooding within the Plan area (4.9.8).

Also refer to the other sections of this report referred to above with respect interactions with other environmental components.

²² The greatest health risk from radiation in Ireland is caused by radon. The presence of radon gas, a naturally occurring radioactive gas that originates from the decay of uranium in rocks and soils, occurs across the country. It accounts for more than half of the total radiation dose received by the Irish population. As a known carcinogen, in the same category as tobacco smoke and asbestos it is a cause of lung cancer. Exposure to radon for long periods or at high concentrations can lead to lung cancer. Mapping available at <http://www.epa.ie/radiation/radonmap>

4.8 Soil

Soil is the top layer of the earth's crust. It is formed by mineral particles, organic matter, water, air and living organisms. Soil can be considered as a non-renewable natural resource because it develops over very long timescales. It is an extremely complex, variable and living medium and performs many vital functions including: food and other biomass production, storage, filtration and transformation of many substances including water, carbon, and nitrogen. Soil has a role as a habitat and gene pool, serves as a platform for human activities, landscape and heritage and acts as a provider of raw materials. Such functions of soil are worthy of protection because of their socio-economic as well as environmental importance. Soils in any area are the result of the interaction of various factors, such as parent material, climate, vegetation and human action.

To date, there is no legislation which is specific to the protection of soil resources. However, the EU Soil Strategy for 2030 sets out a framework and concrete measures to protect and restore soils, and ensure that they are used sustainably. It sets a vision and objectives to achieve healthy soils by 2050, with concrete actions by 2030. In 2023, the EU proposed a new Soil Monitoring Law to protect and restore soils and ensure that they are used sustainably.

4.8.1 Soil Types

Main soil types²³ (Figure 4.7) surrounding the built-up areas²⁴ of Carlow-Graiguecullen are: alluvial soils (associated with alluvial clay, silt or sand river deposits of the Rivers Barrow and River Burren) stretching along the south-west, south-east and north-west of the Plan area; surface water gleys (wetland soils with slowly permeable horizons resulting in seasonal waterlogging) occurring adjacent to

²³ All soil types belong to a Sub-Group and so in turn to one of the 11 soil Great Groups. Great Groups and Sub-Groups are a hierarchical arrangement of soils used for taxonomical classification (<http://gis.teagasc.ie/soils/soilguide.php>).

²⁴ The built-up areas are mainly made up of urban soils. Urban soils are soils, which have been disturbed, transported or manipulated by human activity in the urban environment and are often overlain by a non-agricultural, man-made surface layer that has been produced by mixing, filling or by contamination of land surfaces in urban and suburban areas.

the western parts of the Plan area; luvisols (generally fertile, widely used for agriculture and associated with significant accumulation of clay) partially within the Plan area and the surrounding hinterland; and peat soils. Peat soils are often indicative of areas that are the most sensitive to development due to ecological sensitivities and impeded drainage issues.

The GSI (Geological Survey Ireland) have a suite of data sources available that would be useful in planning and assessing individual projects with regard to the environmental topic(s) of soil and/or material assets. These include:

- Aggregate Potential Mapping;
- Bedrock mapping;
- Quaternary and Physiographic mapping; and
- National Aquifer and Recharge mapping.

4.8.2 County Geological Sites

Geological Survey Ireland coordinate the Irish Geological Heritage Programme, whereby an objective has been set to identify and select sites of geological interest within each county across the country. County Geological Sites (CGSs) do not receive statutory protection like Natural Heritage Areas but receive an effective protection from their inclusion in the planning system. The audits of CGSs in County Carlow and in County Laois were completed in 2004 and 2016 respectively, identifying six CGSs in County Carlow and 33 in County Laois. There are no designated County Geological Sites occurring within the Plan area. The closest CGS is located c. 4 km to the north-west of the Plan area, Hollymount CGS (Site Code: LS015) in County Laois (as shown on Figure 4.8²⁵).

4.8.3 Landslides

The term "landslide" describes a wide variety of processes that result in the downward and outward movement of materials such as rock, debris, earth, mud and peat under the force of gravity. Issues such as existing ground conditions, slope stability and storage of excavated material have the potential to influence susceptibility to landslides/bog bursts. The potential impacts of landslides include loss of human life/injury, flooding,

²⁵ Figure 4.8 also shows Mineral Localities – refer also to Section 4.11.6.

pollution of watercourses and impacts upon aquatic biodiversity.

There are no known landslide events recorded within the Plan area. The GSI have identified²⁶ the Plan area as having mainly low levels of landslide susceptibility with some moderately low landslide susceptibility in the eastern parts of the Plan area (mapped on Figure 4.9).

4.8.4 Potentially Contaminated Lands and Landfill Sites

In the absence of mitigation, contaminated materials have the potential to adversely impact upon human health, water quality and habitats and species. As is the case with other urban and semi-urban areas across the country, there is potential for contamination at sites within the Plan area, especially where land uses occurred in the past, in the absence of environmental protection legislation.

4.8.5 Existing Problems

Legislative objectives governing soil were not identified as being conflicted with.

²⁶ <https://www.gsi.ie/en-ie/programmes-and-projects/geohazards/projects/Pages/Landslide-Susceptibility-Mapping.aspx>

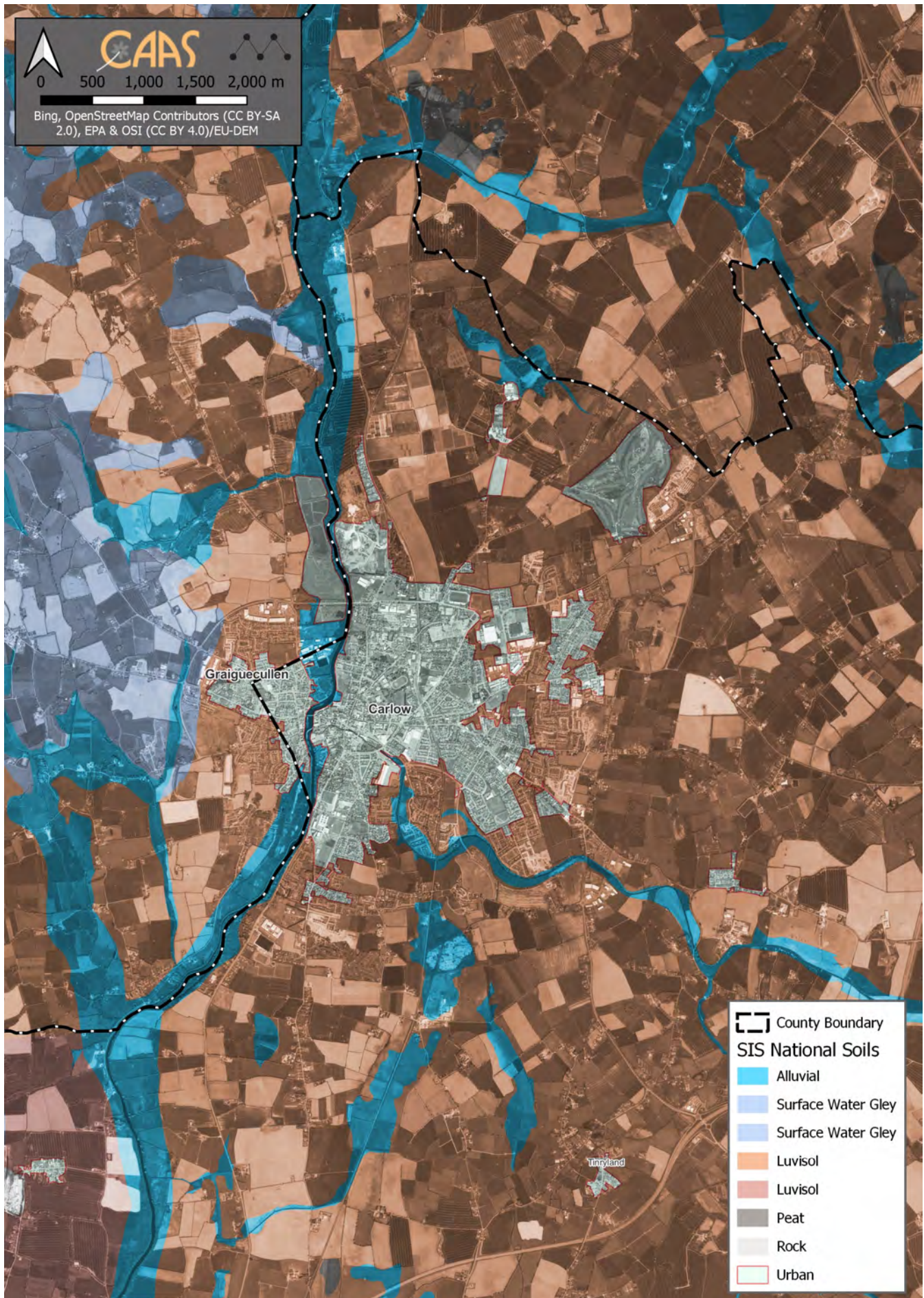


Figure 4.7 Soil Types

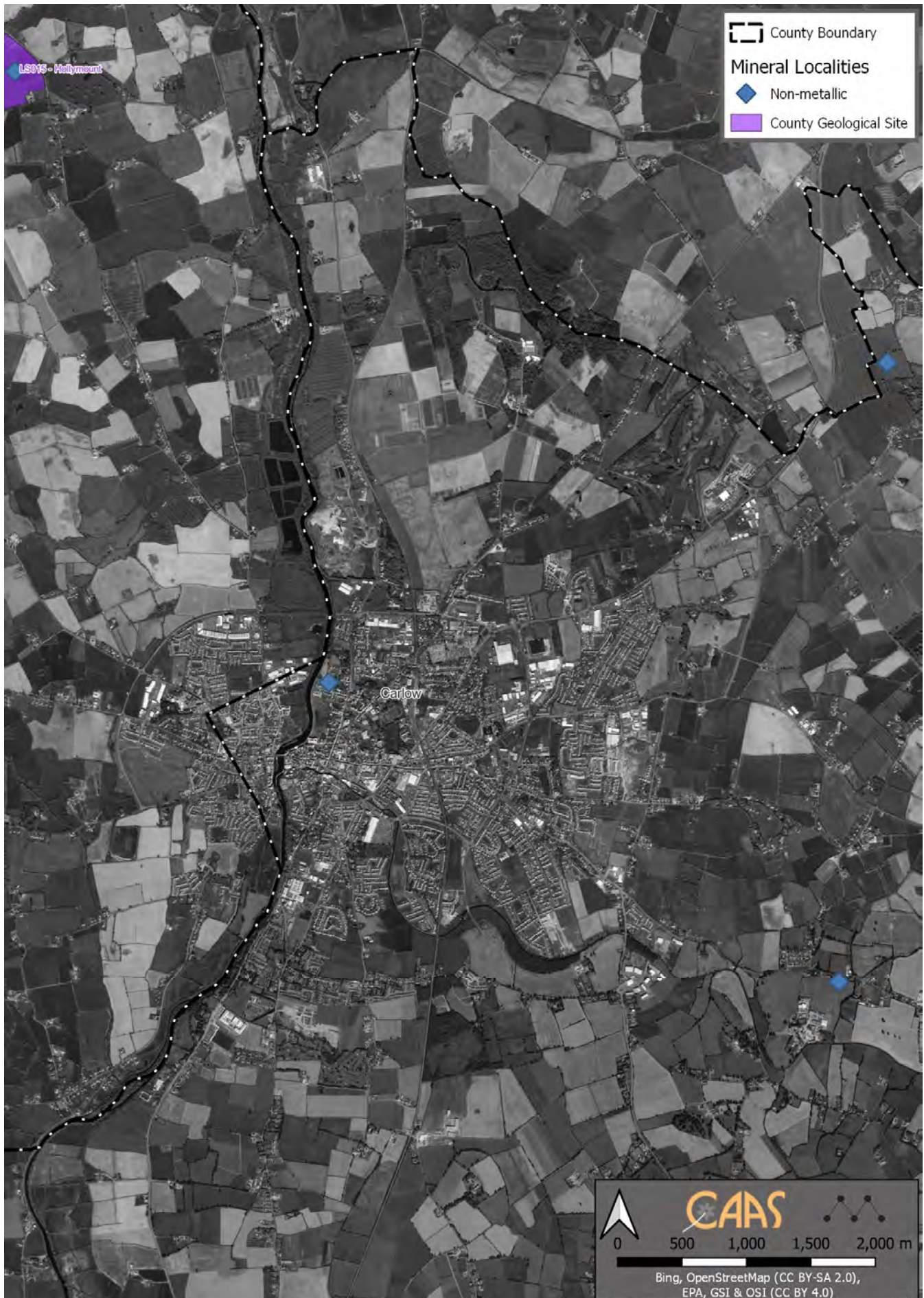


Figure 4.8 Geological Heritage



Figure 4.9 Landslide Susceptibility

4.9 Water

4.9.1 The Water Framework Directive

Since 2000, Water Management in the EU has been directed by the Water Framework Directive 2000/60/EC (WFD). The WFD requires that all Member States implement the necessary measures to prevent deterioration of the status of all waters - surface, ground, estuarine and coastal - and protect, enhance and restore all waters with the aim of achieving *good status*. All public bodies are required to coordinate their policies and operations so as to maintain the *good status* of water bodies which are currently unpolluted and improve polluted water bodies to *good status*.

Article 4 of the WFD sets out various exemptions for deterioration in status caused as a result of certain physical modifications to water bodies. This is provided: all practicable mitigation measures are taken; there are reasons of overriding public interest or the benefits to human health, safety or sustainable development outweigh the benefits in achieving the WFD objective; there are no better alternatives; and the reasons for the physical modification are explained in the River Basin Management Plan.

The EU's Common Implementation Strategy Guidance Documents No. 20 and 36 provide guidance on exemptions to the environmental objectives of the WFD.

For the purpose of assessment, reporting and management, water is divided into groundwater, rivers, lakes, estuarine waters and coastal waters which are in turn divided into specific, clearly defined water bodies.

4.9.2 Zone of Influence

The Zone of Influence of the Plan beyond the Plan area with respect to impacts upon waters can be estimated to be all groundwater and surface water bodies that are downstream of catchments that drain the Plan area.

4.9.3 Surface Water Drainage

A catchment is an area of land contributing to a waterbody, with all the water ultimately running off to a single outlet. The WFD requires water quality management to be based on natural river catchments i.e. by reference to the natural, environmental unit rather than by reference to administrative or legal boundaries, which often fragment river catchments.

Surface water within and surrounding the Plan area is channelled by rivers and streams and their tributaries forming part of the Barrow River Catchment. The River Burren (which rises on the northern slopes of Mount Leinster) flows from east to west through the central parts of the Plan area and joins the River Barrow to the south of Bridge Street in the west of the Plan area.

4.9.4 Surface Water Status

The WFD defines 'overall surface water status' as the general expression of the status of a body of surface water, determined by the poorer of its ecological status and its chemical status. Thus, in order to achieve 'good surface water status' both the ecological status and the chemical status of a surface water body need to be at least 'good'.

The ecological status is an expression of the structure and functioning of aquatic ecosystems associated with surface waters. Such waters are classified as of 'good ecological status' when they meet Directive requirements.

Chemical Status is a pass/fail assignment with a failure defined by a face-value exceedance of an Environmental Quality Standards (EQS) for one or more Priority Action Substances (PAS) listed in Annex X of the Water Framework Directive (WFD). The EQS values for individual PAS substances are set at European level. Good surface water chemical status means that concentrations of pollutants in the water body do not exceed the environmental limit values specified in the Directive.

The current WFD (2016-2021) status²⁷ of different stretches of the surface waters draining the Plan area is either *good* (identified by the EPA as 'Burren_050') or *moderate* (identified by the EPA as 'Barrow_160', 'Barrow_170' and 'Burren_060'). Figure 4.10 illustrates the WFD surface water status within and surrounding the Plan area. The River Burren and River Barrow are currently identified in the combined 2016-2021 data as being at risk of not meeting the WFD objectives by 2027 due to the damage being caused by significant pressures²⁸ related to:

- **Hydromorphological and anthropogenic pressures** are identified together in many instances. Hydromorphological pressures may include: modifications to the physical habitat conditions or the natural functioning of a waterbody which can impact on ecology, caused by dredging and straightening of rivers (channelisation), land drainage or hard infrastructure such as dams, weirs, culverts or other obstructions. Anthropogenic pressures may include: water abstractions; invasive species; agriculture; use of fertilizers, manures and pesticides; animal husbandry activities; inefficient irrigation practices; deforestation of woods; aquaculture; pollution due to industrial effluents and domestic sewage; and recreational activities.
- **Agricultural pressures** – may include issues related to farming, including loss of excess nutrients and sediment loss to surface waters from diffuse sources such as spreading of fertilisers and manures. Excess phosphorous and sediment are typically issues for rivers and lakes, and too much nitrogen is the main issue for estuaries and coastal waters.
- **Urban run-off pressures** – may include leaking sewers and run-off from paved and unpaved areas and misconnections where private foul connections are connected to storm sewers instead of the foul sewer network.

4.9.5 Groundwater Status

Groundwater is stored in the void spaces in underground layers of rock, or aquifers. These aquifers are permeable, allowing both the infiltration of water from the soils above them and the yielding of water to surface and coastal waters. Groundwater is the part of the subsurface water that is in the saturated zone - the zone below the water table, the uppermost level of saturation in an aquifer at which the pressure is atmospheric, in which all pores and fissures are full of water.

For groundwater bodies, the approach to classification is different from that for surface water. For each body of groundwater, both the chemical status and the quantitative status must be determined. Both have to be classed as either *good* or *poor*. The WFD sets out a series of criteria that must be met for a body to be classed as good chemical and quantitative status.

The WFD status (2016-2021) of groundwater underlying the Plan area (mapped on Figure 4.10) is currently identified as being of *poor* status (not meeting the objectives of the WFD) throughout the centre of the Plan area, associated with Athy-Bagnelstown Gravels²⁹, and *good status* (meeting the objectives of the WFD) in the eastern parts of Carlow Town and around Graigucullen in the west.

4.9.6 Aquifer Vulnerability and Productivity

The Geological Survey Ireland (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. Aquifer vulnerability underlying the Plan area is mapped on Figure 4.11 and classified as:

- *High, Extreme and Extreme (Rock at or near surface or karst) vulnerability* within central and eastern parts of the Plan area; and
- *Moderate vulnerability* within parts of the south and east of the Plan area and the surrounding hinterland.

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 4.12. Aquifers in the vicinity of the Plan area are classified as being: 'Locally Important Aquifer – bedrock which is moderately productive only in local zones'; 'Locally Important Aquifer – bedrock which is generally moderately productive'; 'Poor Aquifer – Bedrock which is generally unproductive except for local zones'; 'Regionally Important

²⁷ As per EPA's WFD Status 2016-2021 classification (<https://gis.epa.ie/EPAMaps/>).

²⁸ <https://gis.epa.ie/EPAMaps/Water>

²⁹ The groundwater vulnerability of this area is rated as by the GSI 'High', arising from the presence of a sand and gravel aquifer, and the limited depth of overburden protecting it. The waterbody underlying this area is currently identified by the EPA as at risk of failing to meet their WFD objectives by 2027.

Aquifer – Karstified (diffuse)'; and 'Regionally Important Aquifer – Fissured Bedrock'.

4.9.7 WFD Registers of Protected Areas

The WFD requires that Registers of Protected Areas (RPAs) are compiled for a number of water bodies or part of water bodies which must have extra controls on their quality by virtue of how their waters are used by people and by wildlife.

The WFD requires that these RPAs contain: areas from which waters are taken for public or private water supply schemes; designated shellfish production areas; bathing waters; areas which are affected by high levels of substances most commonly found in fertilizers, animal and human wastes - these areas are considered nutrient sensitive; areas designated for the protection of habitats or species e.g. Salmonid areas; Special Areas of Conservation (SACs); and, Special Protection Areas (SPAs). Also refer to Section 4.6.5.

The groundwater underlying the Plan and surrounding areas and the River Burren, are used for drinking water abstraction in accordance with European Communities (Drinking Water) (No. 2) Regulations 2007 (S.I. No. 278/2007) and are identified on the RPAs for: Drinking Water Ground Water and Drinking Water Rivers; and Groundwater in Nutrient Sensitive Areas³⁰ (mapped on Figure 4.13).

4.9.8 Flooding

A Strategic Flood Risk Assessment (SFRA) document accompanies this SEA Environmental Report and the Draft Plan. Requirements in relation to SFRA are provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (Department of Environment and Office of Public Works, 2009) and associated Department of the Environment, Community and Local Government Circular PL2/2014.

Flood risk management and drainage provisions are already in force through the Carlow County Development Plan 2022-2028

and Laois County Development Plan 2021-2027 and related provisions have been integrated into the Draft Plan. In addition, land use zoning within the Plan area has been informed by the SFRA process and associated delineation of flood risk zones.

Historical flooding is documented by the Office of Public Works (including past flood events - see Figure 4.14). The most significant source of flood risk within the Plan area is from fluvial (from rivers and streams), however there are other sources of flooding present including pluvial (from rainwater) and risk from surface drainage systems.

Predictive flood risk mapping is also available from the Office of Public Works and is included in the SFRA document that accompanies the Plan.

4.9.9 Existing Problems

Subject to exemptions provided for by Article 4 of the WFD, based on available water data, the recorded status of certain surface and groundwater bodies will need improvement in order to comply with the objectives of the WFD. The Plan includes provisions that will contribute towards improvements in the status of waters.

There is historic and predictive evidence of elevated levels of flood risk from fluvial sources at various locations across the Plan area. The preparation of the Plan, SEA and SFRA has taken place concurrently and the findings of the SFRA have informed both the Plan and the SEA.

³⁰ Groundwater bodies that intersect with areas designated as sensitive under the Urban Wastewater Treatment Directive (91/271/EEC) and transposing Regulations.

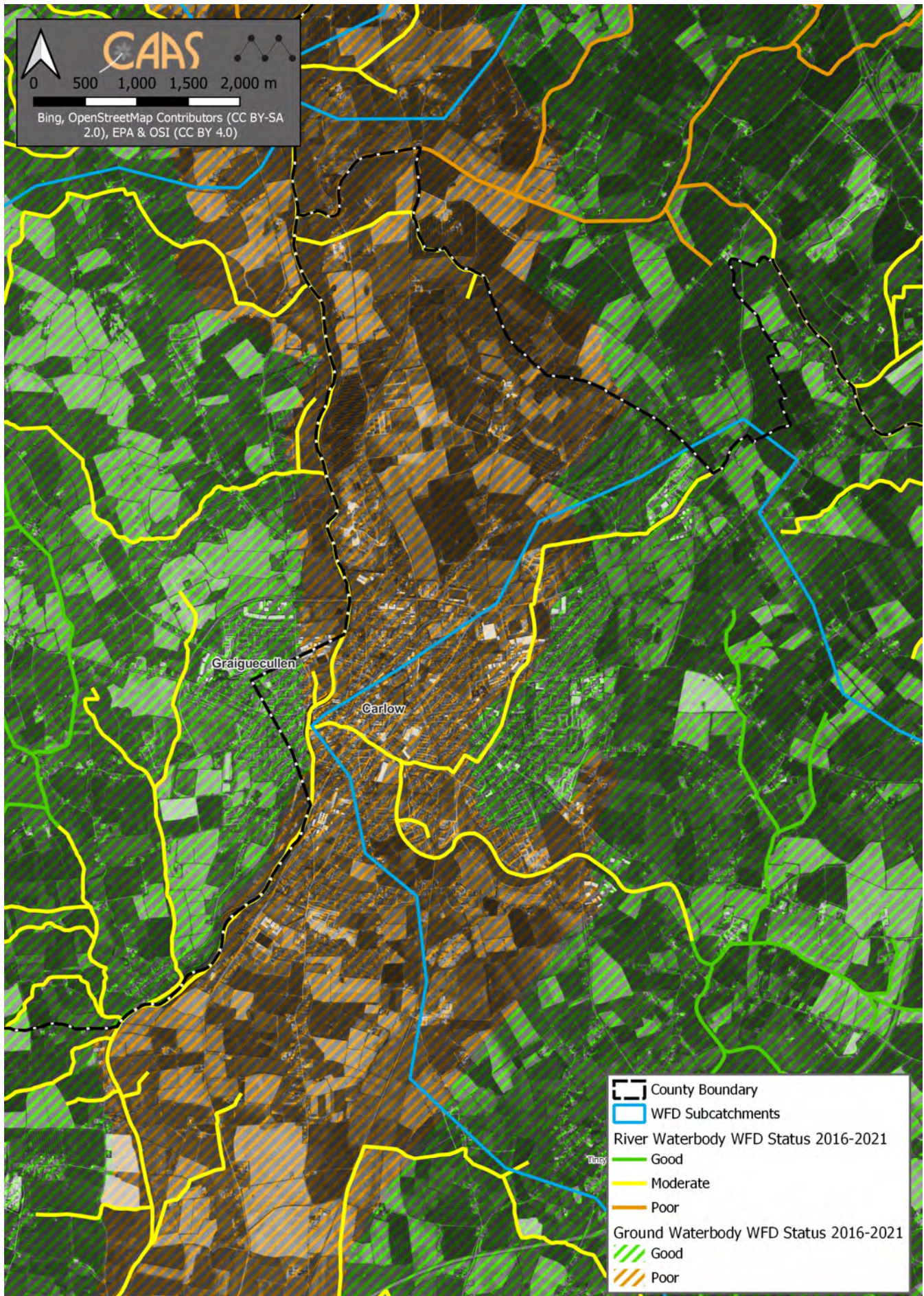


Figure 4.10 WFD Surface Waterbodies and WFD Ground Waterbodies Status (2016-2021)

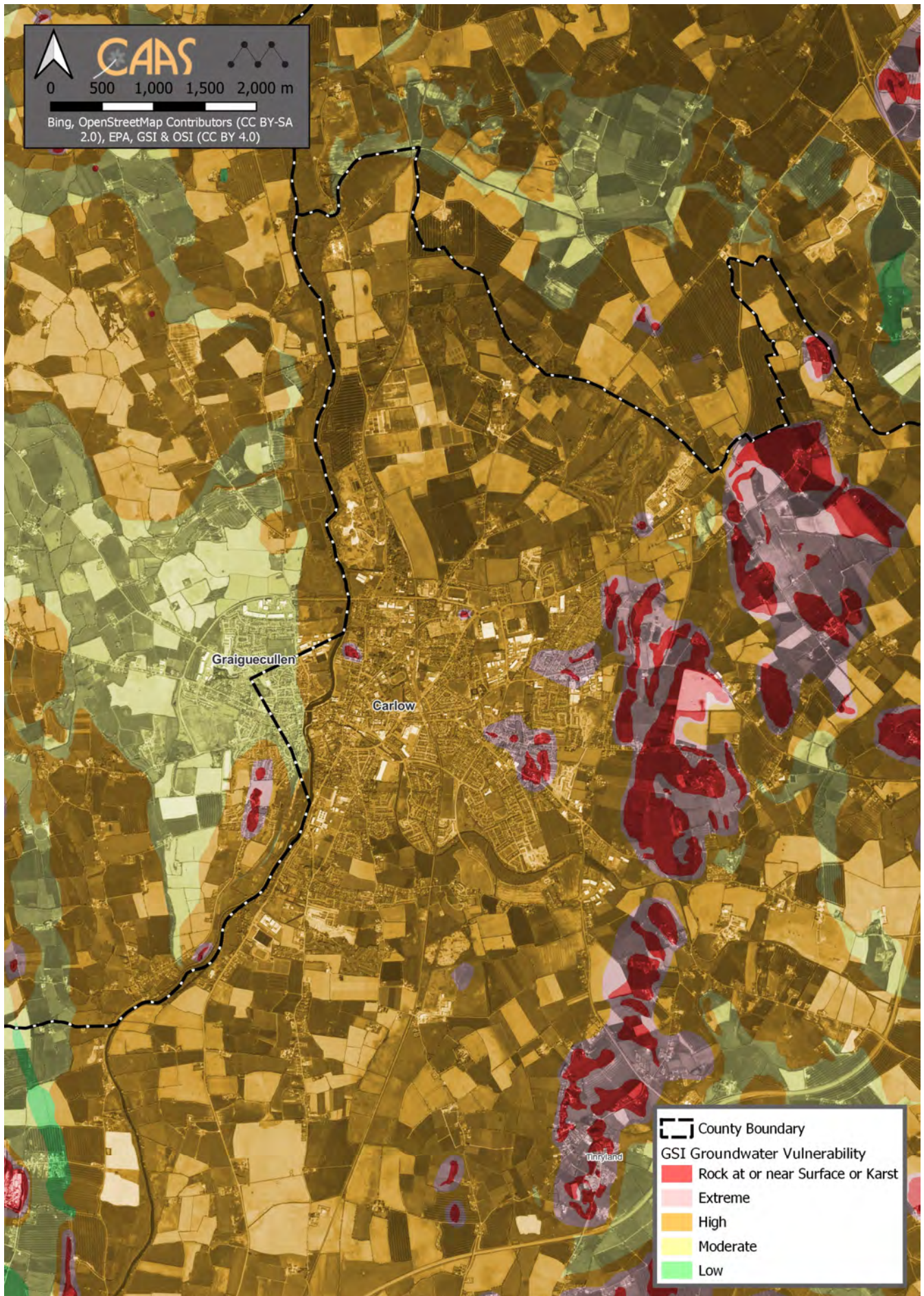


Figure 4.11 Groundwater Vulnerability

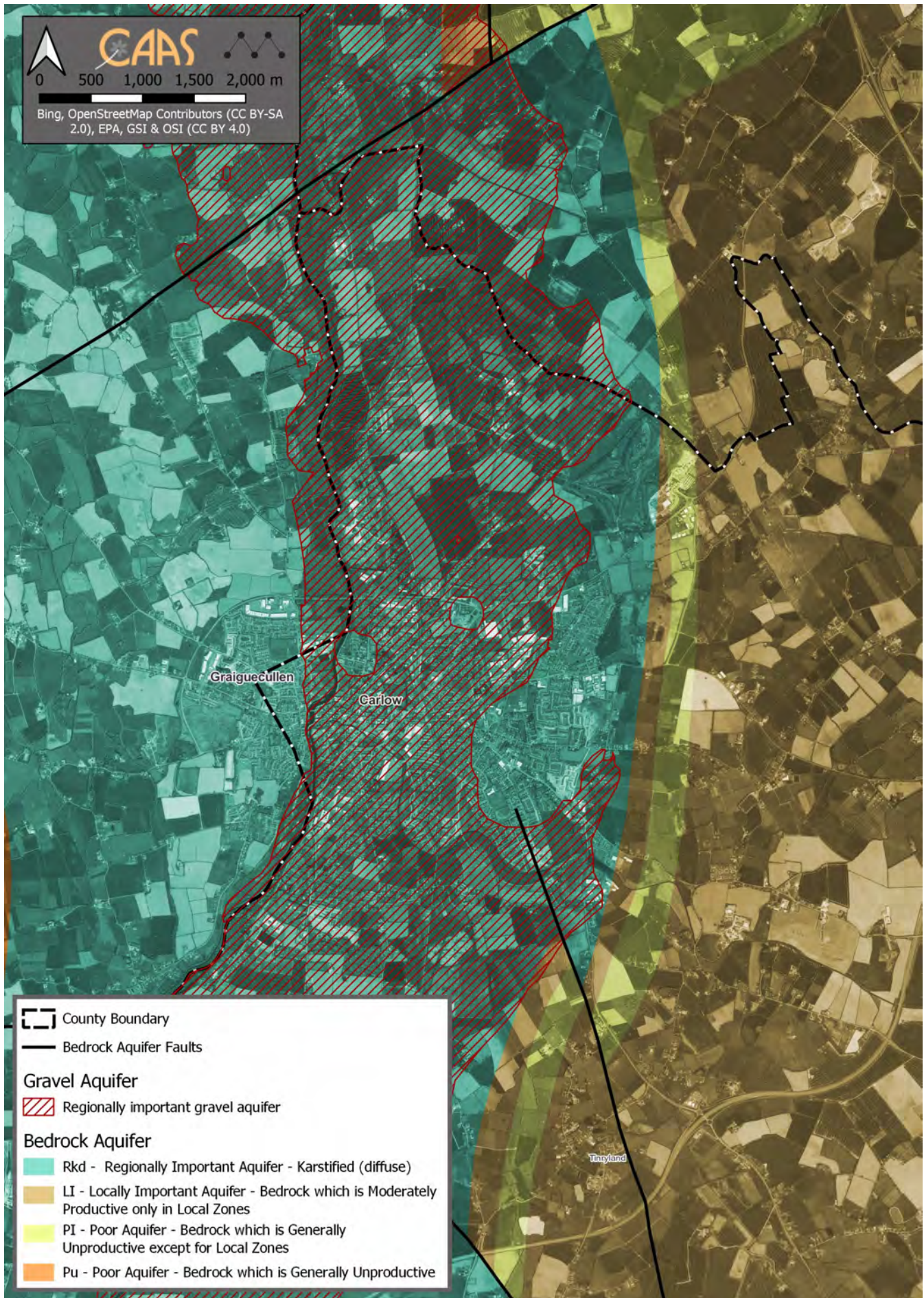


Figure 4.12 Aquifer Productivity



Figure 4.13 WFD RPA Drinking Water



Figure 4.14 OPW Past Flood Events

4.10 Air and Climatic Factors

4.10.1 Climatic Factors

Interactions with climatic factors are also present with other environmental components including water/flooding (see Section 4.9.8).

Total emissions of greenhouse gases by humans come from various sectors including transport, agriculture, energy industries, manufacturing combustion, industrial processes, residential developments, commercial services developments, waste management processes and fluorinated gases equipment (such as refrigeration and fire protection systems).

Ireland's Provisional Greenhouse Gas Emissions 1990-2020 (EPA, 2021) report details provisional estimates of greenhouse gas emissions for the period 1990-2020. In 2020, total national greenhouse gas emissions are estimated to have declined by 3.6% on 2019 levels to 57.70 million tonnes carbon dioxide equivalent (Mt CO₂eq). This reduction in total emissions was driven by the COVID impact on transport and less peat used for electricity generation. It highlights that further, transformative measures will be needed to meet national climate ambitions.

Greenhouse gas emissions from the transport sector decreased by 15.7% or 1.92 Mt CO₂eq in 2020. This decrease was largely driven by the impact of COVID restrictions on passenger car and public transport usage. International aviation, not included in the national total emissions, declined by 65% in 2020 or by 2.17 Mt CO₂eq.

The EPA's 2023 publication *Ireland's Greenhouse Gas Emissions Projections 2022-2040* provides an updated assessment of Ireland's total projected greenhouse gas emissions to 2040, using the latest inventory data for 2021 as the starting point. The report provides an assessment of Ireland's progress towards achieving its national ambitions under the Climate Action and Low Carbon Development (Amendment) Act 2021 and EU emission reduction targets for 2030 as set out

under the Effort Sharing Regulation³¹. Key findings identified as part of the report are that:

- Ireland is not on track to meet the 51% emissions reduction target (by 2030 compared to 2018) based on these projections, which include most 2023 Climate Action Plan measures. Further measures still need to be identified and implemented to achieve this goal.
- The first two carbon budgets (2021-2030), which aim to support the achievement of the 51% emissions reduction goal, are projected to be exceeded by a significant margin of between 24% and 34%.
- Sectoral emissions ceilings for 2025 and 2030 are projected to be exceeded in almost all cases, including agriculture, electricity, industry, and transport.
- It is projected that Ireland can meet its original EU Effort Sharing Regulation target of a 30% emission reduction by 2030 (compared to 2005) if all measures and flexibilities are used. Reaching the new 42% EU emission reduction target will require full and rapid implementation of Climate Action Plan 2023 measures and further measures to be implemented.
- Emissions in the 'Additional Measures' scenario are projected to be 29% lower in 2030 (compared with 2018) whereas in the 'Existing Measures' scenario the emissions reduction is projected to be 11%. Faster implementation of measures will be required to meet both National and EU targets.
- Emissions from the energy industries sector are projected to decrease by between 50% and 60% over the period 2021 to 2030. Renewable energy generation is projected to range from 68% to over 80% of electricity generation as a result of projected further and rapid expansion in wind energy and other renewables.
- Manufacturing combustion emissions are projected to reduce by between 6% and 22% from 2021 to 2030 with the implementation of efficiency measures and renewable heat generation. However, industrial process emissions are projected to increase by 5% from 2021 to 2030 due to anticipated increased cement production.
- Total emissions from the agriculture sector are projected to decrease by between 4% and 20% over the period 2021 to 2030. Savings are projected from a variety of measures including switching to different fertilisers, limits on nitrogen fertiliser usage and bovine feed additives.
- Transport emissions are projected to decrease by 1% to 35% over the period 2021-2030. Measures that are projected to contribute to higher emissions reductions include 943,500 EVs by 2030, a 20 per cent biodiesel blend rate and a 20% reduction in total passenger vehicle kilometres.
- Emissions from the residential sector are projected to decrease by 36% to 47% between 2021 and 2030 with commercial and public

³¹ Regulation (EU) 2018/842 of on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement.

services sector emissions projected to decrease by 19% to 49%. Measures projected to achieve this include 5.7 TWh of biomethane used for heating, energy efficiency retrofits and the installation of up to 680,000 heat pumps in residential homes.

- Emissions from the land use, land use change and forestry sector are projected to increase over the period 2021 to 2030 as forestry reaches harvesting age and changes from a carbon sink to a carbon source. Planned policies and measures for the sector, such as increased afforestation, water table management on agricultural organic soils and peatland rehabilitation, are projected to reduce the extent of the emissions increase.

4.10.2 Climate Mitigation and Adaptation

Climate mitigation describes the action to reduce the likelihood of climate change occurring or reduce the impact if it does occur. This can include reducing the causes of climate change (e.g. emissions of greenhouse gases) as well as reducing future risks associated with climate change.

The National Climate Action Plan 2023 (the second annual update to Ireland's Climate Action 2019) provides a detailed plan for taking decisive action to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and setting Ireland on a path to reach net-zero emissions by no later than 2050, as committed to in the Programme for Government and set out in the Climate Act 2021. The Plan lists the actions needed to deliver on climate targets and sets indicative ranges of emissions reductions for each sector of the economy. It will be updated periodically, to ensure alignment with legally binding economy-wide carbon budgets and sectoral ceilings.

Climate adaptation is a change in natural or human systems in response to the impacts of climate change. These changes moderate harm or exploit beneficial opportunities and can be in response to actual or expected impacts.

The National Adaptation Framework (Department of Communications, Climate Action and Environment, 2018), sets out the national strategy to reduce the vulnerability of the country to the negative effects of climate change and to avail of positive impacts. The National Adaptation Framework outlines a whole of government and society approach to climate adaptation. Under the Framework, a

number of Government Departments will be required to prepare sectoral adaptation plans in relation to a priority area that they are responsible for.

Climate change mitigation objectives are integral to the Draft Plan, including, inter alia, compact growth and sustainable mobility, sustainable transport measures, town-centre first, nature-based solutions, and flood risk and water management.

The Carlow County Council Climate Change Adaptation Strategy 2019-2024 and Laois County Council Climate Change Adaptation Strategy 2019-2024 feature a range of actions across sectors including: agriculture, forestry, biodiversity, built and archaeological heritage, transport infrastructure, electricity and gas networks, communication networks, flood risk management, water quality, water services infrastructure and health. The Strategies seek to:

- Ensure a proper comprehension of the key risks and vulnerabilities of climate change;
- Bring forward the implementation of climate resilient actions in a planned and proactive manner; and
- Ensure that climate adaptation considerations are mainstreamed into all plans and policies and integrated into all operations and functions of Carlow and Laois County Councils.

Under the National Climate Action Plan 2023, Carlow and Laois County Councils are required to prepare a locally specific climate action plan for their administrative areas. Once adopted, these plans will be valid for five years, and is subject to update at least every five years. Carlow and Laois County Councils' Climate Action Plans are being prepared and are required to be adopted before 24th February 2024. These plans will contribute towards addressing the mitigation of greenhouse gas emissions, climate change adaptation, and strengthening the alignment between national climate policy and the delivery of local climate action. Through the development and implementation of specific, action-focused, time-bound and measurable actions, local authority climate action plans will:

- 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.
- 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.

- 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.

4.10.3 Alternative Fuels and Renewable Electricity Generation Targets

The use of alternative fuels, including electricity, forms a significant part of government policy to reduce transport emissions. The Draft Plan facilitates a mode shift away from the private car to public transport, walking and cycling and provisions relating to electric vehicles. This will contribute towards reductions in the consumption of non-renewable energy sources and achievement of legally binding renewable energy targets.

The first Renewable Energy Directive (RED)³² was the most important legislation influencing the growth of renewable energy in the EU and Ireland for the decade ending in 2020. From 2021, RED was replaced by the second Renewable Energy Directive (REDII)³³, which continues to promote the growth of renewable energy out to 2030. RED set out two mandatory targets for renewable energy in Ireland to be met by 2020, while REDII sets new targets and criteria to be met by Ireland in 2030 and the interim. These targets are in the process of being updated again.

The overall renewable energy share is referred to as the overall RES target. REDII introduced a binding EU-wide target for overall RES of 32% in 2030 and requires Member States to set their national contributions to the EU-wide target. As per the National Energy and Climate Plan (NECP) 2021-2030, Ireland's overall RES target is 34.1% in 2030. The sectoral targets are referred to as RES-E (electricity), RES-T (transport) and RES-H (heat). Ireland's NECP 2021-2030 set targets for RES-E of 70%, RES-H of 24% and RES-T of 14%, by 2030.³⁴

4.10.4 Energy Security

Greater use of alternative fuels, including renewable energy, has the potential to further contribute towards energy security.

Indigenous production accounted for 32% of Ireland's energy requirements in 1990. However, since the mid-1990s import dependency had grown significantly, due to the increase in energy use together with the decline in indigenous natural gas production at Kinsale since 1995 and decreasing peat production. Ireland's overall import dependency reached 90% in 2006. It varied between 85% and 90% until 2016 when it fell to 69%. This trend reflects the fact that Ireland is not endowed with significant indigenous fossil fuel resources and has only in recent years begun to harness significant quantities of renewable resources and more recently natural gas from the Corrib field.

4.10.5 Ambient Air Quality

In order to protect human health, vegetation and ecosystems, EU Directives set down air quality standards in Ireland and the other Member States for a wide variety of pollutants. These pollutants are generated through fuel combustion, in space heating, traffic, electricity generation and industry and, in sufficient amounts, could affect the well-being of the areas inhabitants. The EU Directives include details regarding how ambient air quality should be monitored, assessed and managed.

The principles to this European approach are set out in the Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive (2008/50/EC) (which replaces the earlier Air Quality Framework Directive 1996 and the first, second and third *Daughter Directives*; the fourth *Daughter Directive* will be included in CAFE at a later stage).

In order to comply with the directives mentioned above, the EPA measures the levels of a number of atmospheric pollutants. For the purposes of monitoring in Ireland, four zones are defined in the Air Quality Standards Regulations 2002 (S.I. No. 271 of 2002).

³² Directive 2009/28/EC on the promotion of the use of energy from renewable sources.

³³ Directive (EU) 2018/2001 on the promotion of the use of energy from renewable resources (recast).

³⁴ SEAI (2022): *Energy in Ireland 2022 Report*. Available at: <https://www.seai.ie/publications/Energy-in-Ireland-2022.pdf>

The EPA's (2023) *Air Quality in Ireland 2022 Report* identifies that:

- Air quality in Ireland is generally good, however, there are concerning localised issues.
- Ireland met all of its EU legal requirements in 2022 but it did not meet the more stringent health-based World Health Organisation (WHO) Air Quality guidelines.
- Fine particulate matter (PM_{2.5}) from solid fuel combustion and nitrogen dioxide (NO₂) from vehicle emissions are the main pollutants.
- It is estimated that there are approximately 1,300 premature deaths annually in Ireland due to poor air quality from PM_{2.5}.
- The choices people make in how they heat their homes and how they travel directly impact the quality of the air they breathe.
- Ireland's ambition in the Clean Air Strategy is to move towards the WHO Air Quality guidelines.

The report further identifies the critical role of local authorities in the enforcement and implementation of existing plans and investment in infrastructure to encourage cleaner and healthier air quality choices, including:

- Local authorities must provide more resources to increase air enforcement activities and implement the new solid fuel regulations.
- Investment in clean public transport infrastructure across the country must be maintained and increased.
- More safe footpaths and cycle lanes must be created to continue to increase active travel as a viable and safe alternative to car use and associated NO₂ emissions.

In order to apply with European Directives relating to air quality, the EPA manages the National Ambient Air Quality Network and measures the levels of a number of atmospheric pollutants at locations across the country.³⁵

4.10.6 Noise

Noise is unwanted sound. 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 EU policy on noise reduction from source. The Directive requires competent authorities in Member States to:

- Draw up *strategic noise maps* for major roads, railways, airports and agglomerations, using harmonised noise indicators and use these maps to assess the number of people who 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.

In compliance with the Directive and transposing Environmental Noise Regulations (S.I. No. 140 of 2006), Noise Action Plans have been prepared for each local authority area within the country, including for the areas of Carlow and Laois County Councils. The purpose of Noise Action Plans is to avoid, prevent and reduce, on a prioritised basis the harmful effects, including annoyance due to the long-term exposure to environmental noise.

4.10.7 Existing Problems

The Climate Change Advisory Council's *The Annual Review 2021* raised the issue of the implementation gap whereby ambition on climate policy was not being matched by verifiable actions. Several issues regarding implementation continue to cause concern and are re-emphasised throughout *The Annual Review 2022*, such as: achieving compliance with national and EU targets will require a significant acceleration in the planning of new measures; and full and rapid implementation of already announced measures will be necessary to achieve these goals.

Air quality and noise present challenges, especially in urban areas, as detailed under the relevant sub-sections above. With regard to air quality, air pollution from transport is dominated by NO_x emissions. Of these, NO₂ is particularly impactful from a health perspective. The Draft Plan will help to facilitate reductions in emissions and a transition from dependence on fossil fuel combustion powered transport.

4.11 Material Assets

Other material assets, in addition to those detailed below, covered by the SEA include archaeological and architectural heritage (see Section 4.12) natural resources of economic value, such as water and air (see Sections 4.9 and 4.10).

³⁵ For more detail on current daily air quality data for the Plan refer to: <https://gis.epa.ie/EPAMaps/>.

4.11.1 Public Assets and Infrastructure

Public assets and infrastructure that have the potential to be impacted upon by the Plan, if unmitigated, include: 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.); and natural resources that are covered under other topics such as water and soil.

4.11.2 Land

The Plan 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 potential adverse environmental effects. Brownfield lands are generally located within urban/suburban areas.

4.11.3 Green Infrastructure

Parks and open space promote health and well-being, provide recreational facilities and range of habitats for various species. Green infrastructure 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 network in Carlow-Graigucullen provides connectivity of habitat for a range of species. Of particular importance to biodiversity within the Plan area are the following (refer also to Section 4.6):

- River Barrow and associated riparian habitat (Special Area of Conservation);
- Burren River and associated riparian habitat (tributary of the River Barrow); and
- Oak Park Forest Park (proposed Natural Heritage Area).

4.11.4 Forestry

Woodlands provide recreational opportunities in addition to their heritage and economic benefits. They are a valuable resource in terms of biodiversity, recreation and tourism, and also important as links in the green infrastructure network (see Section 4.6.7).

Examples of woodland within the Plan area include Oak Park Forest Park, Carlow Town Park, Hanover Park, and Burren River Linear Park.

4.11.5 Transport

Carlow-Graigucullen is an accessible urban centre, with good access and transport infrastructure that includes road network connectivity to Dublin and Waterford via the M9, and to the Midlands and South-East via the N80. These main road routes are supplemented by a network of regional roads further linking Carlow-Graigucullen to surrounding towns, villages, and rural areas in both counties. Together with this road infrastructure, the urban area is situated on the Dublin-Waterford railway line, with Carlow Railway Station located proximate to the town centre. Services from Carlow are infrequent, with an hourly frequency at peak times and gaps of up to three hours between services during the day. Improvements to frequency and timetabling would improve rail connectivity for Carlow-Graigucullen with the wider eastern, midlands and southern regions.

In terms of bus transport, JJ Kavanagh operates on the Dublin-Waterford route, with 13 daily services from SETU Carlow and Carlow Coach Park to Dublin Airport. Bus Eireann – Expressway routes 4 and 4X link Carlow-Graigucullen with Dublin Airport as well. Other services to regional destinations such as Wexford, Portlaoise, Tullamore, Athlone, and Naas, are less frequent. Local Link runs a number of demand-responsive services that connect the urban area with towns and villages in its hinterland. More recently and following a lengthy period of consultation between Carlow County Council and the NTA, a local bus service in Carlow Town became operative in August 2023.

An Area Based Transport Assessment (ABTA) has been prepared to inform the drafting of the Plan. The purpose of the ABTA is to place the integration of land use and transport planning at the centre of the plan-making process for Carlow-Graigucullen. The assessment examined the existing and proposed transport infrastructure and service provision across all modes of transport including sustainable means such as active travel modes (walking and cycling) in the joint urban area. The assessment provides an understanding of the existing constraints and

modal share, and also identifies the proposed interventions within the plan area and in the wider context in order to facilitate a shift towards more sustainable travel and transportation options. The ABTA is contained in Appendix IV to the Plan and also forms the basis of the policies, objectives and related provisions included in Chapter 6 of the Plan.³⁶

4.11.6 Minerals and Aggregates

The GSI have a suite of data sources available that may be useful in planning and assessing individual projects with regard to the environmental topic(s) of soil and/or material assets. These include:

- Aggregate Potential Mapping;
- Bedrock mapping;
- Quaternary and Physiographic mapping; and
- National Aquifer and Recharge mapping.

Mineral localities within and surrounding the Plan area are shown on Figure 4.8. There is one mineral locality identified within the Plan area – a disused, now infilled, black limestone/marble quarry,

4.11.7 Water Services

4.11.7.1 Wastewater

The EPA's 2023 report *'Urban Waste Water Treatment in 2022'* identified that:

- 15 large urban areas that did not meet European Union treatment standards in 2022 require improvements to comply with these standards;
- 26 towns and villages discharging raw sewage into the environment every day must be connected to wastewater treatment plants;
- 6 collecting systems (sewers) must be upgraded to address the findings of a judgement from the Court of Justice of the European Union;
- 39 priority areas require improvements to protect rivers, lakes, estuaries and coastal waters that are adversely impacted by wastewater; and
- 12 areas need improvements in wastewater treatment to protect endangered freshwater pearl mussels.

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.

From January 2014, Irish Water (now Uisce Éireann) became responsible for all public water services, involving the supply of drinking water and the collection, treatment and disposal of waste water. Uisce Éireann is also responsible for the treatment and disposal of the sludge that is generated from both its water and waste water treatment plants. The Councils are agents of Uisce Éireann for operations and remain the designated Water Authorities for the assessment and approval of on-site wastewater treatment systems and is responsible for surface water drainage in the town.

The provision of well-maintained quality waste water treatment infrastructure is essential to facilitating sustainable development of Carlow-Graiguecullen while also protecting the environment and public health. Uisce Éireann is now responsible for the collection, treatment and disposal of waste water where public wastewater facilities exist in towns and villages.

Uisce Éireann, working in partnership with Carlow Council, is making investments to undertake essential upgrade works to waste water treatment plants in towns and villages across the County. The upgrading of infrastructure will contribute towards compliance with the Water Framework Directive, EU Urban Waste Water Treatment Directive and Drinking Water Regulations and will help to protect human health and maintain the quality of surface and ground waters.

4.11.7.2 Wastewater Infrastructure

The Wastewater Treatment Plant (WWTP) serving Carlow-Graiguecullen is currently not listed as a priority area (such areas are those where improvements are required to resolve urgent environmental issues).³⁷

The Plan area is served by the Carlow (Mortarstown) WWTP (Registration No. D0028-01) and has a design capacity of 36,000 Population Equivalent (PE) with a current (2022) load of 32,036 PE and spare capacity of 3,964 PE.³⁸ As indicated by Uisce

³⁶ Draft Carlow-Graiguecullen Joint Urban Area Plan 2024-2030

³⁷ <https://www.epa.ie/publications/compliance-enforcement/waste-water/priority-areas-list-current.php>

³⁸ https://www.water.ie/docs/aers/2022/D0028-01_2022_AER.pdf

Éireann there is currently spare capacity available at this plant, with a project/planned underway.³⁹ While Irish Water confirm through their current capacity registers that the WWTP has spare capacity, improvement and upgrade works are planned to bring capacity up to 58,000 PE⁴⁰.

The Carlow WWTP is currently fully compliant with the Emission Limit Values (ELVs) set in the Wastewater Discharge Licence in the most recent available Annual Environmental Report 2022 (published in April 2023).⁴¹

The 2016 Census revealed that there were 169 individual septic tanks or other individual treatment systems serving private households within Carlow-Graigecullen. It is the policy of Carlow and Laois County Councils to encourage and support a changeover from septic tanks/private wastewater treatment systems to the public wastewater network wherever feasible, and subject to connection agreements with Uisce Éireann.⁴²

4.11.7.3 Water Supply

Uisce Éireann is responsible for providing and maintaining adequate public water supply infrastructure throughout the county. The Carlow Town Public Water Supply, which receives water through: abstraction from the River Slaney at Rathvilly Water Treatment Plant, which produces 11,500 m³/day; and abstraction from the River Burren at Sion Cross Water Treatment Plant, which produces 3,500 m³/day. Groundwater abstraction is provided from a borehole at Oak Park Water Treatment Plant at the northern end of the joint urban area (2,000 m³/day), and from two boreholes at Derrymoyle WTP to the west of Graigecullen (1,250 m³/day)⁴³.

The Plan area is within the Carlow North Water Resource Zone⁴⁴ and as identified by

³⁹ <https://www.water.ie/connections/developer-services/capacity-registers/wastewater-treatment-capacity-register/carlow/> (Published in June 2023)

⁴⁰ Draft Carlow-Graigecullen Joint Urban Area Plan 2024-2030

⁴¹ https://www.water.ie/docs/aers/2022/D0028-01_2022_AER.pdf

⁴² Draft Carlow-Graigecullen Joint Urban Area Plan 2024-2030

⁴³ Draft Carlow-Graigecullen Joint Urban Area Plan 2024-2030

⁴⁴ A Water Resource Zone (WRZ) is an independent water supply system serving a region, city, town or village and is governed by topography or the extent of the water

Uisce Éireann, there is capacity available to meet 2032 population targets, although an improvement to the level of service is required.⁴⁵

Uisce Éireann Asset Planning have approved the design of approximately 13 km of upsizing of the trunkmain from Straboe to the Brownhill Reservoir, with 6km approved to commence construction in 2023. This upsizing will eliminate the constraints in the network. Uisce Éireann may also carry out local upgrades required within Carlow Town.⁴⁶

Under Section 58 of the Environmental Protection Agency Act 1992, the EPA is required to collect and verify monitoring results for all water supplies in Ireland covered by the European Communities (Drinking Water) Regulations, 2000. The EPA publishes their results in annual reports that are supported by Remedial Action Lists (RALs). The RAL identifies water supplies that are not in compliance with the Regulations mentioned above. The Carlow Town Public Water Supply is not listed on the most recent RAL (Q2 of 2023; published in October 2023)⁴⁷.

4.11.7.4 Surface Water Drainage

Carlow County Council and Laois County Council are responsible for surface water drainage in the Plan area. Sustainable urban Drainage systems (SuDS) is a method to minimise the quantity and increase the quality of surface water runoff and to mitigate adverse impacts of climate change. SuDS can also provide amenity and biodiversity benefits. The Councils seek to ensure the sustainable management of surface water discharges in urban areas through the use of SuDS.

distribution network in an area. A WRZ may include multiple Water Treatment Plants and/or sources.

⁴⁵ Capacity constraints exist, connection applications will be assessed on an individual basis considering their specific demand requirements. An improvement to the Level of service will be required to meet 2031 population targets. This may take the form of leakage reduction and/or capital investment to maintain/improve levels of service as the demand increases. Proposed solutions will be developed & prioritised through the National Water Resources Plan and investment planning process. Source: <https://www.water.ie/connections/developer-services/capacity-registers/water-supply-capacity-register/carlow/> (Published in June 2023).

⁴⁶ Draft Carlow-Graigecullen Joint Urban Area Plan 2024-2030

⁴⁷ <https://www.epa.ie/publications/compliance-enforcement/drinking-water/annual-drinking-water-reports/Q2-2023-RAL-for-Public-Drinking-Water-Supplies-FINAL.pdf>

Uisce Éireann commenced a Drainage Area Plan for Carlow Town in 2022 and to assess the performance of the wastewater networks service the area. It was identified that:⁴⁸

- There are a number of pumping station and combined network overflows in the network, which can discharge either directly or indirectly (via storm water infrastructure) to watercourses such as the River Barrow and Burren.
- Some sections of the network may be operating at or close to capacity which is restricting future development upstream of these areas.
- There are some concerns regarding structural integrity of sections of the network. Excessive infiltration has been reported as a significant issue in some areas of the network.
- There are instances of blockages and operational issues across the network.
- Uisce Éireann has received a large number of pre-connection enquiries and applications regarding new residential and commercial developments in the area.

4.11.8 Waste Management

Waste management within the Plan area is guided by the Southern Waste Management Plan 2015-2021 (for Carlow Town) and the Eastern-Midlands Waste Management Plan 2015-2021 (for Graiguecullen). The Plans provides frameworks for the prevention and management of waste in a sustainable manner.

There are three Region Waste Management Plans in Ireland and these will be replaced by a new National Waste Management Plan for a Circular Economy, which will take account of the various measures outlined in A Waste Action Plan for A Circular Economy - Ireland's National Waste Policy 2020-2025.

4.11.9 Existing Problems

The provisions of the Plan will contribute towards protection of the environment with regard to impacts arising from material assets.

The provisions of infrastructure and supporting services for development, particularly water and wastewater services, is critical.

4.12 Cultural Heritage

4.12.1 Archaeological Heritage

Archaeology is the study of past societies through the material remains left by those societies and the evidence of their environment. Archaeological sites and monuments vary greatly in form and date; examples include earthworks of different types and periods, (e.g., early historic ringforts and prehistoric burial mounds), megalithic tombs from the Prehistoric period, medieval buildings, urban archaeological deposits and underwater features.

Archaeological heritage is protected under the National Monuments Acts (1930-2004), Natural Cultural Institutions Act 1997 and the Planning Acts.

The Record of Monuments and Places (RMP) is an inventory, put on a statutory basis by amendment to the National Monuments Act 1994, of sites and areas of archaeological significance, numbered and mapped. It is available from the National Monuments Service and at archaeology.ie.

The term 'monument' includes all man-made structures of whatever form or date except buildings habitually used for ecclesiastical purposes. All monuments in existence before 1700 A.D. are automatically considered to be historic monuments within the meaning of the Acts. Monuments of architectural and historical interest also come within the scope of the Acts. Monuments include: any artificial or partly artificial building, structure or erection or group of such buildings, structures or erections; any cave, stone or other natural product, whether or not forming part of the ground, that has been artificially carved, sculptured or worked upon or which (where it does not form part of the place where it is) appears to have been purposely put or arranged in position; any, or any part of any, prehistoric or ancient tomb, grave or burial deposit, or, ritual, industrial or habitation site; and any place comprising the remains or traces of any such building, structure or erection, any such cave, stone or natural product or any such tomb, grave, burial deposit or ritual, industrial or habitation site, situated on land or in the territorial waters of the State', but excludes 'any building or part of any building, that is habitually used for

⁴⁸ Draft Carlow-Graiguecullen Joint Urban Area Plan 2024-2030

ecclesiastical purposes' (National Monuments Acts 1930-2004). A recorded monument is a monument included in the list and marked on the map which comprises the RMP set out county by county under Section 12 of the National Monuments (Amendment) Act, 1994 by the Archaeological Survey of Ireland. The definition includes Zones of Notification within which requirements for notifications of proposed works apply.

There are various Zones of Notification designated within Carlow-Graiguecullen, with entries to the Sites and Monuments Record and Record of Monuments and Places identified. Figure 4.15 shows the spatial distribution of recorded monuments within and beyond the Plan area. There are various recorded monuments within the Plan area, including clusters within the town's Zone of Archaeological Potential. Entries to the RMP include: historic town; town defences; Chapelstown ecclesiastical site; Kernanstown megalithic tomb; burial grounds; mills; filed systems; ring-ditches; bridges; churches; tombs; cremation pits; religious buildings; enclosures; armorial plaque; dovecote; designed landscape; battlefield; and Anglo-Norman masonry castle (also identified as a National Monument in State Care Guardianship).⁴⁹

Waterbodies within and surrounding the Plan area may contain many features and finds associated with riverine heritage such as shipwrecks, piers, quay walls, fords, stepping stones and associated archaeological objects and features.

4.12.2 Architectural Heritage

The term architectural heritage is defined in the Architectural Heritage (National Inventory) and Historic Monuments Act 1999 as meaning all: structures and buildings together with their settings and attendant grounds, fixtures and fittings; groups of structures and buildings; and, sites which are of technical, historical, archaeological, artistic, cultural, scientific, social, or technical interest.

Records of Protected Structures are legislated for under Section 12 and Section 51 of the Planning and Development Act 2000 as amended. Protected structures are defined in

the Planning and Development Act 2000 as amended as structures, or parts of structures that are of special interest from an architectural, historical, archaeological, artistic, cultural, scientific, social or technical point of view.

In relation to a protected structure or proposed protected structure, the following are encompassed:

- The interior of the structure;
- The land lying within the curtilage⁵⁰ of the structure;
- Any other structures lying within that curtilage and their interiors; and,
- All fixtures and features that form part of the interior or exterior of any structure or structures referred to in subparagraph (i) or (iii).

Clusters of architectural heritage are indicated within the town's centre, as shown on Figure 4.16. There are various Protected Structures within Carlow-Graiguecullen Plan area⁵¹, including some well-known and landmark examples, such as:

- Carlow Cathedral (RPS CT77);
- Carlow College St. Patricks (RPS CT73);
- St. Mary's Church of Ireland Church (RPS CT49);
- Carlow Court House (RPS CT37);
- St. Dymphna's Hospital (RPS CT25);
- Carlow Railway Station (RPS CT8);
- Oak Park Arch/Entrance Gates (RPS CT70);
- Graiguecullen Church of Ireland Church (RPS CT118); and
- Former Sugar Factory Lime Kiln Tower (CW77).

An Architectural Conservation Area (ACA) is a place, area, group of structures or townscape, which is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or contributes to the appreciation of a Protected Structure. 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 seven Architectural Conservation Areas identified within the Plan

⁵⁰ Curtilage is normally taken to be the parcel of ground immediately associated with the Protected Structure, or in use for the purposes of the structure. Protection extends to the buildings and land lying within the curtilage. While the curtilage sometimes coincides with the present property boundary, it can originally have included lands, features or even buildings now in separate ownership, e.g. the lodge of a former country house, or the garden features located in land subsequently sold off. Such lands are described as being attendant grounds, and the protection extends to them just as if they were still within the curtilage of the Protected Structure.

⁵¹ Draft Carlow-Graiguecullen Joint Urban Area Plan 2024-2030

⁴⁹ Draft Carlow-Graiguecullen Joint Urban Area Plan 2024-2030

area (shown on Figure 4.16): Montgomery Street ACA; Dublin Street ACA; Granby Row ACA; Little Barrack Street ACA; Brown Street ACA; Maryborough Street ACA; and College Street ACA.

The National Inventory of Architectural Heritage (NIAH) is a State initiative under the administration of the Department of Culture, Heritage and the Gaeltacht and was established on a statutory basis under the provisions of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999. The purpose of the NIAH is to identify, record, and evaluate the post-1700 architectural heritage of Ireland, uniformly and consistently as an aid in the protection and conservation of the built heritage. NIAH surveys provide the basis for the recommendations of the Minister of Housing, Local Government and Heritage to the local authorities for the inclusion of particular structures in their Record of Protected Structures. The NIAH includes historic gardens and designed landscapes. Figure 4.16 shows entries to NIAH in the Plan area.

4.12.3 Existing Problems

The context of archaeological and architectural heritage has changed over time however no existing conflicts with legislative objectives governing archaeological and architectural heritage have been identified.

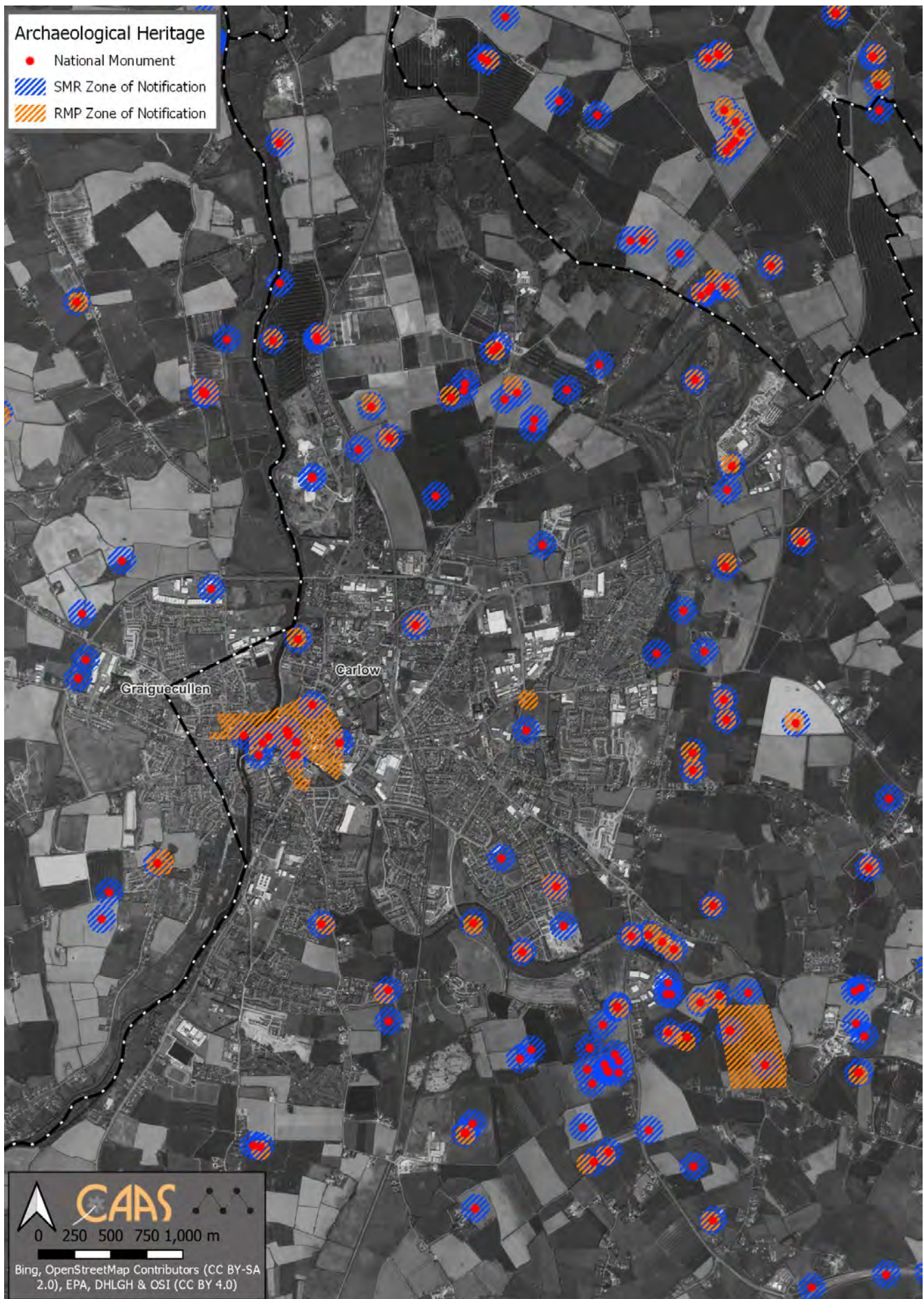


Figure 4.15 Archaeological Heritage

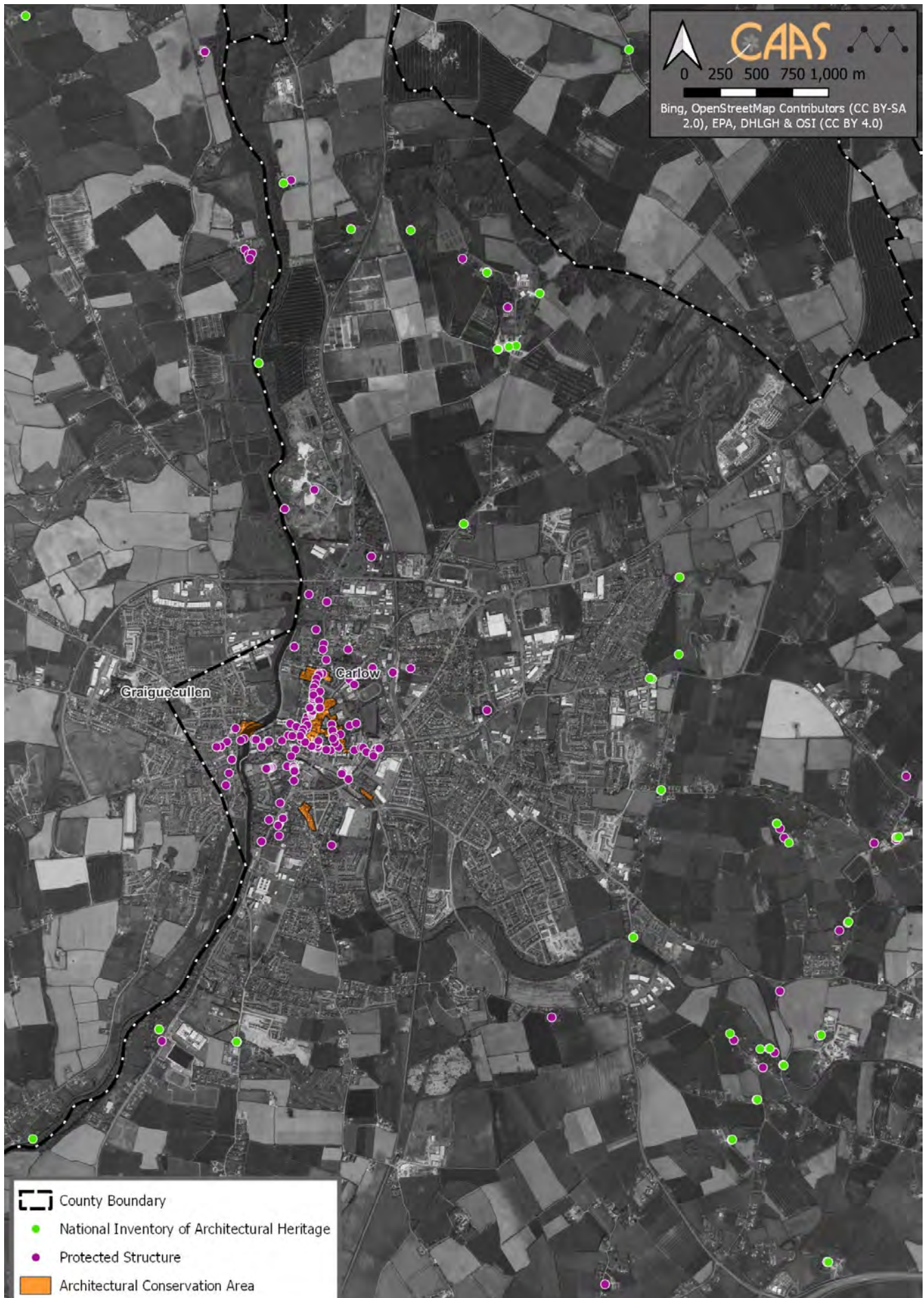


Figure 4.16 Architectural Heritage

4.13 Landscape

4.13.1 Introduction

Article 1 (a) of the European Landscape Convention provides a definition of landscape as follows; "Landscape means an area, as perceived by people whose character is the result of the action and interaction of natural/or human factors". The importance of landscape and visual amenity and the role of its protection are recognised in the Planning and Development Act 2000 as amended, which requires that Development Plans include objectives for the preservation of the landscape, views and the amenities of places and features of natural beauty.

Carlow-Graigucullen is located on mainly flat, open land. The River Barrow separates the historic core of Carlow town from Graigucullen on the western side of the river, which flows from the north to the south of the Plan area. The River Burren also traverses the Plan area, flowing from east to west in the south of the Plan area. The land surrounding the Plan area is mainly agricultural with an area of woodland to the north of the Plan area.

4.13.2 Landscape Character Assessment

The European Landscape Convention was ratified in Ireland in 2002, this required EU Member States to adopt national measures to promote landscape, planning, protection and management. The purpose of landscape character assessment is to provide the foundation for policy formulation and decision making for landscape management.

There are a range of different landscapes found within the Plan area, including historic urban core, urban area, river corridors, and demesne landscapes. Each landscape type has varying capacity to absorb development related to its overall sensitivity.

The existing Carlow County Development Plan 2022-2028 identifies four Universal Landscape Areas, seven Landscape Character Types, 64 Scenic Viewing Points and 25 Scenic Routes within the Council's administrative area.

County Laois Landscape Character Assessment has identified seven Landscape Character Areas. Other Landscape Designations in County Laois include Views and Prospects.

A number of distinct Landscape Character Types (LCTs) have been identified within Carlow-Graigucullen with regard to the Department of the Environment 'Draft Landscape and Landscape Assessment Guidelines for Planning Authorities' (2000). These LCTs are mapped on Figure 4.17. There is a total of 6 no. LCTs in the joint urban area as set out below, each of which are accompanied by general recommendations, which are intended to inform the policy framework of the Plan as well as the development management assessment and decision-making process.

1. Historic Urban Core

This LCT is indicated by early historic mapping of streets and building patterns for the joint urban area, including first ordnance survey mapping dating from the early to mid-19th century. The urban area as known today was likely established and developed as a result of the land occupying a strategic location and crossing point on the River Barrow. Key features of this LCT include:

- An urban morphology shaped by the routes of the River Barrow and Burren River.
- Fine urban grain, with small urban blocks and strong enclosure of streets.
- Building elevations with a vertical emphasis and finished with materials such as natural slate and lime renders.
- Designation as Zone of Archaeological Potential, and including Carlow Castle, a National Monument dating from the medieval period.

2. Urban Fringe Areas

The defining characteristics of this LCT include radial and orbital roads with a mixture of ribbon-style housing, some in rural idiom and others more suburban in character. These houses are often encircled with established suburban housing estates or with newer estates contiguous to agricultural lands. Other key features of this LCT include:

- The suburban layout and design of individual houses and residential estates with a formal character, contrasts with the more sinuous and

naturalised surrounding rural landscape.

- This landscape character type therefore often has a discordant appearance at the edges with abrupt distinctions between suburban areas and the surrounding rural landscape.
- Business Parks, retail warehousing, neighbourhood centres are other uses found within this LCT.
- The characteristics of this LCT mean that opportunities to represent the character or distinctiveness of the joint urban area at key gateways into same are often under-utilised and instead the visitor can be presented with an unsympathetic and unfinished transition between an attractive rural landscape and an attractive historic town centre.

3. River Corridors

Landscape character in the joint urban area is strongly influenced by the River Barrow and the Burren River. This LCT contains a wealth of historic features providing longstanding evidence of human influence on the landscape, including Carlow Castle, Graiguecullen Bridge, Burren Bridge, the Barrow Track, weirs and lock gates. Key features of this LCT include:

- The route of the River Barrow which flows north south through the joint urban area, and along which runs the Barrow Track (former towpath now a tourism and recreational asset).
- The River Barrow is at a mature stage in the joint urban area, with flat flood plains to either side.
- Mature bankside vegetation fringes the River Barrow.
- The route of the Burren River which flows generally east west through Carlow Town, flowing into the River Barrow at Pembroke. This watercourse functions as a key landscape character defining element of the environs area.
- While not exerting the same influence in the area as the River Barrow, the Burren River is also associated with floodplains, bankside vegetation, and a more recently developed walking and cycling route (Carlow Town Linear Park).

4. Lowland Agricultural Areas

Comprises primarily pastoral and tillage agriculture on the outskirts of the joint urban area. Key features of this LCT include:

- Generally, a flat open landscape with long range views towards the uplands at the Killeshin Hills.
- Field patterns tend to be of large scale and are generally bounded by deciduous hedgerows containing mature trees.
- Farm sizes are larger than average.
- Much of the area has a visually enclosed character due to mature trees and hedgerows lining roads and field boundaries, and due to areas of woodland.
- Views of landmark buildings and landscape features, including surrounding upland areas, are a characteristic of this area and should be retained because the interaction between the lowlands and uplands is an important feature of this LCT.

5. Rolling Lands with Strong Rural Boundaries

This LCT comprises an attractive gently undulating landscape enclosed by mature trees and hedgerows. Key features of the LCT include:

- Narrow public roads that are rural in character, more similar to laneways than throughfares.
- Experience of this LCT as being rural and undeveloped is emphasised by the strong enclosure of public roads with mature trees and hedgerows.
- Mature trees and hedgerows along public roads punctuated with field gates which open up occasional expansive panoramas, and views of single one-off houses of diverse styles, some unsympathetically suburban in appearance.

6. Demesne Landscape

One of the significant LCTs identified in the joint urban area is the demesne landscape. These landscapes are generally designed and associated with historic country house estates mostly dating from the 18th and 19th centuries. The extent of demesne landscapes is often indicated by gatehouses/lodges, estates walls and other structures, as well as

planting and field boundary patterns and other landscape features.

Natural features usually play a significant role in the layout and design of demesne landscapes, together with structures and planting. Features include tree-lined estate roads, ornamental lakes, woodlands, and designed panoramas and vistas. Agricultural demesne lands are often very open with standalone or clusters of mature trees arranged informally within tillage or pasture fields rather than strong hedgerows.

Two key examples of Demesne Landscapes are Oak Park Demesne and Browneshill Demesne.

4.13.3 Existing Environmental Problems

New developments have resulted in changes to the visual appearance of lands within the Plan area however legislative objectives governing landscape and visual appearance were not identified as being conflicted with.

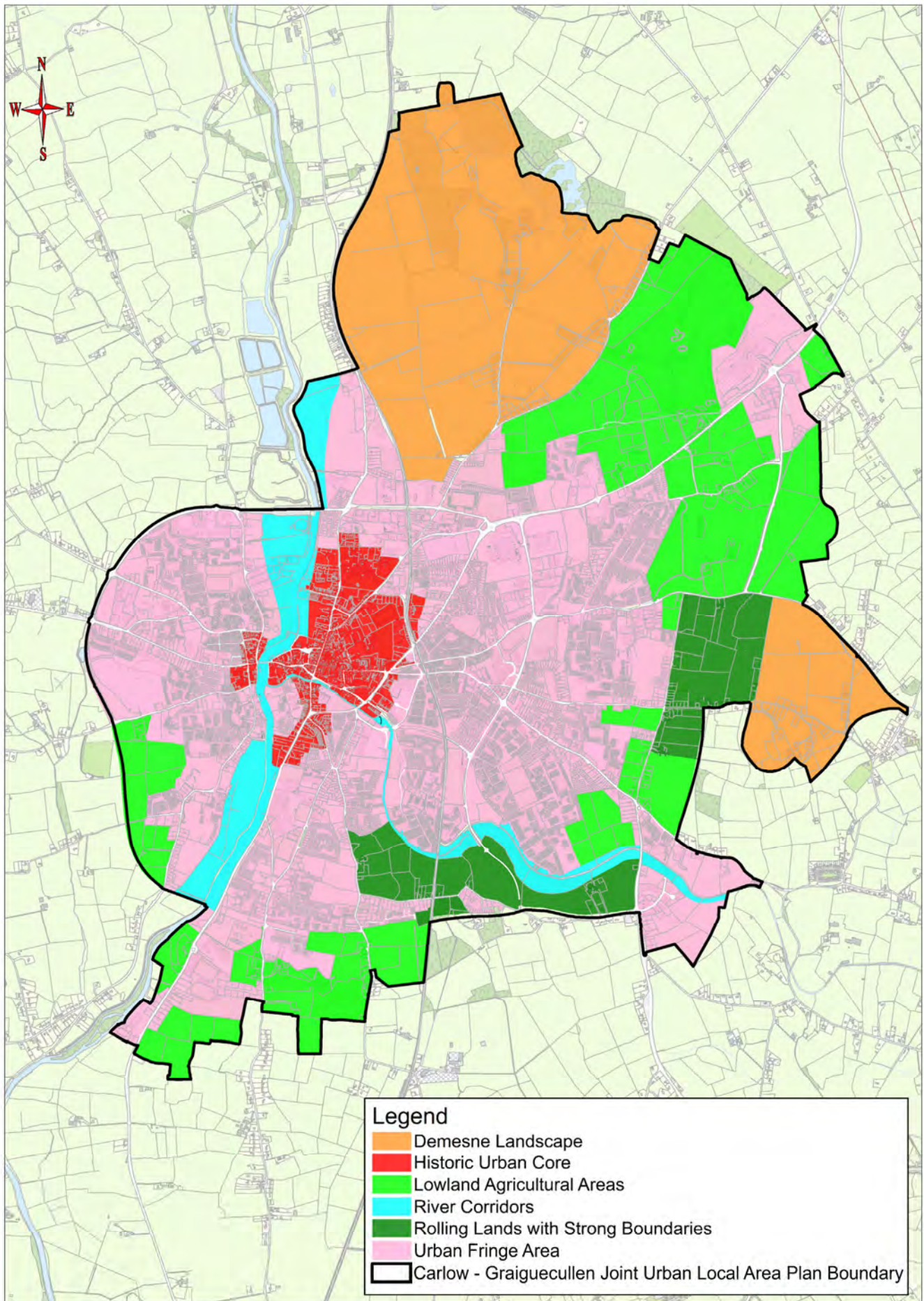


Figure 4.17 Landscape Character Types

(source: Draft Carlow-Graiguecullen Joint Urban Local Area Plan 2024-2030)

Section 5 Strategic Environmental Objectives

Strategic Environmental Objectives (SEOs) are methodological measures developed from policies that generally govern environmental protection objectives established at international, Community or Member State level e.g. the environmental protection objectives of various European Directives that have been transposed into Irish law and which are required to be implemented.

The SEOs are set out under a range of topics and are used as standards against which the provisions of the Plan and the alternatives are evaluated in order to help identify which provisions would be likely to result in significant environmental effects and where such effects would be likely to occur, if – in the case of adverse effects – unmitigated.

The SEOs are linked to indicators which can facilitate monitoring the environmental effects of the Plan as well as identifying targets which the Plan can help work towards.

All SEOs, indicators and targets are provided on Table 5.1 overleaf.

Further detail on legislation, plans and programmes are provided under Section 2 (and associated Appendix I “Relationship with Legislation and Other Policies, Plans, and Programmes”) and Section 4.

Given the position of the Local Area Plan in the land use planning hierarchy beneath the Carlow and Laois County Development Plans, the measures identified in those County Development Plan SEAs have been used as they are or having been slightly modified – in most instances. This consistency across the hierarchy of land use plans will improve the efficiency and effectiveness of future monitoring.

Table 5.1 Strategic Environmental Objectives (SEOs), Indicators and Targets

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives	Indicators	Targets
Biodiversity, Flora and Fauna	BFF	No net contribution to biodiversity losses or deterioration	<ul style="list-style-type: none"> To preserve, protect, maintain and, where appropriate, enhance the terrestrial, aquatic and soil biodiversity, particularly EU designated sites and protected species Ensure no adverse effects on the integrity of any European site, with regard to its qualifying interests, associated conservation status, structure and function Safeguard national, regional and local designated sites and supporting features which function as stepping stones for migration, dispersal and genetic exchange of wild species Enhance biodiversity in line with the National Biodiversity Strategy and its targets To protect, maintain and conserve natural capital 	<ul style="list-style-type: none"> Condition of European sites 	<ul style="list-style-type: none"> Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions in their land use plans and as a minimum, to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species Implement and review, as relevant, County Heritage and Biodiversity Plans
				<ul style="list-style-type: none"> Number of spatial plans that have included ecosystem services content, mapping and policy to protect ecosystem services when their relevant plans are either revised or drafted 	<ul style="list-style-type: none"> Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions in their land use plans and as a minimum, to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species Implement and review, as relevant, County Heritage and Biodiversity Plans
				<ul style="list-style-type: none"> SEAs and AAs as relevant for new Council policies, plans, programmes etc. 	<ul style="list-style-type: none"> Screen for and undertake SEA and AA as relevant for new Council policies, plans, programmes etc.
				<ul style="list-style-type: none"> Status of water quality in water bodies 	<ul style="list-style-type: none"> Included under Water below
				<ul style="list-style-type: none"> Compliance of planning permissions with Plan measures providing for the protection of Biodiversity and flora and fauna – see County Development Plan Chapters 10 “Natural and Built Heritage” (Carlow) and 11 “Biodiversity and Natural Heritage” (Laois) 	<ul style="list-style-type: none"> For planning permission to be only granted when applications demonstrate that they comply with all Plan measures providing for the protection of biodiversity and flora and fauna – see County Development Plan Chapters 10 “Natural and Built Heritage” (Carlow) and 11 “Biodiversity and Natural Heritage” (Laois)
Population and Human Health	PHH	Improve quality of life for all ages and abilities based on high-quality, serviced, well connected and sustainable residential, working, educational and recreational environments	<ul style="list-style-type: none"> Promote economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management Ensure that existing population and planned growth is matched with the required public infrastructure and the required services Safeguard citizens from environment-related pressures and risks to health and well-being 	<ul style="list-style-type: none"> Implementation of Plan measures relating to the promotion of economic growth as provided for by County Development Plan Chapter 4 “Enterprise and Employment” (Carlow) and Chapter 6 “Economic Development” (Laois) 	<ul style="list-style-type: none"> For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to the promotion of economic growth as provided for by County Development Plan Chapter 4 “Enterprise and Employment” (Carlow) and Chapter 6 “Economic Development” (Laois) All citizens will have access to speeds of 30Mbps, and that 50% of citizens will be subscribing to speeds of 100Mbps (Also relevant to Material Assets)
				<ul style="list-style-type: none"> Number of spatial concentrations of health problems arising from environmental factors resulting from development permitted under the Plan 	<ul style="list-style-type: none"> No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan
				<ul style="list-style-type: none"> Proportion of people reporting regular cycling / walking to school and work above previous CSO figures 	<ul style="list-style-type: none"> Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures
				<ul style="list-style-type: none"> Number of spatial plans that include specific green infrastructure mapping 	<ul style="list-style-type: none"> Require all local level land use plans to include specific green infrastructure mapping

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives	Indicators	Targets
Soil (and Land)	S	Ensure the long-term sustainable management of land	<ul style="list-style-type: none"> • Protect soils against pollution, and prevent degradation of the soil resource • Promote the sustainable use of infill and brownfield sites over the use of greenfield • Safeguard areas of prime agricultural land and designated geological sites 	<ul style="list-style-type: none"> • Proportion of population growth occurring on infill and brownfield lands compared to greenfield (also relevant to Material Assets) 	<ul style="list-style-type: none"> • Maintain built surface cover nationally to below the EU average of 4% as per the NPF • In accordance with National Policy Objectives 3c of the National Planning Framework, a minimum of 30% of the housing growth targeted in any settlement is to be delivered within the existing built-up footprint of the settlement • To map brownfield and infill land parcels
				<ul style="list-style-type: none"> • Instances where contaminated material generated from brownfield and infill must be disposed of 	<ul style="list-style-type: none"> • Dispose of contaminated material in compliance with EPA guidance and waste management requirements
				<ul style="list-style-type: none"> • Environmental assessments and AAs as relevant for applications for brownfield and infill development prior to planning permission 	<ul style="list-style-type: none"> • Screen for and undertake environmental assessments and AA as relevant for applications for brownfield and infill development prior to planning permission
Water	W	Protection, improvement and sustainable management of the water resource	<ul style="list-style-type: none"> • Ensure that the status of water bodies is protected, maintained and improved in line with the requirements of the Water Framework Directive • Ensure water resources are sustainably managed to deliver proposed regional and County growth targets in the context of existing and projected water supply and wastewater capacity constraints ensuring the protection of receiving environments • Avoid inappropriate zoning and development in areas at risk of flooding and areas that are vulnerable to current and future erosion • Integrate sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals 	<ul style="list-style-type: none"> • Status of water bodies as reported by the EPA Water Monitoring Programme for the WFD 	<ul style="list-style-type: none"> • Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status' • Implementation of the objectives of the River Basin Management Plan
				<ul style="list-style-type: none"> • Number of incompatible developments permitted within flood risk areas 	<ul style="list-style-type: none"> • Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk
Material Assets	MA	Sustainable and efficient use of natural resources	<ul style="list-style-type: none"> • Optimise existing infrastructure and provide new infrastructure to match population distribution proposals - this includes transport infrastructure • Ensure access to affordable, reliable, sustainable and modern energy for all which encourages a broad energy generation mix to ensure security of supply – wind, solar, hydro, biomass, energy from waste and traditional fossil fuels • Promote the circular economy, reduce waste, and increase energy efficiencies • Ensure there is adequate sewerage and drainage infrastructure in place to support new 	<ul style="list-style-type: none"> • Programmed delivery of Uisce Éireann infrastructure for all key growth towns in line with Uisce Éireann Investment Plan and prioritisation programme to ensure sustainable growth can be accommodated • Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Plan 	<ul style="list-style-type: none"> • All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan • Where septic tanks are proposed, for planning permission to be only granted when applications demonstrate that the outfall from the septic tank will not – in- combination with other septic tanks– contribute towards any surface or ground water body not meeting the objective of good status under the Water Framework Directive • Facilitate, as appropriate, Uisce Éireann in developing water and wastewater infrastructure • See also targets relating to greenfield and brownfield development of land under Soil and broadband under Population and Human Health

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives	Indicators	Targets
			<ul style="list-style-type: none"> development Reduce the energy demand from the transport sector and support moves to electrification of road and rail transport modes Encourage the transition to a zero-carbon economy by facilitating the development of a grid infrastructure to support renewables and international connectivity. Reduce the average energy consumption per capita including promoting energy efficient buildings, retrofitting, smart- buildings, cities and grids 	<ul style="list-style-type: none"> Proportion of people reporting regular cycling / walking to school and work above previous CSO figures 	<ul style="list-style-type: none"> Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures
Air	A	Support clean air policies that reduce the impact of air pollution on the environment and public health	<ul style="list-style-type: none"> To avoid, prevent or reduce harmful effects on human health and the environment as a whole resulting from emissions to air from all sectors with particular reference to emissions from transport, residential heating, industry and agriculture Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency Promote continuing improvement in air quality Reduction of emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter which are responsible for acidification, eutrophication and ground-level ozone pollution Meet Air Quality Directive standards for the protection of human health — Air Quality Directive Significantly decrease noise pollution and move closer to WHO recommended levels 	<ul style="list-style-type: none"> Proportion of journeys made by private fossil fuel-based car compared to previous National Travel Survey levels NO_x, SO_x, PM10 and PM2.5 as part of Ambient Air Quality Monitoring 	<ul style="list-style-type: none"> Decrease in proportion of journeys made by private fossil fuel-based car compared to previous National Travel Survey levels Improvement in Air Quality trends, particularly in relation to transport related emissions of NO_x and particulate matter
Climatic Factors ⁵²	C	Achieving transition to a competitive, low carbon, climate-resilient economy that is cognisant of environmental impacts	<ul style="list-style-type: none"> To minimise emissions of greenhouse gasses Integrate sustainable design solutions into infrastructure (e.g. energy efficient buildings; green infrastructure) Contribute towards the reduction of greenhouse gas emissions in line with national targets Promote development resilient to the effects of climate change Promote the use of renewable energy, energy efficient development and increased use of public transport 	<ul style="list-style-type: none"> Implementation of Plan measures relating to climate reduction targets 	<ul style="list-style-type: none"> For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to climate reduction targets – including the legally binding targets of the Climate Action and Low Carbon Development Act 2015, as amended, for Ireland to reach a target of net-zero emissions no later than 2050, and a cut of 51% by 2030 (compared to 2018 levels).
				<ul style="list-style-type: none"> A competitive, low-carbon, climate-resilient and environmentally sustainable economy 	<ul style="list-style-type: none"> Contribute towards transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050
			<ul style="list-style-type: none"> Share of renewable energy in transport 	<ul style="list-style-type: none"> Contribute towards the target of the Renewable Energy Directive (2009/28/EC), for all Member States to reach a 10% share of renewable energy in transport by facilitating the development of electricity charging and 	

⁵² Please also refer to relevant legislation and requirements under Section 4.10, Section 8.5 and Appendix I. Targets under the national Climate Action Plan are reviewed and updated periodically.

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives	Indicators	Targets
					transmission infrastructure, in compliance with the provisions of the Plan
				<ul style="list-style-type: none"> • Energy consumption, the uptake of renewable options and solid fuels for residential heating 	<ul style="list-style-type: none"> • To promote reduced energy consumption and support the uptake of renewable options and a move away from solid fuels for residential heating
				<ul style="list-style-type: none"> • Proportion of journeys made by private fossil fuel-based car compared to previous levels 	<ul style="list-style-type: none"> • Decrease in the proportion of journeys made by residents of the using private fossil fuel-based car compared to previous levels
				<ul style="list-style-type: none"> • Proportion of people reporting regular cycling / walking to school and work above previous CSO figures 	<ul style="list-style-type: none"> • Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures
Cultural Heritage	CH	Safeguard cultural heritage features and their settings through responsible design and positioning of development	Protect places, features, buildings and landscapes of cultural, archaeological or architectural heritage	<ul style="list-style-type: none"> • Percentage of entries to the Record of Monuments and Places, and the context these entries within the surrounding landscape where relevant, protected from adverse effects resulting from development which is granted permission under the Plan 	<ul style="list-style-type: none"> • Protect entries to the Record of Monuments and Places, and the context of these entries within the surrounding landscape where relevant, from adverse effects resulting from development which is granted permission under the Plan
				<ul style="list-style-type: none"> • Percentage of entries to the Record of Protected Structures and Architectural Conservation Areas and their context protected from significant adverse effects arising from new development granted permission under the Plan 	<ul style="list-style-type: none"> • Protect entries to the Record of Protected Structures and Architectural Conservation Areas and their context from significant adverse effects arising from new development granted permission under the Plan
Landscape	L	Protect and enhance the landscape character	To implement the Plan's framework for identification, assessment, protection, management and planning of landscapes having regard to the European Landscape Convention	<ul style="list-style-type: none"> • Number of developments permitted that result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan 	<ul style="list-style-type: none"> • No developments permitted which result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan

Section 6 Description of Alternatives

6.1 Introduction

The SEA Directive requires that reasonable alternatives (taking into account the objectives and the geographical scope of the plan or programme) are identified, described and evaluated for their likely significant effects on the environment.

Alternatives for the Plan are identified under a number of types below and assessed in Section 7.

6.2 Limitations in Available Alternatives

The Plan is required to be prepared by the existing, already in force, Carlow and Laois County Development Plans and the Planning and Development Act 2000 (as amended), which specifies various types of objectives that must be provided for by the Plan.

The alternatives available for the Plan are significantly limited by the provisions of higher-level planning objectives, including those of the National Planning Framework, the Regional Spatial and Economic Strategy for the Eastern and Midland Region, the Regional Spatial and Economic Strategy for the Southern Region and the County Development Plans. These documents set out various requirements for the content of the Plan including on topics such as land use zoning and the sustainable development of towns, including Carlow-Graiguecullen.

6.3 Alternatives Already Considered

The preparation of the Carlow and Laois County Development Plans and associated SEA process already considered various different types of alternatives, including those relating to land use zoning and densities. The selected alternatives for the County Development Plans set requirements for lower tier planning in the County and have been integrated into the Local Area Plan as appropriate.

6.4 Compact Development Alternatives

Carlow County Council and Laois County Council in preparing a Draft Joint Urban Local Area Plan (JULAP) for public display for Carlow-Graiguecullen developed the following alternatives for compact development (there are various alternative components under each alternative):

Compact Development Alternative A: "More Consolidated, More Compact Development"

- Carlow-Graiguecullen to reach population allocation, resulting in balanced orderly development and implementation of the Core Strategies of the Carlow County Development Plan 2022-2028 and the Laois County Development Plan 2021-2027.
- This alternative involves preparing the JULAP using a Serviced/Serviceable Land and Infrastructure Assessment approach. Methodologies for this approach are set out in higher level documents, including the National Planning Framework and the 2013 Local Area Plan Guidelines for Planning Authorities.
- The infrastructure required to be in place to achieve the growth targets is already in place or planned.
- Residential Development to take place on New Residential and Existing/Infill Residential lands over the lifetime of the JULAP, with 30% expected on Town Centre lands.
- Development proposals would be developed in a planned and coordinated manner focused within the town centre.
- Intervention areas, including strategic and regeneration sites are identified with clear design and proposed uses provided.

Compact Development Alternative B “Less Consolidated, Less Compact Development”

- Carlow-Graigucullen to reach population allocation, resulting in balanced orderly development and implementation of the core strategies of the Carlow County Development Plan 2022-2028 and the Laois County Development Plan 2021-2027.
- This alternative involves preparing the JULAP while not using the Serviced Land and Infrastructure Assessment approach.
- Additional infrastructure would be required to accommodate sporadic development, more than would be required for Alternative A “More Consolidated, More Compact Development” and some development may have to be serviced by private waste water treatment systems which would have to be properly maintained.
- Residential Development to take place on New Residential, Existing/Infill Residential and certain peripheral, outer fringe lands (beyond the existing development envelope) over the lifetime of the Plan, with 30% less likely to be achieved on Town Centre lands (in comparison with Alternative A “More Consolidated, More Compact Development”).
- Town centre development would be sporadic and uncoordinated around the Town centre zonings.
- Industry would occur at locations including those close to residential development.
- Strategic and regeneration sites are identified but no clear guidance on the design parameters or uses provided.

6.5 Ecosystem Services Approach Alternatives

The importance of fulfilling natural capital⁵³ and ecosystem⁵⁴ service obligations has increasingly emerged in recent years. An Ecosystems Services Approach would provide a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. An Ecosystems Services Approach would include the integration of ecological considerations at a local level across the JULAP area.

- **Ecosystem Services Approach Alternative A:** A JULAP that follows an Ecosystems Services Approach to a greater degree
- **Ecosystem Services Approach Alternative B:** A JULAP that does not follow, or follows to a lesser degree, an Ecosystems Services Approach

6.6 Area Based Transport Assessment Alternatives

In line with the County Development Plans, the creation of a compact and connected Carlow-Graigucullen joint urban area could be achieved by integrating land use and transportation policy, thus promoting compact climate resilient growth and ensuring that people can easily access their homes, employment, education and the services they require by walking cycling or use of public transport. An Area Based Transport Assessment would seek to maximise opportunities for the integration of land use and transport planning, with an emphasis on cycling, walking and public transport and delivering on the “10-minute neighbourhood” concept.

- **Area Based Transport Assessment Alternative A:** Inform the JULAP with an Area Based Transport Assessment, which focuses on delivering travel solutions that support moving people from the private car to more sustainable modes.
- **Area Based Transport Assessment Alternative B:** Do not inform the JULAP with an Area Based Transport Assessment, which focuses on delivering travel solutions that support

⁵³ Renewable and non-renewable resources (e.g. plants, animals, air, water, soils, minerals).

⁵⁴ Ecosystems are multifunctional communities of living organisms interacting with each other and their environment. Ecosystems provide a series of services for human well-being (ecosystem services) either directly or indirectly contributing towards human well-being.

moving people from the private car to more sustainable modes, relying solely on existing provisions, including those of the County Development Plans.

6.7 Built Heritage Alternatives

Built heritage in the Carlow-Graiguecullen joint urban area includes both architectural and archaeological heritage. These alternatives consider the degree to which built heritage and conservation are provided for at a local level in Carlow-Graiguecullen.

- **Built Heritage Alternative A:** A JULAP that adds detailed, local-level provisions to the existing planning framework relating to the conservation of built heritage.
- **Built Heritage Alternative B:** A JULAP that does not add detailed, local-level provisions to the existing planning framework relating to the conservation of built heritage, relying solely on existing provisions, including those included as part of the County Development Plans.

Section 7 Evaluation of Alternatives

7.1 Introduction

This section provides a comparative evaluation of the likely significant environmental effects⁵⁵ of implementing available alternatives that are described in Section 6. This determination sought to understand whether each alternative was likely to improve conflict with or have a neutral interaction with the receiving environment.

7.2 Methodology

The relevant aspects of the current state of the environment (see Section 4) and the Strategic Environmental Objectives (see Section 5 and Table 7.1) are used in the assessment of alternatives.

The alternatives are evaluated using compatibility criteria (see Table 7.2 below) in order to determine how they would be likely to affect the status of the existing environment and the SEOs. The SEOs and the alternatives are arrayed against each other in order to demonstrate which interactions would cause effects on specific components of the environment. Where the appraisal identifies an interaction with the status of an SEO the relevant SEO code is entered into the relevant column.

The interactions identified are reflective of likely significant environmental effects:

- Interactions that would be *likely to improve the status* of a particular SEO would be likely to contribute towards a significant positive effect on the environmental component to which the SEO relates, including in-combination with the existing statutory planning/decision-making and consent-granting framework.
- Interactions that would *potentially conflict with the status of an SEO and would be likely to be mitigated* would be likely to result in potential significant negative effects; however, these effects could be mitigated by integrating measures into the Plan.
- Interactions that would probably *conflict with the status of an SEO and would be unlikely to be mitigated* would be likely to result in a significant residual negative effect on the environmental component to which the SEO relates.

Effects considered include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

The degree of significance of effects occurring cannot be fully determined at this level of decision making due to the lack of exact detail available with regard to the type or scale of development that will be permitted under the Plan. However, a strategic assessment can be undertaken.

Table 7.1 Strategic Environmental Objectives⁵⁶

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives
Biodiversity, Flora and Fauna	BFF	No net contribution to biodiversity losses or deterioration	<ul style="list-style-type: none"> • To preserve, protect, maintain and, where appropriate, enhance the terrestrial, aquatic and soil biodiversity, particularly EU designated sites and protected species • Ensure no adverse effects on the integrity of any European site, with regard to its qualifying interests, associated conservation status, structure and function • Safeguard national, regional and local designated sites and supporting features which function as stepping stones for migration, dispersal and genetic exchange of wild species • Enhance biodiversity in line with the National Biodiversity Strategy and its targets • To protect, maintain and conserve natural capital

⁵⁵ These effects include secondary, cumulative (see also Section 8.2), synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

⁵⁶ See also Section 5

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives
Population and Human Health	PHH	Improve quality of life for all ages and abilities based on high-quality, serviced, well connected and sustainable residential, working, educational and recreational environments	<ul style="list-style-type: none"> Promote economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management Ensure that existing population and planned growth is matched with the required public infrastructure and the required services Safeguard citizens from environment-related pressures and risks to health and well-being
Soil (and Land)	S	Ensure the long-term sustainable management of land	<ul style="list-style-type: none"> Protect soils against pollution, and prevent degradation of the soil resource Promote the sustainable use of infill and brownfield sites over the use of greenfield Safeguard areas of prime agricultural land and designated geological sites
Water	W	Protection, improvement and sustainable management of the water resource	<ul style="list-style-type: none"> Ensure that the status of water bodies is protected, maintained and improved in line with the requirements of the Water Framework Directive Ensure water resources are sustainably managed to deliver proposed regional and County growth targets in the context of existing and projected water supply and wastewater capacity constraints ensuring the protection of receiving environments Avoid inappropriate zoning and development in areas at risk of flooding and areas that are vulnerable to current and future erosion Integrate sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals
Material Assets	MA	Sustainable and efficient use of natural resources	<ul style="list-style-type: none"> Optimise existing infrastructure and provide new infrastructure to match population distribution proposals - this includes transport infrastructure Ensure access to affordable, reliable, sustainable and modern energy for all which encourages a broad energy generation mix to ensure security of supply – wind, solar, hydro, biomass, energy from waste and traditional fossil fuels Promote the circular economy, reduce waste, and increase energy efficiencies Ensure there is adequate sewerage and drainage infrastructure in place to support new development Reduce the energy demand from the transport sector and support moves to electrification of road and rail transport modes Encourage the transition to a zero-carbon economy by facilitating the development of a grid infrastructure to support renewables and international connectivity. Reduce the average energy consumption per capita including promoting energy efficient buildings, retrofitting, smart- buildings, cities and grids.
Air	A	Support clean air policies that reduce the impact of air pollution on the environment and public health	<ul style="list-style-type: none"> To avoid, prevent or reduce harmful effects on human health and the environment as a whole resulting from emissions to air from all sectors with particular reference to emissions from transport, residential heating, industry and agriculture Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency Promote continuing improvement in air quality Reduction of emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter which are responsible for acidification, eutrophication and ground-level ozone pollution Meet Air Quality Directive standards for the protection of human health – Air Quality Directive Significantly decrease noise pollution and move closer to WHO recommended levels

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives
Climatic Factors ⁵⁷	C	Achieving transition to a competitive, low carbon, climate-resilient economy that is cognisant of environmental impacts	<ul style="list-style-type: none"> To minimise emissions of greenhouse gasses Integrate sustainable design solutions into infrastructure (e.g. energy efficient buildings; green infrastructure) Contribute towards the reduction of greenhouse gas emissions in line with national targets Promote development resilient to the effects of climate change Promote the use of renewable energy, energy efficient development and increased use of public transport
Cultural Heritage	CH	Safeguard cultural heritage features and their settings through responsible design and positioning of development	Protect places, features, buildings and landscapes of cultural, archaeological or architectural heritage
Landscape	L	Protect and enhance the landscape character	To implement the Plan's framework for identification, assessment, protection, management and planning of landscapes having regard to the European Landscape Convention

Table 7.2 Criteria for appraising the effect of the Alternatives on SEOs

Likely to Improve status of SEOs +	Potential Conflict with status of SEOs - likely to be mitigated -	Probable Conflict with status of SEOs - unlikely to be mitigated -	No Likely interaction with status of SEOs 0
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⁵⁷ Please also refer to relevant legislation and requirements under Section 4.10, Section 8.5 and Appendix I. Targets under the national Climate Action Plan are reviewed and updated periodically.

7.3 Detailed Assessment of Alternatives

7.3.1 Effects Common to all Alternatives

Each of the alternatives envisage – in compliance with the robust policy framework in place at national, regional and county level – sustainable development and compact growth in the Plan area. As such, various potential environmental effects are common to each of the alternatives. The environmental effects detailed on would be present, some to varying degrees, under the different alternatives.

Table 7.3 Effects Common to All Alternatives

Environmental Component	Significant Positive Effect, likely to occur	Potentially Significant Adverse Environmental Effects, if unmitigated
Biodiversity and Flora and Fauna	<ul style="list-style-type: none"> • Contribution towards protection of ecology (including designated sites, ecological connectivity, habitats) by facilitating development of lands (including those within and adjacent to the town's core areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the Plan area and beyond. • Sustains existing sustainable rural management practices – and the communities who support them – to ensure the continuation of long-established managed landscapes and the flora and fauna that they contain. 	<p>Arising from both construction and operation of development and associated infrastructure:</p> <ul style="list-style-type: none"> • Loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna; • Habitat loss, fragmentation and deterioration, including patch size and edge effects; and • Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species such as birds (e.g. swifts) and bats.
Population and Human Health	<ul style="list-style-type: none"> • Promotion of economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management. • Contribution towards appropriate provision of infrastructure and services to existing population and planned growth by facilitating compact development of lands (including those within and adjacent to the town's core areas) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the Plan area and beyond • Contribution towards the protection of human health by facilitating development of lands (including those within and adjacent to the town's core areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the Plan area and beyond. 	<ul style="list-style-type: none"> • Potential adverse effects arising from flood events. • Potential interactions if effects arising from environmental vectors.
Soil	<ul style="list-style-type: none"> • Contribution towards the protection of soils (including those used for agriculture) and designated sites of geological heritage by facilitating development of lands (including those within and adjacent to the town's core areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the Plan area and beyond. 	<ul style="list-style-type: none"> • Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of development on contaminated lands. • Potential for riverbank erosion.

Environmental Component	Significant Positive Effect, likely to occur	Potentially Significant Adverse Environmental Effects, if unmitigated
Water	<ul style="list-style-type: none"> Contribution towards the protection of water by facilitating development of lands (including those within and adjacent to the town's core areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the Plan area and beyond. 	<ul style="list-style-type: none"> Potential adverse effects upon the status of water bodies and entries to the WFD Register of Protected Areas (ecological and human value), arising from changes in quality, flow and/or morphology. Increase in flood risk and associated effects associated with flood events.
Material Assets	<ul style="list-style-type: none"> Contribution towards appropriate provision of infrastructure and services to existing population and planned growth by facilitating compact development of lands (including those within and adjacent to the town's core areas) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the Plan area and beyond. Contribution towards limits in increases in energy demand from the transport sector by facilitating sustainable compact growth. 	<ul style="list-style-type: none"> Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts). Failure to adequately treat surface water run-off that is discharged to water bodies (water services infrastructure and capacity ensures the mitigation of potential conflicts). Failure to comply with drinking water regulations and serve new development with adequate drinking water (water services infrastructure and capacity ensures the mitigation of potential conflicts). Increases in waste levels. Potential impacts upon public assets and infrastructure. Interactions between agricultural waste and soil, water, biodiversity and human health – including as a result of emissions of ammonia from agricultural activities (e.g. manure handling, storage and spreading) and the production of secondary inorganic particulate matter.
Air and Climatic Factors	<ul style="list-style-type: none"> Contribution towards climate mitigation and adaptation by facilitating compact development of lands (including those within and adjacent to the town's core areas) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the Plan area and beyond. 	<ul style="list-style-type: none"> Potential conflict between development under the Plan and aiming to reduce carbon emissions in line with local, national and European environmental objectives. Potential conflicts between transport emissions, including those from cars, and air quality. Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors. Potential conflicts with climate adaptation measures including those relating to flood risk management.
Cultural Heritage	<ul style="list-style-type: none"> Contributes towards protection of cultural heritage elsewhere by facilitating development within the Plan area. 	<ul style="list-style-type: none"> Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.
Landscape	<ul style="list-style-type: none"> Contributes towards protection of wider landscape and landscape designations by facilitating development within the Plan area. 	<ul style="list-style-type: none"> Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.

7.3.2 Assessment of Type 2: Compact Development Alternatives

Compact Development Alternative A: "More Consolidated, More Compact Development"

Under this Compact Development Alternative, the Town would reach its population allocation under the core strategies as contained in the Carlow and Laois County Development Plans.

The approach under this alternative would allow for water supply, waste water, compact growth, public transport and co-ordinated development considerations to be integrated into the Plan to the highest degree.

The infrastructure required to be in place to achieve the growth targets is already in place or planned under this alternative.

The development of the town centre would be more compact and sustainable under this scenario and would better support the longer-term viability of the settlement. 30% of residential units would be expected to take place in the core areas of the town with a greater focus on use of consolidation and regeneration sites, with potential for wider regeneration benefits to the town centre, including housing provision. Regeneration, reuse and redevelopment of more central and brownfield and infill lands and optimising the use of vacant, derelict, and underutilised sites and buildings would be more likely to be achieved. There would be potential for greater support for and use of funding mechanisms such as Urban Renewal Development Fund and potential for increased densities and building heights on Town Centre zoned lands. This approach would facilitate the fulfilment of actions and intervention areas in Project Carlow 2040 – A Vision for Regeneration.

Giving a strong preference to lands that have both greater capacity to satisfy the principles of active travel and a more realistic opportunity of being developed over the lifetime of the Plan and giving a focus to strategic and regeneration sites (with clear design and uses identified – making successful applications for the sustainable, compact development of the town more likely) would allow for the proper planning and sustainable development of the town as envisaged by the wider planning framework to the greatest degree.

There would be greater potential and viability for integrated land use and transportation under this alternative, including proximate development patterns linked by active travel infrastructure and public transport. Associated benefits and improvements to the public realm and appearance of the built environment, including liveability and quality of life improvements, would be more likely.

This Compact Development Alternative would make the greatest contribution towards the protection and management of the environment by facilitating development of lands (including those within and adjacent to the town's core areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-served lands elsewhere in the Plan area and beyond. There would be a reduced need for greenfield land consumption under this alternative. This Compact Development Alternative would be considered the most effective out of both Compact Development Alternatives considered in the delivery of a sustainable, low carbon and climate resilient future for the town.

The approach under Compact Development Alternative A 'More Consolidated, More Compact Development' would benefit the protection of various environmental components. Although potentially adverse effects associated with land use development would exist, they would be mitigated to a significant degree. Less residual environmental effects would result.

Under this alternative there would be:

- More optimum use of land and resources, with positive role for addressing climate change, such as potential for reduced carbon heavy travel patterns.
- Greater potential for modal shift to sustainable travel such as walking, cycling and public transport, with knock on benefits for climate resilience in the joint urban area.
- Use of already serviced lands in more central and built-up urban area could lead to potential reduced costs for delivery of new supporting infrastructure.
- Creation of more liveable built environments, with greater accessibility to services and amenities for local communities.

Compact Development Alternative B: "Less Consolidated, Less Compact Development"

Under this Compact Development Alternative, the Town would reach its population allocation under the core strategies as contained in the Carlow and Laois County Development Plans.

The approach under this alternative would not allow for water supply, waste water, compact growth, public transport and co-ordinated development considerations to be integrated into the Plan to the highest degree.

Additional infrastructure would be required to accommodate sporadic development, more than would be required for Alternative A 'More Consolidated, More Compact Development' and some development may have to be serviced by private waste water treatment systems which would have to be properly maintained.

The development of the Town Centre would be less compact and less sustainable under this scenario and would not optimally support the longer-term viability of the settlement. 30% of residential development would be less likely to be achieved in core areas in comparison with Alternative A 'More Consolidated, More Compact Development'. Under this alternative there would be potential for greater proportion of housing to be delivered outside of the built-up area, including on urban fringe and outer suburban areas and on greenfield sites, creating unsustainable travel patterns with a reliance on the private car. Giving less of a preference to lands that have both greater capacity to satisfy the principles of active travel and a more realistic opportunity of being developed over the lifetime of the Plan and giving less of a focus to strategic and regeneration sites (there would be no clear guidance on the design parameters or uses provided – making successful applications for the sustainable, compact development of the town less likely) would allow for the proper planning and sustainable development of the town as envisaged by the wider planning framework to a lesser degree.

There would be greater potential for negative impacts on the vitality and viability of the built-up area (including town centre), due to increased and sustained levels of vacancy and dereliction for existing buildings and brownfield lands. This alternative would result in a more dispersed pattern of low-density urban development, that would be more difficult to serve with active travel infrastructure and public transport. There would be potential to undermine the delivery of actions and intervention areas in Project Carlow 2040 – A Vision for Regeneration.

This Compact Development Alternative would make less of a contribution towards the protection and management of the environment by facilitating development of lands (including those within and adjacent to the town's core areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services. Demand to develop more sensitive, less well-served lands elsewhere in the Plan area would be provided for. This Compact Development Alternative would be considered the least effective out of both Compact Development Alternatives considered in the delivery of a sustainable, low carbon and climate resilient future for the town.

The approach under Alternative B 'Less Consolidated, Less Compact Development' would benefit the protection of various environmental components to a lesser degree. Although potentially adverse effects associated with land use development would exist, they would be mitigated to in many cases; however, more residual environmental effects would result.

Under this alternative there would be:

- An increase in car dependency and associated carbon heavy travel patterns, which would undermine efforts aimed at securing climate resilience.
- Increased suburban pattern of residential development with potential for self-contained and disconnected built environments.
- Reduced potential for modal shift to sustainable travel options such as walking, cycling and public transport.
- Potential for increased costs associated with the delivery on new supporting infrastructure (roads, footpaths etc.) in more peripheral and outer suburban areas.
- Increased costs for the delivery of necessary supporting infrastructure for urban fringe, outer suburban areas and greenfield sites.

Compact Development Alternatives are assessed against Strategic Environmental Objectives on Table 7.4.

Selected Compact Development Alternative for the Plan: A "More Consolidated, More Compact Development"

Table 7.4 Assessment of Compact Development Alternatives against SEOs

Compact Development Alternative (selected alternative indicated in bold)	Likely to Improve status of SEOs		Potential Conflict with status of SEOs - likely to be mitigated		Probable Conflict with status of SEOs - unlikely to be mitigated	No Likely interaction with status of SEOs
	+		-		-	0
	to ^a Greater degree	to ^a Lesser degree	to ^a Lesser degree	to ^a Greater degree		
A. "More Consolidated, More Compact Development"	BFF PHH S W MA A C CH L		BFF PHH S W MA A C CH L			
B. "Less Consolidated, Less Compact Development"		BFF PHH S W MA A C CH L		BFF PHH S W MA A C CH L		

7.3.3 Assessment of Ecosystem Services Approach Alternatives

Ecosystem Services Approach Alternative A "A JULAP follows an Ecosystems Services Approach to a greater degree" would integrate a strategy throughout the Plan for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.

Principles that would be integrated throughout the Plan, in a coordinated and comprehensive manner, would include:

- Consideration of natural systems - by using knowledge of interactions in nature and how ecosystems function
- Taking into account of the services that ecosystems provide - including those that underpin social and economic well-being, such as flood and climate regulation or recreation, culture and quality of life
- Involving people - those who benefit from the ecosystem services and those managing them need to be involved in decisions that affect them.

This would mean that there would be:

- An increased likelihood in the extent, magnitude and frequency of positive effects occurring with regard to natural capital⁵⁸ and ecosystem service issues, such as the management of air quality, noise pollution, light pollution, pollination, flood risk, water bodies and river basins and natural resources supporting energy production and recreation; and
- A decreased likelihood in the extent, magnitude and frequency of adverse effects on natural capital and ecosystem services.

Ecosystem Services Approach Alternative A "A JULAP follows an Ecosystems Services Approach to a greater degree" would, to the greatest extent:

- Underpin the requirement for nature-based solutions (and green infrastructure) to be incorporated into development proposals at the detailed design stage, with corresponding recognition of the role natural environment in moderating and adapting to the effects of climate change.
- Contribute to flood prevention and storage capacity measures for development proposals in the joint urban area.

⁵⁸ Renewable and non-renewable resources (e.g. plants, animals, air, water, soils, minerals)

- In the formulation of the layout and design of development proposals, contribute to a focus on the conservation, protection and restoration of the natural environment in the joint urban area.
- Encourage the use of SuDS for development proposals in the joint urban area, offering a more sustainable approach to the management of urban storm water runoff than impermeable surfaces, and conventional underground pipe and storage-based solution. This would contribute to offsetting the impacts of climate change and increase climate resilience.
- Provide more benefits for recreation, amenity, and biodiversity.
- Promote more healthy living environments for local communities.
- Contribute to a reduction in greenhouse gas emissions.
- Improve health and wellbeing.

Ecosystem Services Approach Alternative B: “A JULAP that does not does not follow, or follows to a lesser degree, an Ecosystems Services Approach” would not integrate a strategy throughout the Plan for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.

As has been the case over previous plan periods, many natural capital and ecosystem service issues would be integrated into individual Plan Policy Objectives and into decision making at lower tiers of plan preparation and development management. However, this approach would be less coordinated and comprehensive than would be the case under an Ecosystems Services Approach.

This would mean that there would be:

- A decreased likelihood in the extent, magnitude and frequency of positive effects occurring with regard to natural capital and ecosystem service issues; and
- An increased likelihood in the extent, magnitude and frequency of adverse effects on natural capital and ecosystem services.

Ecosystem Services Approach Alternative B: “A JULAP that does not does not follow, or follows to a lesser degree, an Ecosystems Services Approach” would result in:

- Greater potential for focus and reliance on conventional less sustainable surface water drainage methods in the joint urban area, such as single function piped drainage and attenuation/storage measures.
- Reduced climate resilience in the built environment.
- Reduced scope for introduction of nature-based flood alleviation measures in development proposals.
- Greater potential for increased costs in the delivery of conventional surface water drainage infrastructure.
- Greater potential for biodiversity and habitat fragmentation.
- Reduced potential for urban greening measures in the built environment.

Ecosystem Services Approach Alternatives are assessed against Strategic Environmental Objectives on Table 7.5.

Selected Ecosystem Services Approach Alternative for the Plan: A “A JULAP follows an Ecosystems Services Approach to a greater degree”

Table 7.5 Assessment of Ecosystem Services Approach Alternatives against SEOs

Ecosystem Services Approach Alternatives (selected alternative indicated in bold)	Likely to Improve status of SEOs		Potential Conflict with status of SEOs - likely to be mitigated		Probable Conflict with status of SEOs - unlikely to be mitigated	No Likely interaction with status of SEOs
	+		-		-	0
	to Greater degree ^a	to Lesser degree ^a	to Lesser degree ^a	to Greater degree ^a		
A. "A JULAP follows an Ecosystems Services Approach to a greater degree"	BFF PHH S W MA A C CH L		BFF PHH S W MA A C CH L			
B: "A JULAP that does not does not follow, or follows to a lesser degree, an Ecosystems Services Approach"		BFF PHH S W MA A C CH L		BFF PHH S W MA A C CH L		

7.3.4 Assessment of Area Based Transport Assessment Alternatives

Informing the JULAP with an Area Based Transport Assessment, which focuses on delivering travel solutions that support moving people from the private car to more sustainable modes, (**Area Based Transport Assessment Alternative A**) would provide a more coordinated and more orderly provision of transport infrastructure and services, with delivery of projects, and associated benefit with respect to sustainable mobility and compact development, more likely. This approach would be more likely to improve the potential for meeting important objectives relating to emissions and energy use. Potentially adverse impacts on environmental components including ecology and water would need to be adequately mitigated at project level.

Area Based Transport Assessment Alternative A would:

- Support greater alignment between and integration of land use planning and transport planning.
- Ensure the assessment of transport demand and its associated impact informs the scale of development proposals, including location, density, required transport infrastructure etc.
- Facilitate a greater shift towards a more sustainable, healthy, and low carbon-built environment.
- Prioritise of active travel measures and considerations in the formulation of development proposals, including the consideration of suitable land for development.
- Promote and encourage a modal shift from the private car to walking and cycling, particularly for short to medium distance trips.
- Prioritise walking, cycling and public transport accessibility.
- Result in improvements in the built environment for the safety and security of those walking and cycling.
- Provide greater focus on compliance with the principles, approaches and standards in the Design Manual for Urban Roads and Streets (DMURS 2013-2019).
- Facilitate the implementation of the 10-Minute town concept.
- Potentially reduce traffic congestion at peak traffic times, improving road network reliability.

Alternative A would be more likely to result in more connected and accessible built environments, with associated positive benefits for the health and wellbeing of local communities. Alternative A would contribute to the transition of the joint urban area to a more low-carbon, climate resilient and healthy urban environment, with reduced car dependency and an increase in sustainable travel such as walking and cycling.

Not informing the JULAP with an Area Based Transport Assessment, which focuses on delivering travel solutions that support moving people from the private car to more sustainable modes, (**Area**

Based Transport Assessment Alternative B) would provide a less coordinated and less orderly provision of transport infrastructure and services, with delivery of projects, and associated benefit with respect to sustainable mobility and compact development, less likely. This approach would be less likely to improve the potential for meeting important objectives relating to emissions and energy use. Potentially adverse impacts arising from more coherently planned transport developments on environmental components, including ecology and water, could be mitigated at both JULAP and project level.

Area Based Transport Assessment Alternative B would:

- Increase the potential for land use planning and developments aspects of the JULAP to be considered in isolation of transport planning considerations.
- Mean that the assessment of existing traffic, transport, and movement conditions within the JULAP area would not be taken into account in the formulation of policies and objectives.
- Undermine ability to plan for efficient movement of people and services within the JULAP area.
- Limit the ability and scope to plan for required transport interventions in the JULAP area.
- Not inform site specific transport assessment for development proposals with an ABTA.
- Reduce support for modal shift from private car travel to active travel, including walking and cycling.

There would be greater potential for the existing pattern of car dependency to continue and increase under Alternative B. Alternative B would undermine policies and objectives supporting climate action and the transition to a more low-carbon urban environment. There would be potential for negative impacts on the health and wellbeing of local communities due to absence of measures for targeted active travel infrastructure.

Area Based Transport Assessment Alternatives are assessed against Strategic Environmental Objectives on Table 7.6.

Selected Area Based Transport Assessment Alternative for the Plan: Alternative A

Table 7.6 Assessment of Area Based Transport Assessment Alternatives against SEOs

Ecosystem Services Approach Alternatives (selected alternative indicated in bold)	Likely to Improve status of SEOs		Potential Conflict with status of SEOs - likely to be mitigated		Probable Conflict with status of SEOs - unlikely to be mitigated	No Likely interaction with status of SEOs
	+	-	-	0		
	to Greater degree	to Lesser degree	to Lesser degree	to Greater degree		
A. Inform the JULAP with an Area Based Transport Assessment	BFF PHH S W MA A C CH L		BFF PHH S W MA A C CH L			
B. Do not inform the JULAP with an Area Based Transport Assessment		BFF PHH S W MA A C CH L		BFF PHH S W MA A C CH L		

7.3.5 Assessment of Built Heritage Alternatives

A JULAP that adds detailed, local-level provisions to the existing planning framework relating to the conservation of built heritage (**Built Heritage Alternative A**) would further contribute the protection of existing heritage that is already contributed towards by the existing planning framework. By integrating heritage considerations into the Plan, Alternative A would be most likely to ensure that new development respects the historic grain of the built environment and archaeology that currently exists.

Built Heritage Alternative A would:

- Provide a focus for heritage-led regeneration in the existing built environment including conservation, restoration and reuse of built heritage assets.
- Support the implementation of a Heritage Initiative Plan for Carlow Town.
- Ensure that the conservation of built heritage, including architectural heritage (protected structures) and archaeology is a key consideration, in the formulation of development proposals, as appropriate.
- Promote and support the conservation of the special character and setting of designated Architectural Conservation Areas in the joint urban area.
- Promote the protection, retention, and public awareness of vernacular architecture in the joint urban area not listed as protected structures or located in ACAs.
- Promote and support the importance of climate-proofing built heritage assets and by reference to Department of Culture Heritage and the Gaeltacht 'Built and Archaeological Heritage, Climate Change Sectoral Adaptation Plan' (2019).

Increased opportunities would be presented for economic vitality, tourism, urban regeneration and placemaking under Alternative A, which would contribute to the implementation of "Project Carlow 2040 – A Vision for Regeneration". Under Alternative A, there would be potential to involve local communities in heritage projects, with the aim of improving the socio-economic profile of places, attracting new visitors, business, and residents. Alternative A would result in a reduced need for greenfield land consumption.

A JULAP that does not add detailed, local-level provisions to the existing planning framework relating to the conservation of built heritage, relying solely on existing provisions, including those included as part of the County Development Plans (**Built Heritage Alternative B**) would not further contribute the protection of existing heritage that is already contributed towards by the existing planning framework. By not integrating heritage considerations into the Plan, Alternative B would be least likely to ensure that new development respects the historic grain of the built environment and archaeology that currently exists.

Built Heritage Alternative B would:

- Not provide for sufficient consideration of the built heritage in the joint urban area at detailed design stage for development proposals.
- Increase the potential for loss of and/or negative impacts on the character and setting of historic built fabric in the joint urban area, including protected structures and vernacular architecture.
- Increase the potential to undermine the special character and setting of the designated ACAs in the joint urban area.
- Not support the implementation of a Heritage Initiative Plan for Carlow Town.

Under Alternative B, the role of built heritage in the joint urban area would not be capitalised on in terms of tourism potential, and the delivery of urban regeneration and placemaking projects.

Built Heritage Alternatives are assessed against Strategic Environmental Objectives on Table 7.7.

Selected Built Heritage Alternative for the Plan: Alternative A

Table 7.7 Assessment of Built Heritage Alternatives against SEOs

Built Heritage Alternatives (selected alternative indicated in bold)	Likely to Improve status of SEOs		Potential Conflict with status of SEOs - likely to be mitigated		Probable Conflict with status of SEOs - unlikely to be mitigated	No Likely interaction with status of SEOs
	+		-		-	0
	to Greater degree	to Lesser degree	to Lesser degree	to Greater degree		
A. A JULAP that adds detailed, local-level provisions	BFF PHH S W MA A C CH L		BFF PHH S W MA A C CH L			
B. A JULAP that does not add detailed, local-level provisions		BFF PHH S W MA A C CH L		BFF PHH S W MA A C CH L		

7.4 Reasons for Choosing the Selected Alternative in light of Other Reasonable Alternatives Considered

Alternatives were selected for the JULAP having regard to both:

1. The environmental effects which are identified by the SEA and are detailed above; and
2. Planning - including social and economic - effects that also were considered.

Section 8 Evaluation of Draft Plan Provisions

8.1 Introduction

This section provides an assessment of environmental effects using the information on the current state of the environment (provided in Section 4) and the Strategic Environmental Objectives (see Table 8.1) from implementation of the Plan.

The Draft Plan provisions (and, in Section 7, the alternatives) are evaluated using compatibility criteria (see Table 8.2 below) in order to determine how they would be likely to affect the status of the existing environment and the SEOs. The SEOs and the Plan provisions (and, in Section 7, the alternatives) are arrayed against each other in order to demonstrate which interactions would cause effects on specific components of the environment. Where the appraisal identifies an interaction with the status of an SEO the relevant SEO code is entered into the relevant column.

The interactions identified are reflective of likely significant environmental effects:

- Interactions that would be *likely to improve the status* of a particular SEO would be likely to contribute towards a significant positive effect on the environmental component to which the SEO relates, including in-combination with the existing statutory planning/decision-making and consent-granting framework.
- Interactions that would *potentially conflict with the status of an SEO and would be likely to be mitigated* would be likely to result in potential significant negative effects; however, these effects will be mitigated by measures which have been integrated into the Plan, or associated County Development Plans, and residual effects would not be significant (see Table 8.3 of this report).
- Interactions that would probably *conflict with the status of an SEO and would be unlikely to be mitigated* would be likely to result in a significant residual negative effect on the environmental component to which the SEO relates.

Effects considered include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

The degree of significance of effects occurring cannot be fully determined at this level of decision making due to the lack of exact detail available with regard to the type or scale of development that will be permitted under the Plan. However, a strategic assessment can be undertaken.

Table 8.1 Strategic Environmental Objectives⁵⁹

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives
Biodiversity, Flora and Fauna	BFF	No net contribution to biodiversity losses or deterioration	<ul style="list-style-type: none"> To preserve, protect, maintain and, where appropriate, enhance the terrestrial, aquatic and soil biodiversity, particularly EU designated sites and protected species Ensure no adverse effects on the integrity of any European site, with regard to its qualifying interests, associated conservation status, structure and function Safeguard national, regional and local designated sites and supporting features which function as stepping stones for migration, dispersal and genetic exchange of wild species Enhance biodiversity in line with the National Biodiversity Strategy and its targets To protect, maintain and conserve natural capital
Population and Human Health	PHH	Improve quality of life for all ages and abilities based on high-quality, serviced, well connected and sustainable residential, working, educational and recreational environments	<ul style="list-style-type: none"> Promote economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management Ensure that existing population and planned growth is matched with the required public infrastructure and the required services Safeguard citizens from environment-related pressures and risks to health and well-being
Soil (and Land)	S	Ensure the long-term sustainable management of land	<ul style="list-style-type: none"> Protect soils against pollution, and prevent degradation of the soil resource Promote the sustainable use of infill and brownfield sites over the use of greenfield Safeguard areas of prime agricultural land and designated geological sites
Water	W	Protection, improvement and sustainable management of the water resource	<ul style="list-style-type: none"> Ensure that the status of water bodies is protected, maintained and improved in line with the requirements of the Water Framework Directive Ensure water resources are sustainably managed to deliver proposed regional and County growth targets in the context of existing and projected water supply and wastewater capacity constraints ensuring the protection of receiving environments Avoid inappropriate zoning and development in areas at risk of flooding and areas that are vulnerable to current and future erosion Integrate sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals
Material Assets	MA	Sustainable and efficient use of natural resources	<ul style="list-style-type: none"> Optimise existing infrastructure and provide new infrastructure to match population distribution proposals - this includes transport infrastructure Ensure access to affordable, reliable, sustainable and modern energy for all which encourages a broad energy generation mix to ensure security of supply – wind, solar, hydro, biomass, energy from waste and traditional fossil fuels Promote the circular economy, reduce waste, and increase energy efficiencies Ensure there is adequate sewerage and drainage infrastructure in place to support new development Reduce the energy demand from the transport sector and support moves to electrification of road and rail transport modes Encourage the transition to a zero-carbon economy by facilitating the development of a grid infrastructure to support renewables and international connectivity. Reduce the average energy consumption per capita including promoting energy efficient buildings, retrofitting, smart- buildings, cities and grids

⁵⁹ See also Section 5

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives
Air	A	Support clean air policies that reduce the impact of air pollution on the environment and public health	<ul style="list-style-type: none"> To avoid, prevent or reduce harmful effects on human health and the environment as a whole resulting from emissions to air from all sectors with particular reference to emissions from transport, residential heating, industry and agriculture Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency Promote continuing improvement in air quality Reduction of emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter which are responsible for acidification, eutrophication and ground-level ozone pollution Meet Air Quality Directive standards for the protection of human health — Air Quality Directive Significantly decrease noise pollution and move closer to WHO recommended levels
Climatic Factors⁶⁰	C	Achieving transition to a competitive, low carbon, climate-resilient economy that is cognisant of environmental impacts	<ul style="list-style-type: none"> To minimise emissions of greenhouse gases Integrate sustainable design solutions into infrastructure (e.g. energy efficient buildings; green infrastructure) Contribute towards the reduction of greenhouse gas emissions in line with national targets Promote development resilient to the effects of climate change Promote the use of renewable energy, energy efficient development and increased use of public transport
Cultural Heritage	CH	Safeguard cultural heritage features and their settings through responsible design and positioning of development	Protect places, features, buildings and landscapes of cultural, archaeological or architectural heritage
Landscape	L	Protect and enhance the landscape character	To implement the Plan's framework for identification, assessment, protection, management and planning of landscapes having regard to the European Landscape Convention

Table 8.2 Criteria for appraising the effect of the Plan provisions on SEOs

Likely to Improve status of SEOs +	Potential Conflict with status of SEOs - likely to be mitigated -	Probable Conflict with status of SEOs - unlikely to be mitigated -	No Likely interaction with status of SEOs 0
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⁶⁰ Please also refer to relevant legislation and requirements under Section 4.10, Section 8.5 and Appendix I. Targets under the national Climate Action Plan are reviewed and updated periodically.

8.2 Cumulative Effects⁶¹

Cumulative effects are one of the types of effects which have been considered by the assessment of the alternatives. Cumulative effects can be described as the addition of many small impacts to create one larger, more significant, impact.

There are two types of potential cumulative effects that have been considered, namely:

- Potential *intra-Plan* cumulative effects - these arise from the interactions between different types of potential environmental effects resulting from a plan, programme, etc. Where there are elevated levels of environmental sensitivities (such as those identified under Section 4), future development could result in environmental conflicts and lead to a deterioration in environmental integrity. The interrelationships between environmental components that help determine these potential effects are identified on Table 8.4 e.g. interrelationships between: human health and water quality; human health and air quality; human health and flood risk; and ecology and water quality.
- Potential *inter-Plan* cumulative effects - these arise when the effects of the implementation of one plan occur in combination with those of other plans, programmes, developments, etc.

Effects that may arise as a result of implementing the Plan have been mitigated to the extent that the only residual adverse effects likely to occur as a result of implementation of the Plan are those which are identified under Table 8.3.

Other policies, plans and programmes that have been considered by the assessment of effects include those which are detailed under Section 2.5 (and associated Appendix I “Relationship with Legislation, Plans and Programmes”), Section 4 and Section 5. Plans and programmes from various sectors will interact with the Plan, including those relating to land use planning. These plans and programmes are subject to their own environmental assessment requirements as relevant. Examples include:

- Land use policy, plans and programmes (e.g. the National Planning Framework, the Eastern and Midland Regional Spatial and Economic Strategy, the Southern Regional Spatial and Economic Strategy, the Carlow and Laois County Development Plans, adjoining County Development Plans and Local Area Plans)
- Carlow and Laois Local Economic and Community Plan and the Local Economic and Community Plans of adjoining counties;
- Energy policy, plans and programmes (e.g. Grid25 and associated Implementation Programme, Ireland’s National Renewable Energy Action Plan 2010, Strategy for Renewable Energy 2012-2020, National Energy and Climate Plan 2021-2030 and the Renewable Electricity Policy and Development Framework);
- Climate related policy, plans and programmes (e.g. the National Climate Policy Position and Climate Action 2014, Climate Action and Low Carbon Development Act 2015, as amended, Climate Action Plan 2023, National Mitigation Plan 2017, the National Adaptation Framework 2018 and the Carlow and Laois Climate Change Adaptation Strategies 2019-2024);
- Water services, waste management, transport and energy infrastructure plans (e.g. Uisce Éireann’s Water Services Strategic Plan and associated Capital Investment Plan, Eastern-Midlands and Southern Regional Waste Management Plans and Transportation Policies and Strategies); and
- Environmental protection and management plans (e.g. River Basin Management Plan and Flood Risk Management Plans).

Potential cumulative/in combination effects include:

- Contributions towards reductions in travel related greenhouse gas and other emissions to air, reductions in consumption from non-renewables and associated achievement of legally

⁶¹ The EPA’s guidance note ‘Good Practice Guidance note on cumulative effects assessment in SEA’ has been considered in the assessment.

binding targets (in combination with plans and programmes from all sectors, including energy, transport and land use planning) as a result of facilitating:

- Sustainable compact growth;
 - Sustainable mobility, including walking, cycling and public transport;
 - Drainage, flood risk management and resilience;
 - Renewable energy; and
 - Sustainable design, energy efficiency and green and blue infrastructure.
- Contributions towards travel related greenhouse gas and other emissions to air (in combination with plans and programmes from all sectors, including transport and land use planning) as a result of facilitating development which must be accompanied by road capacity;
 - Facilitation of new development that is accompanied by appropriate levels of water services thereby contributing towards environmental protection;
 - Need for and use of water and waste water treatment capacity arising from new developments and associated potential adverse effects;
 - Potential cumulative effects upon surface and ground water status as a result of housing, employment, agricultural and forestry – loadings and abstractions;
 - Potential cumulative effects (habitat damage, enhancing ecological connectivity, contributing towards sustainable mobility) arising from linear developments, such as those relating to Green Infrastructure, including beyond the Plan boundary;
 - Potential cumulative effects on flood risk by, for example, development of greenfield lands or obstruction of flood paths; and
 - In combination with plans and programmes from all sectors potential adverse effects on all environmental components arising from all development in greenfield and brownfield areas (e.g. infrastructural, residential, economic, agricultural etc.). The type of these effects are consistent with those described on Table 8.3. These plans and programmes are required to comply with environmental legislation and undergo SEA and AA as relevant comply with environmental legislation while projects are subject to EIA and AA, as relevant.

These effects would have the potential, if unmitigated, if they occurred, to result in changes in the environment within and beyond the Plan area.

A variety of the issues covered by the Plan provisions are regional and county issues which are considered: at Regional Assembly level, in the Eastern and Midland RSES and Southern RSES and by planning authorities across the Region; and at County level, including through the Carlow and Laois County Development Plans. The solutions to these issues are often regional solutions which are subject their own consenting procedures. Works arising outside of the Plan area as a result of providing for new development within the Plan area, including works arising as a result of the cumulative provision of development in the wider County and region, would potentially conflict with a number of environmental components, across the wider County and region and beyond, including: ecology, soil function, the status of water bodies and the landscape. Some of these conflicts would be mitigated by measures which will be integrated into the Plan while some will be mitigated by measures arising out of separate consent procedures.

8.3 Overall Evaluation

Carlow and Laois County Councils have integrated various recommendations arising from the SEA process into the Plan (see Section 9). Table 8.3 provides a detailed overall evaluation of the environmental effects arising from the Plan. The effects encompass all in-combination/cumulative effects arising from implementation of the Plan. The potentially significant adverse environmental effects (if unmitigated) arising from implementation of the Plan are detailed as are residual effects, taking into account mitigation integrated into both the Draft Plan and the Carlow and Laois County Development Plans – see Section 9.

Environmental impacts which occur will be determined by the nature and extent of multiple or individual projects and site-specific environmental factors. Strategic Environmental Objective (SEO) codes are taken from Table 8.1.

Table 8.3 Overall Evaluation – Effects arising from the Plan

Environmental Component	Environmental Effects, in combination with the wider planning framework			SEO Codes
	Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP, the Eastern and Midland RSES and Southern RSES, the Carlow and Laois County Development Plans and adjacent Development Plans and lower-tier land use plans.			
	Significant Positive Effect, likely to occur	Potentially Significant Adverse Environmental Effects, if unmitigated	Likely Residual Adverse Non-Significant Effects	
Biodiversity and Flora and Fauna	<ul style="list-style-type: none"> Contribution towards protection of ecology (including designated sites, ecological connectivity, habitats) by facilitating development of lands (including those within and adjacent to the town's core areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-served lands elsewhere in the Plan area and beyond. Contribution towards the maintenance of existing green infrastructure and associated ecosystem services, listed species, ecological connectivity and non-designated habitats. Contribution towards protection and/or maintenance of biodiversity and flora and fauna by contributing towards the protection of natural capital including the environmental vectors of air, water and soil. Biodiversity and flora and fauna includes biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species (including birds and bats), listed/protected species, ecological connectivity and non-designated habitats (including terrestrial and aquatic habitats), and disturbance to biodiversity and flora and fauna – including terrestrial and aquatic biodiversity and flora and fauna. Sustains existing sustainable rural management practices – and the communities who support them – to ensure the continuation of long-established managed landscapes and the flora and fauna that they contain. 	<p>Arising from both construction and operation of development and associated infrastructure:</p> <ul style="list-style-type: none"> Loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna; Habitat loss, fragmentation and deterioration, including patch size and edge effects; and Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species such as birds (e.g. swifts) and bats. 	<ul style="list-style-type: none"> Loss of an extent of non-protected habitats and species arising from the replacement of semi-natural land covers with artificial surfaces. Losses or damage to ecology (these would be in compliance with relevant legislation). 	BFF

Environmental Component	Environmental Effects, in combination with the wider planning framework			SEO Codes
	Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP, the Eastern and Midland RSES and Southern RSES, the Carlow and Laois County Development Plans and adjacent Development Plans and lower-tier land use plans.			
	Significant Positive Effect, likely to occur	Potentially Significant Adverse Environmental Effects, if unmitigated	Likely Residual Adverse Non-Significant Effects	
Population and Human Health	<ul style="list-style-type: none"> • Promotion of economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management. • Contribution towards appropriate provision of infrastructure and services to existing population and planned growth by facilitating compact development of lands (including those within and adjacent to the town's core areas) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the Plan area and beyond • Contribution towards the protection of human health by facilitating development of lands (including those within and adjacent to the town's core areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the Plan area and beyond. • Contributes towards protection of human health as a result of contributing towards the protection of natural capital including environmental vectors, including air and water. 	<ul style="list-style-type: none"> • Potential adverse effects arising from flood events. • Potential interactions if effects arising from environmental vectors. 	<ul style="list-style-type: none"> • Potential interactions with residual effects on environmental vectors – please refer to residual adverse effects under “Soil”, “Water” and “Air and Climatic Factors” below. 	PHH
Soil	<ul style="list-style-type: none"> • Contribution towards the protection of soils (including those used for agriculture) and designated sites of geological heritage by facilitating development of lands (including those within and adjacent to the town's core areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the Plan area and beyond. • Contribution towards the protection of the environment from contamination the highest standards of remediation. 	<ul style="list-style-type: none"> • Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of development on contaminated lands. • Potential for riverbank erosion. 	<ul style="list-style-type: none"> • Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces. • Riverbank erosion will continue to occur naturally over time and is likely to be enhanced by climate change. 	S

Environmental Component	Environmental Effects, in combination with the wider planning framework			SEO Codes
	Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP, the Eastern and Midland RSES and Southern RSES, the Carlow and Laois County Development Plans and adjacent Development Plans and lower-tier land use plans.			
	Significant Positive Effect, likely to occur	Potentially Significant Adverse Environmental Effects, if unmitigated	Likely Residual Adverse Non-Significant Effects	
Water	<ul style="list-style-type: none"> Contribution towards the protection of water by facilitating development of lands (including those within and adjacent to the town's core areas) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the Plan area and beyond. Contributions towards the protection of water resources including the status of surface and groundwaters and water-based designations. Contribution towards flood risk management and appropriate drainage. 	<ul style="list-style-type: none"> Potential adverse effects upon the status of water bodies and entries to the WFD Register of Protected Areas (ecological and human value), arising from changes in quality, flow and/or morphology. Increase in flood risk and associated effects associated with flood events. 	<ul style="list-style-type: none"> Any increased loadings as a result of development to comply with the River Basin Management Plan. Flood related risks remain due to uncertainty with regard to extreme weather events – however such risks will be mitigated by measures that have been integrated into the Plan. 	W
Material Assets	<ul style="list-style-type: none"> Contribution towards appropriate provision of infrastructure and services to existing population and planned growth by facilitating compact development of lands (including those within and adjacent to the town's core areas) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-serviced lands elsewhere in the Plan area and beyond. Contribution towards compliance with national and regional water services and waste management policies. Contribution towards increase in renewable energy use by facilitating renewable energy and electricity transmission infrastructure developments. Contribution towards limits in increases in energy demand from the transport sector by facilitating sustainable compact growth. Contribution towards reductions in average energy consumption per capita including promoting sustainable compact growth, sustainable mobility, sustainable design and energy efficiency. 	<ul style="list-style-type: none"> Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts). Failure to adequately treat surface water run-off that is discharged to water bodies (water services infrastructure and capacity ensures the mitigation of potential conflicts). Failure to comply with drinking water regulations and serve new development with adequate drinking water (water services infrastructure and capacity ensures the mitigation of potential conflicts). Increases in waste levels. Potential impacts upon public assets and infrastructure. Interactions between agricultural waste and soil, water, biodiversity and human health – including as a result of emissions of ammonia from agricultural activities (e.g. manure handling, storage and spreading) and the production of secondary inorganic particulate matter. 	<ul style="list-style-type: none"> Exceedance of capacity in critical infrastructure risks remain, including due to uncertainty with regard to climate – however, such risks will be mitigated by: measures, including those requiring the timely provision of critical infrastructure, and compliance with the Water Framework Directive and associated River Basin Management Plan. Residual wastes to be disposed of in line with higher-level waste management policies. Any impacts upon public assets and infrastructure to comply with statutory planning/consent-granting framework. 	MA

Environmental Component	Environmental Effects, in combination with the wider planning framework Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP, the Eastern and Midland RSES and Southern RSES, the Carlow and Laois County Development Plans and adjacent Development Plans and lower-tier land use plans.			SEO Codes
	Significant Positive Effect, likely to occur	Potentially Significant Adverse Environmental Effects, if unmitigated	Likely Residual Adverse Non-Significant Effects	
Air and Climatic Factors	<ul style="list-style-type: none"> Contribution towards climate mitigation and adaptation by facilitating compact development of lands (including those within and adjacent to the town's core areas) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-served lands elsewhere in the Plan area and beyond. In combination with other plans, programmes etc., contribution towards the objectives of the wide policy framework relating to climate mitigation and adaptation, and associated contribution towards maintaining and improving air quality and managing noise levels, including through measures relating to: <ul style="list-style-type: none"> Sustainable compact growth; Sustainable mobility, including walking, cycling and public transport; Drainage, flood risk management and resilience; Sectors including agriculture, residential heating and infrastructure; Sustainable design, energy efficiency and green infrastructure. 	<ul style="list-style-type: none"> Potential conflict between development under the Plan and aiming to reduce carbon emissions in line with local, national and European environmental objectives. Potential conflicts between transport emissions, including those from cars, and air quality⁶². Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors⁶³. Potential conflicts with climate adaptation measures including those relating to flood risk management. 	<ul style="list-style-type: none"> An extent of travel related greenhouse gas and other emissions to air. This has been mitigated by provisions which have been integrated into the Plan, including those relating to sustainable compact growth and sustainable mobility. Interactions between noise emissions and sensitive receptors. Various provisions have been integrated into the Plan to ensure that noise levels at sensitive receptors will be minimised. 	AC
Cultural Heritage	<ul style="list-style-type: none"> Contributes towards protection of cultural heritage elsewhere by facilitating development within the Plan area. Contributes towards protection of cultural heritage within the Plan area by facilitating brownfield development and regeneration. 	<ul style="list-style-type: none"> Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities. 	<ul style="list-style-type: none"> Potential effects on known architectural and archaeological heritage and unknown archaeology however, these will occur in compliance with legislation. 	CH
Landscape	<ul style="list-style-type: none"> Contributes towards protection of wider landscape and landscape designations by facilitating development within the Plan area. 	<ul style="list-style-type: none"> Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape. 	<ul style="list-style-type: none"> Landscapes will change overtime as a result of natural changes in vegetation cover combined with new developments that will occur in compliance with the Plan's landscape protection measures. 	L

⁶² Although interventions would be likely to result in an overall reduction in traffic flows and associated interactions with air, noise and human health, there would be potential for displacement of traffic to lead to localised increases in traffic flows and associated localised potential impacts in terms of increased population exposure to air pollutants and/or elevated noise levels, both within the Plan area and beyond.

⁶³ Although interventions would be likely to result in an overall reduction in traffic flows and associated interactions with air, noise and human health, there would be potential for displacement of traffic to lead to localised increases in traffic flows and associated localised potential impacts in terms of increased population exposure to air pollutants and/or elevated noise levels, both within the Plan area and beyond.

8.4 Appropriate Assessment and Strategic Flood Risk Assessment

Stage 2 Appropriate Assessment (AA) is being undertaken alongside the preparation of the Plan. The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC). The AA assesses the effects of the Plan on European Sites designated for certain habitats and species. The emerging conclusion of the AA is that the Draft Plan will not affect the integrity of the Natura 2000 network⁶⁴.

A Strategic Flood Risk Assessment (SFRA) document accompanies this SEA Environmental Report and the Draft Plan. Requirements in relation to SFRA are provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (Department of Environment and Office of Public Works, 2009) and associated Department of the Environment, Community and Local Government Circular PL2/2014. Flood risk management and drainage provisions are already in force through the County Development Plans and related provisions have been integrated into the JULAP. In addition, land use zoning contained within the Draft Plan has been informed by the SFRA process and associated delineation of flood risk zones.

Various policies and objectives have been integrated into the Draft Plan through the SEA, SFRA and AA processes.

8.5 Interactions with Climate Mitigation and Adaptation

The JULAP will contribute towards climate action in combination with:

- The Climate Action Plan that identifies various climate mitigation and/or adaptation actions.
- The National Planning Framework, which has identified National Strategic Outcome Objectives 8 "Build Climate Resilience" and 9 "Support the transition to low carbon and clean energy" under National Strategic Outcome 8 "Transition to a Low Carbon and Climate Resilient Society".
- The Southern and Eastern and Midland Regional Spatial and Economic Strategies that have include various provisions relating to climate action; and
- The Carlow (including at Chapter 7 "Climate Action and Energy") and Laois (including at Chapter 3 "Climate Action and Energy") County Development Plans.

In relation to taking into account climate action, the JULAP is consistent with the aims and objectives set out in the Carlow and Laois County Development Plans and the climate mitigation and adaptation provisions included in the JULAP should be read in conjunction with these County Development Plan provisions. Climate change and climate action considerations are therefore at the forefront of the preparation of the JULAP. This includes support for and requirements in relation to compact urban growth, town regeneration, active travel, reduced car dependency, a decarbonisation zone, and the protection of natural and built heritage assets. Further details in relation to the aforesaid can be found in Chapter 11 "Climate Action" of the JULAP. Issues addressed include those relating to:

- Integrated Land Use Planning & Sustainable Travel;
- Urban Regeneration & Compact Growth;
- Renewable Energy;
- Energy Efficiency and Conservation;
- Nature-Based Solutions and Green Infrastructure;
- Flood Risk Management; and
- Sustainable Urban Drainage Systems (SuDS).

⁶⁴ Except as provided for in Article 6(4) of the Habitats Directive, viz. There must be:
 (a) no alternative solution available;
 (b) imperative reasons of overriding public interest for the plan/programme/project to proceed; and
 (c) adequate compensatory measures in place.

8.6 Interrelationship between Environmental Components

The SEA Directive requires the Environmental Report to include information on the likely significant effects on the environment, including on issues such as biodiversity, fauna, flora, population, human health, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.

Likely significant effects on environmental components which are identified include those which are interrelated; implementation of the Plan will not affect the interrelationships between these components. The presence of significant interrelationships between environmental components is identified on Table 8.4.

Table 8.4 Presence of Interrelationships between Environmental Components

Component	Biodiversity, flora and fauna	Population and human health	Soil	Water	Air and Climatic factors	Material assets	Cultural heritage	Landscape
Biodiversity, flora and fauna		Yes	Yes	Yes	Yes	Yes	No	Yes
Population and Human Health			Yes	Yes	Yes	Yes	No	No
Soil				Yes	No	Yes	No	No
Water					No	Yes	No	No
Air and Climatic Factors						Yes	No	No
Material Assets							Yes	Yes
Cultural Heritage								Yes
Landscape								

8.7 Detailed Evaluation

For an explanation of SEO codes e.g. **BFF, PHH, S, W**, etc. refer to Table 8.1 on page 76.

The following applies to each of the sub-sections 8.7.1 to 8.7.11 below:

The Plan is situated in a hierarchy of documents setting out public policy setting out public policy for, among other things, land use planning, infrastructure, sustainable development, tourism, environmental protection and environmental management, such as the National Planning Framework, the National Development Plan, the National Mitigation Plan, the National Adaptation Framework, the Climate Action Plan, the Regional Spatial and Economic Strategy for the Eastern and Midland Region, the Regional Spatial and Economic Strategy for the Southern Region and the Carlow and Laois County Development Plans (for additional detail please refer to Section 2.5 “*Relationship with other relevant Plans and Programmes*” in this report).

These other existing policies, plans etc. have been subject to their own environmental assessment processes, as relevant, and already provide for various measures that have been compiled into the Plan. The Plan aligns with these documents and will be incorporated into the review and preparation of these documents.

Lower tier plans and projects must be consistent and comply with the provisions of the Plan and of these other policies, plans etc. and will be subject to their own project level EIA and AA requirements as relevant. An assessment of cumulative effects is provided at Section 8.2 of this report.

8.7.1 Chapter 2: Carlow – Graiguecullen Strategic Planning and Vision

	Likely to Improve status of SEOs	Potential Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be mitigated	No Likely interaction with status of SEOs
	+	-	-	0
<p>This chapter sets out the Vision and Strategic Objectives for the Plan. The assessment of this chapter against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:</p> <ul style="list-style-type: none"> • Environmental effects detailed under subsections 8.2 to 8.6 of this report; and • Assessments of the selected alternatives for the Plan provided at Section 7 of this report. <p>Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the town and focus on directing compact, sustainable development within the existing envelope of the Plan area. Development of these generally more robust, well-serviced and well-connected areas of the town will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the town to become a more desirable place to live – so that it maintains populations and services. Compatible sustainable development in the town’s sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.</p> <p>The provisions identified in this Chapter would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities and sustainable development of the Plan area, in combination with other Plan provisions and other plans, programmes, strategies, etc. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.</p> <p>The SEA process that has been undertaken alongside the preparation of the Draft Plan has brought about various changes to the emerging Plan through an</p>	BFF PHH S W MA A C CH L	BFF PHH S W MA A C CH L		

<p>iterative process. Some of these measures are reproduced under Section 9 “Mitigation Measures” of this report. By integrating provisions for environmental protection and management into the Plan, Carlow and Laois County Councils are helping to ensure that:</p> <ul style="list-style-type: none"> • The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and • The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised. 				
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8.7.2 Chapter 3: Core Strategy and Housing

	Likely to Improve status of SEOs	Potential Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be mitigated	No Likely interaction with status of SEOs
<p>This chapter sets out the provisions of the Plan relating to its core strategy and housing. The assessment of these provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:</p> <ul style="list-style-type: none"> • Environmental effects detailed under subsections 8.2 to 8.6 of this report; and • Assessments of the selected alternatives for the Plan provided at Section 7 of this report. <p>Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the town and focus on directing compact, sustainable development within the existing envelope of the Plan area. Development of these generally more robust, well-serviced and well-connected areas of the town will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the town to become a more desirable place to live – so that it maintains populations and services. Compatible sustainable development in the town’s sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.</p> <p>Plan provisions relating to the core strategy and housing would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities and sustainable development of the Plan area, in combination with other Plan provisions and other plans, programmes, strategies, etc. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.</p> <p>The provisions of this chapter aim to direct and facilitate appropriate and sustainable levels of growth and development throughout Carlow-Graigucullen over the period 2024-2030, with a focus on compact growth, urban regeneration, sustainable travel, and healthy placemaking, in accordance with the Core Strategies contained in the Carlow County Development Plan and the Laois County Development Plan.</p> <p>Delivering compact growth is an overriding objective of the NPF, and of the RSEs for the Southern Region and the Eastern and Midlands Region. As required under Objective 3(c) of the NPF at least 30% of all new housing units must be delivered within the existing urban footprint of Carlow Town i.e., former Town Council area. In satisfying this target for compact growth, an analysis of appropriate brownfield and infill sites with potential capacity to deliver new homes was carried out for the town to inform the completion and adoption of the Core Strategy in the Carlow County Development Plan 2022-2028. The Core Strategy estimates that 100% of all new housing units in the former town council area can be accommodated on brownfield/infill lands. In underpinning this support for compact growth in the Core Strategy, the policies, objectives, and related provisions of the Plan support:</p> <ul style="list-style-type: none"> • Active Land Management: Including the key role of the Town Centre First Policy, Town Regeneration Officers, Croí Cónaithe (Towns), Vacant Homes Officer, and the Residential Zoned Land Tax. • Project Carlow 2040 – A Vision for Regeneration: Including vision, guiding principles, regeneration action plan, and six intervention areas. • Settlement Consolidation Sites and Regeneration Sites: Including their potential to deliver wider regeneration benefits to the town centre and 	+	-	-	0

<p>significant housing provision.</p> <ul style="list-style-type: none"> Densities/Increased Heights: Including potential to deliver indicative densities of >35 units per hectare and increased heights at appropriate locations in the Town Centre subject to compliance with proper planning and environmental considerations. <p>The SEA process that has been undertaken alongside the preparation of the Draft Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 “Mitigation Measures” of this report. By integrating provisions for environmental protection and management into the Plan, Carlow and Laois County Councils are helping to ensure that:</p> <ul style="list-style-type: none"> The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised. 				
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8.7.3 Chapter 4: Economic Development, Retail and Tourism

	Likely to Improve status of SEOs	Potential Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be mitigated	No Likely interaction with status of SEOs
<p>This chapter sets out the provisions of the Plan relating to economic development, retail and tourism. The assessment of these provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:</p> <ul style="list-style-type: none"> Environmental effects detailed under subsections 8.2 to 8.6 of this report; and Assessments of the selected alternatives for the Plan provided at Section 7 of this report. <p>Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the town and focus on directing compact, sustainable development within the existing envelope of the Plan area. Development of these generally more robust, well-serviced and well-connected areas of the town will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the town to become a more desirable place to live – so that it maintains populations and services. Compatible sustainable development in the town’s sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.</p> <p>Plan provisions relating to economic development, retail and tourism would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities and sustainable development of the Plan area, in combination with other Plan provisions and other plans, programmes, strategies, etc. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.</p> <p>The provisions of this chapter aim to support the sustainable economic development of Carlow-Graiguecullen, by leveraging its strategic location, accessibility, and Key Town designation to build a competitive, innovative, and productive urban economy, and by protecting and enhancing its tourism product and its role as a regional centre for retailing.</p> <p>The Infrastructural Assessment accompanying the Plan has informed the zoning of lands for economic development. The IA ensures that all land zoned for development can be serviced within the lifetime of the Plan. While employment related uses can be facilitated on a number of land use zonings, there will be a specific focus in the Plan on lands zoned Town Centre, Enterprise and Employment, and Business and Innovation. Notwithstanding the Town Centre First approach, the Plan also acknowledges that there are many economic lands uses that may not be appropriate in a town centre location for reasons relating to their size, nature of the activity or access / road network requirements. Therefore, the land use zonings have also been carefully considered to ensure</p>	<p>+</p> <p>BFF PHH S W MA A C CH L</p>	<p>-</p> <p>BFF PHH S W MA A C CH L</p>	<p>-</p>	<p>0</p>

<p>that they are compatible with the wider area and take cognisance of ensuring the delivery of consolidated and compact growth. The Plan identifies strategic employment lands and requires that the layout and design of development proposals on these strategic land banks is of a high standard and quality.</p> <p>The Retail Strategy for County Carlow 2022-2028 identifies six opportunity sites within the designated Core Retail Area. The redevelopment of these sites not only provides the opportunity to consolidate and strengthen the Core Retail Area and wider Town Centre, but also present opportunities for enhanced permeability and public realm improvements.</p> <p>This Plan seeks to support existing tourism assets such as the River Barrow and Carlow Castle, seeking to improve these and others through the enhancement of the public realm. The Plan supports tourism initiatives including Fáilte Ireland's 'Ireland's Ancient East' tourism marketing platform, which promotes Carlow-Graiguecullen as a visitor destination and designated Carlow Town as a designated Ireland's Ancient East 'Destination Town',</p> <p>The SEA process that has been undertaken alongside the preparation of the Draft Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 "Mitigation Measures" of this report. By integrating provisions for environmental protection and management into the Plan, Carlow and Laois County Councils are helping to ensure that:</p> <ul style="list-style-type: none"> • The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and • The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised. 				
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8.7.4 Chapter 5: Urban Design, Town Centre, and Regeneration

	Likely to Improve status of SEOs +	Potential Conflict with status of SEOs - likely to be mitigated -	Probable Conflict with status of SEOs - unlikely to be mitigated -	No Likely interaction with status of SEOs 0
<p>This chapter sets out the provisions of the Plan relating to urban design, the town centre and regeneration. The assessment of these provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:</p> <ul style="list-style-type: none"> • Environmental effects detailed under subsections 8.2 to 8.6 of this report; and • Assessments of the selected alternatives for the Plan provided at Section 7 of this report. <p>Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the town and focus on directing compact, sustainable development within the existing envelope of the Plan area. Development of these generally more robust, well-serviced and well-connected areas of the town will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the town to become a more desirable place to live – so that it maintains populations and services. Compatible sustainable development in the town's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.</p> <p>Plan provisions relating to urban design, the town centre and regeneration would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities and sustainable development of the Plan area, in combination with other Plan provisions and other plans, programmes, strategies, etc. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.</p> <p>This chapter aims to guide the long-term development of Carlow-Graiguecullen in a manner that protects and enhances the unique attributes of the joint urban area, through the implementation of best practice urban design, placemaking and urban regeneration, which improves the health and wellbeing of its</p>	BFF PHH S W MA A C CH L	BFF PHH S W MA A C CH L		

<p>residents, supports compact growth, vibrant and inclusive urban environments, local businesses and tourism, and town centre living. Carlow and Laois County Councils have in their respective County Development Plans, prepared a suite of urban design policies, objectives, and related provisions to support and promote good urban design and quality placemaking, which should be read in conjunction with this chapter of the Plan. The Plan places a particular emphasis on encouraging design-led and responsive approaches to urban regeneration in Carlow-Graiguecullen and sets out eleven key urban design principles.</p> <p>Carlow County Council has already developed a Town Centre First Plan in the form of Project Carlow 2040 – A Vision for Regeneration, a regeneration strategy identifies challenges, actions, and integrated responses across a number of core themes and intervention areas. Project Carlow 2040 seeks to maximise the impact of investment from funding streams available for town regeneration, including the Urban Regeneration and Development Fund. Specific funding has been received under Call 3 of the Urban Regeneration and Development Fund which is designed to address long term vacancy and dereliction, as well as the acceleration of residential accommodation in the town.</p> <p>Four settlement consolidation sites and three regeneration sites have been identified in Carlow Town. These settlement consolidation and regeneration sites are located within the existing built-up area and in most cases are in or adjoining the town centre. The sites have been identified on the basis of their potential to generate wider regeneration benefits to the town and to deliver significant housing provision or commercial, employment or mixed-use developments which contribute to consolidated urban growth. A number of these sites overlap with the Intervention Areas the subject of Project Carlow 2040 – A Vision for Regeneration.</p> <p>The SEA process that has been undertaken alongside the preparation of the Draft Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 “Mitigation Measures” of this report. By integrating provisions for environmental protection and management into the Plan, Carlow and Laois County Councils are helping to ensure that:</p> <ul style="list-style-type: none"> • The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and • The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised. 				
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8.7.5 Chapter 6: Sustainable Travel and Transportation

	Likely to Improve status of SEOs	Potential Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be mitigated	No Likely interaction with status of SEOs
<p>This chapter sets out the provisions of the Plan relating to sustainable travel and transportation. The assessment of these provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:</p> <ul style="list-style-type: none"> • Environmental effects detailed under subsections 8.2 to 8.6 of this report; and • Assessments of the selected alternatives for the Plan provided at Section 7 of this report. <p>Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the town and focus on directing compact, sustainable development within the existing envelope of the Plan area. Development of these generally more robust, well-serviced and well-connected areas of the town will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the town to become a more desirable place to live – so that it maintains populations and services. Compatible sustainable development in the town's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.</p>	+	-	-	0
	BFF PHH S W MA A C CH L	BFF PHH S W MA A C CH L		

<p>Plan provisions relating to sustainable travel and transportation would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities and sustainable development of the Plan area, in combination with other Plan provisions and other plans, programmes, strategies, etc. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.</p> <p>This chapter aims to promote and develop a sustainable, integrated and universally accessible transport system for Carlow-Graiguecullen that prioritises walking, cycling, and public transport, in addition to the provision of an appropriate level of road infrastructure, road capacity and traffic management, and which supports future development and thereby facilitating the transition to a lower carbon-based climate resilient and healthy urban environment.</p> <p>Sustainable transport and travel related provisions, including those arising from the Area Based Transport Assessment that accompanies the Plan, would contribute towards the planning framework for the future development of sustainable transport and movement, in combination with the implementation of other provisions from the Plan and other plans and programmes. Many of these provisions would primarily contribute towards maximising sustainable mobility and associated interactions with emissions to air (including noise and greenhouse gas emissions), energy usage, air quality and human health. The development of new, and enhancement of existing, walking and cycling routes has the potential to contribute towards sustainable mobility and a better management of movements in sensitive areas, thereby benefitting various environmental components, including habitats, at certain locations. The development of sustainable transport and travel related infrastructure, however, presents a variety of potentially adverse environmental effects that would, if unmitigated, have the potential to arise from both the construction and operation of such developments and/or their ancillary infrastructure. These types of infrastructure are often constructed in ecologically and visually sensitive areas adjacent to the banks of rivers and streams. The facilitation of journeys by car, in particular, would give rise to emissions to air. Section 5.9 “Infrastructural Improvement Process” of the Carlow County Development Plan and Objective TRANS 15 of the Laois County Development Plan would need to be complied with by new projects as relevant.</p> <p>The SEA process that has been undertaken alongside the preparation of the Draft Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 “Mitigation Measures” of this report. By integrating provisions for environmental protection and management into the Plan, Carlow and Laois County Councils are helping to ensure that:</p> <ul style="list-style-type: none"> • The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and • The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised. 				
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8.7.6 Chapter 7: Infrastructure and Environmental Services

	Likely to Improve status of SEOs	Potential Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be mitigated	No Likely interaction with status of SEOs
<p>This chapter sets out the provisions of the Plan relating to infrastructure and environmental services. The assessment of these provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:</p> <ul style="list-style-type: none"> • Environmental effects detailed under subsections 8.2 to 8.6 of this report; and • Assessments of the selected alternatives for the Plan provided at Section 7 of this report. <p>Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the town and focus on directing compact, sustainable development within the existing envelope of the Plan area. Development of these generally more robust, well-serviced and well-connected areas of the town will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the town to become a more desirable place to live – so that it maintains populations</p>	+	-	-	0

<p>and services. Compatible sustainable development in the town's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.</p> <p>Plan provisions relating to infrastructure and environmental services would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities and sustainable development of the Plan area, in combination with other Plan provisions and other plans, programmes, strategies, etc. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.</p> <p>This chapter aims to facilitate future growth in Carlow-Graiguecullen in line with the capacity and availability of supporting infrastructure and environmental services and to ensure such growth occurs in accordance with the principles of proper planning and sustainable development.</p> <p>Provisions relating to water supply, wastewater, surface water, groundwater and sustainable urban drainage systems would, by protecting water resources, providing safe drinking water and appropriately treating waste water, contribute towards the protection of various environmental components including: human health, biodiversity and flora and fauna, the status of waters, flood risk management and soil. There would be potential for significant adverse environmental effects upon various environmental components to arise during construction of water services infrastructure. Such potential significant adverse effects could also arise during operation: the protection of human health, biodiversity and flora and fauna and the status of waters, could all be conflicted with by outflows and abstractions. Waste Management provisions incorporate circular economy principles that are supported in the RSEs.</p> <p>Flood risk management provisions would contribute towards the protection and management of human health, biodiversity, flora and fauna, cultural heritage, water status and existing infrastructure and services. Flood risk management infrastructure (if required) has the potential to result in significant adverse environmental effects during construction and operation on most environmental components. These types of infrastructure are often constructed in ecologically and visually sensitive areas and adjacent to the banks of rivers and streams. Sustainable Urban Drainage Systems can contribute towards the maintenance and improvement in the status of water bodies and flood risk management and positively interact with other environmental components including biodiversity and flora and fauna.</p> <p>The SEA process that has been undertaken alongside the preparation of the Draft Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 "Mitigation Measures" of this report. By integrating provisions for environmental protection and management into the Plan, Carlow and Laois County Councils are helping to ensure that:</p> <ul style="list-style-type: none"> • The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and • The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised. 				
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8.7.7 Chapter 8: Sustainable Communities

	Likely to Improve status of SEOs +	Potential Conflict with status of SEOs - likely to be mitigated -	Probable Conflict with status of SEOs - unlikely to be mitigated -	No Likely interaction with status of SEOs 0
<p>This chapter sets out the provisions of the Plan relating to sustainable communities. The assessment of these provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:</p> <ul style="list-style-type: none"> • Environmental effects detailed under subsections 8.2 to 8.6 of this report; and • Assessments of the selected alternatives for the Plan provided at Section 7 of this report. 	BFF PHH S W MA A C CH L	BFF PHH S W MA A C CH L		

<p>Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the town and focus on directing compact, sustainable development within the existing envelope of the Plan area. Development of these generally more robust, well-serviced and well-connected areas of the town will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the town to become a more desirable place to live – so that it maintains populations and services. Compatible sustainable development in the town's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.</p> <p>Plan provisions relating to infrastructure and environmental services would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities and sustainable development of the Plan area, in combination with other Plan provisions and other plans, programmes, strategies, etc. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.</p> <p>This chapter aims to facilitate the development of sustainable and inclusive communities in Carlow-Graigucullen that respond to the needs of the current and future population of the joint urban area, and through support for the provision, expansion and enhancement of key facilities, services and amenities including healthcare, education, childcare, recreation, arts, and culture. This includes provision for the promotion and support of the development of connected communities and the attainment of the 10-Minute town, which focuses on reducing car dependency by seeking to have all community facilities, services, and amenities accessible within a 10-minute walk or cycle from homes or by public transport; this would reduce the need to travel, which would therefore reduce car dependency, emissions, air pollution and congestion.</p> <p>The SEA process that has been undertaken alongside the preparation of the Draft Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 “Mitigation Measures” of this report. By integrating provisions for environmental protection and management into the Plan, Carlow and Laois County Councils are helping to ensure that:</p> <ul style="list-style-type: none"> • The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and • The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised. 				
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8.7.8 Chapter 9: Built Heritage

	Likely to Improve status of SEOs +	Potential Conflict with status of SEOs - likely to be mitigated -	Probable Conflict with status of SEOs - unlikely to be mitigated -	No Likely interaction with status of SEOs 0
<p>This chapter sets out the provisions of the Plan relating to built heritage. The assessment of these provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:</p> <ul style="list-style-type: none"> • Environmental effects detailed under subsections 8.2 to 8.6 of this report; and • Assessments of the selected alternatives for the Plan provided at Section 7 of this report. <p>Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the town and focus on directing compact, sustainable development within the existing envelope of the Plan area. Development of these generally more robust, well-serviced and well-connected areas of the town will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the town to become a more desirable place to live – so that it maintains populations and services. Compatible sustainable development in the town's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.</p>	BFF PHH S W MA A C CH L	BFF PHH S W MA A C CH L		

<p>Plan provisions relating to built heritage would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities and sustainable development of the Plan area, in combination with other Plan provisions and other plans, programmes, strategies, etc. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.</p> <p>This chapter aims to protect, conserve and manage the built heritage of Carlow-Graiguecullen, by promoting the understanding, enhancement, and appropriate development of these assets, to ensure they contribute to the further sustainable development and heritage-led regeneration of the joint urban area. The provisions contained within this chapter in combination with other provisions, including those within Chapter 5 “Urban Design, Town Centre, and Regeneration”, operationalise the selected Built Heritage Alternative for the Plan and associated effects (refer to Section 7 of this report).</p> <p>The SEA process that has been undertaken alongside the preparation of the Draft Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 “Mitigation Measures” of this report. By integrating provisions for environmental protection and management into the Plan, Carlow and Laois County Councils are helping to ensure that:</p> <ul style="list-style-type: none"> • The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and • The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised. 				
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8.7.9 Chapter 10: Natural Heritage, Green Infrastructure and Landscape

	Likely to Improve status of SEOs	Potential Conflict with status of SEOs - likely to be mitigated	Probable Conflict with status of SEOs - unlikely to be mitigated	No Likely interaction with status of SEOs
<p>This chapter sets out the provisions of the Plan relating to natural heritage, green infrastructure and the landscape. The assessment of these provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:</p> <ul style="list-style-type: none"> • Environmental effects detailed under subsections 8.2 to 8.6 of this report; and • Assessments of the selected alternatives for the Plan provided at Section 7 of this report. <p>Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the town and focus on directing compact, sustainable development within the existing envelope of the Plan area. Development of these generally more robust, well-serviced and well-connected areas of the town will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the town to become a more desirable place to live – so that it maintains populations and services. Compatible sustainable development in the town’s sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.</p> <p>Plan provisions relating to natural heritage, green infrastructure and the landscape would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities and sustainable development of the Plan area, in combination with other Plan provisions and other plans, programmes, strategies, etc. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.</p> <p>This chapter aims to protect and enhance the natural heritage and landscape of Carlow-Graiguecullen, thereby ensuring it makes a significant and positive contribution to biodiversity and the public realm, to the health, well-being, and recreational needs of residents, and to the role of green infrastructure as a</p>	+	-	-	0

<p>natural asset capable of strengthening climate resilience in the joint urban area.</p> <p>The development of new, and enhancement of existing, green infrastructure has the potential to contribute towards sustainable mobility and a better management of movements in sensitive areas, thereby benefitting various environmental components, including habitats, at certain locations. The development of and enhancement of green infrastructure, however, presents a variety of potentially adverse environmental effects that would, if unmitigated, have the potential to arise from both the construction and operation of such developments and/or their ancillary infrastructure. These types of infrastructure are often constructed in ecologically and visually sensitive areas adjacent to the banks of rivers and streams. The development of green infrastructure can achieve synergies with regard to the provision of open space amenities, sustainable mobility, the sustainable management of water, the protection and management of biodiversity, the protection of cultural heritage and the protection of protected landscape sensitivities.</p> <p>The SEA process that has been undertaken alongside the preparation of the Draft Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 "Mitigation Measures" of this report. By integrating provisions for environmental protection and management into the Plan, Carlow and Laois County Councils are helping to ensure that:</p> <ul style="list-style-type: none"> • The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and • The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised. 				
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8.7.10 Chapter 11: Climate Action

	Likely to Improve status of SEOs +	Potential Conflict with status of SEOs - likely to be mitigated -	Probable Conflict with status of SEOs - unlikely to be mitigated -	No Likely interaction with status of SEOs 0
<p>This chapter sets out the provisions of the Plan relating to climate action. The assessment of these provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:</p> <ul style="list-style-type: none"> • Environmental effects detailed under subsections 8.2 to 8.6 of this report; and • Assessments of the selected alternatives for the Plan provided at Section 7 of this report. <p>Section 8.5 of this report identifies how climate action has been integrated into the Plan and wider planning framework.</p> <p>Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the town and focus on directing compact, sustainable development within the existing envelope of the Plan area. Development of these generally more robust, well-serviced and well-connected areas of the town will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the town to become a more desirable place to live – so that it maintains populations and services. Compatible sustainable development in the town's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.</p> <p>Plan provisions relating to climate action would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities and sustainable development of the Plan area, in combination with other Plan provisions and other plans, programmes, strategies, etc. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.</p> <p>This chapter aims to tackle the challenge of climate change in Carlow-Graiguecullen, with a focus on the role of spatial planning in contributing to the</p>	<p>BFF PHH S W MA A C CH L</p>	<p>BFF PHH S W MA A C CH L</p>		

<p>transition of the joint urban area to a low-carbon and climate resilient future, and through targeted climate change mitigation and adaptation measures aimed at reducing greenhouse gases and increasing energy efficiency and conservation. Issues addressed include those relating to:</p> <ul style="list-style-type: none"> • Integrated Land Use Planning & Sustainable Travel; • Urban Regeneration & Compact Growth; • Renewable Energy; • Energy Efficiency and Conservation; • Nature-Based Solutions and Green Infrastructure; • Flood Risk Management; and • Sustainable Urban Drainage Systems (SuDS). <p>The SEA process that has been undertaken alongside the preparation of the Draft Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 “Mitigation Measures” of this report. By integrating provisions for environmental protection and management into the Plan, Carlow and Laois County Councils are helping to ensure that:</p> <ul style="list-style-type: none"> • The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and • The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised. 				
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8.7.11 Chapter 12: Land Use Zoning Objectives and Implementation

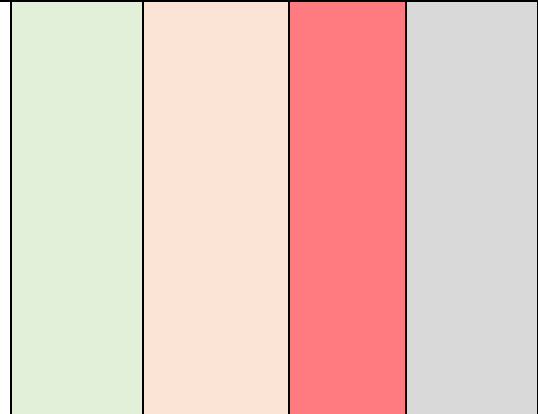
	Likely to Improve status of SEOs +	Potential Conflict with status of SEOs - likely to be mitigated -	Probable Conflict with status of SEOs - unlikely to be mitigated -	No Likely interaction with status of SEOs 0
<p>This chapter sets out the provisions of the Plan relating to land use zoning and implementation. The assessment of these provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:</p> <ul style="list-style-type: none"> • Environmental effects detailed under subsections 8.2 to 8.6 of this report; and • Assessments of the selected alternatives for the Plan provided at Section 7 of this report. <p>Section 8.5 of this report identifies how climate action has been integrated into the Plan and wider planning framework.</p> <p>Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the town and focus on directing compact, sustainable development within the existing envelope of the Plan area. Development of these generally more robust, well-serviced and well-connected areas of the town will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the town to become a more desirable place to live – so that it maintains populations and services. Compatible sustainable development in the town’s sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.</p> <p>Plan provisions relating to land use zoning and implementation would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities and sustainable development of the Plan area, in combination with other Plan provisions and other plans, programmes, strategies, etc. Potential adverse environmental effects arising from land use development and activities include in-combination effects arising from services and infrastructure to service development, for example those relating to water services, transport and energy.</p> <p>This chapter aims to manage and deliver new development in Carlow-Graigucullen to ensure that it occurs in an orderly and efficient manner and in</p>	BFF PHH S W MA A C CH L	BFF PHH S W MA A C CH L		

accordance with proper planning and sustainable development. The provisions contained within this chapter in combination with other Plan provisions, operationalise the selected Compact Development Alternative for the Plan and associated effects (refer to Section 7 of this report).

Environmental considerations, including those relating to ecology, cultural heritage, landscape and flood risk, were integrated into the Draft Plan's zoning through an interdisciplinary approach that was informed by the environmental considerations identified by the SEA, AA and SFRA processes. Zoning has been applied in a way that primarily seeks to achieve sustainable and compact growth, taking into account the various requirements set out in the higher-level NPF, Eastern and Midland RSES, Southern RSES and Carlow and Laois County Development Plans.

The SEA process that has been undertaken alongside the preparation of the Draft Plan has brought about various changes to the emerging Plan through an iterative process. Some of these measures are reproduced under Section 9 "Mitigation Measures" of this report. By integrating provisions for environmental protection and management into the Plan, Carlow and Laois County Councils are helping to ensure that:

- The potential significant adverse effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are avoided, reduced or offset; and
- The beneficial environmental effects of implementing the Plan, in combination with implementation of other provisions from the Plan and other plans, programmes, etc., are maximised.



Section 9 Mitigation Measures

9.1 Introduction

Mitigation measures are measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse impacts on the environment of implementing the Plan. Various environmental sensitivities and issues have been communicated to the Councils through the SEA, Appropriate Assessment (AA) and Strategic Flood Risk Assessment (SFRA) processes. By integrating all related recommendations into the Draft Plan, the Councils have ensured that both the beneficial environmental effects of implementing the Plan have been and will be maximised and that potential adverse effects have been and will be avoided, reduced or offset.

Mitigation was achieved through:

- Strategic work undertaken by the Councils to ensure contribution towards environmental protection and sustainable development;
- Considering alternatives for the Plan;
- The integration of environmental considerations into zoning provisions of the Plan;
- The integration of individual SEA, AA and SFRA provisions into the text of the Local Area Plan; and
- The integration of individual provisions into the text of the existing, already in force, County Development Plans.

9.2 Strategic work undertaken by the Councils to ensure contribution towards environmental protection and sustainable development

Far in advance of the placing of the Draft Plan on public display, Carlow and Laois County Councils undertook various works in order to inform the preparation of the Plan.

Strategic work undertaken by the Councils includes background work in relation to Plan provisions, including those relating to:

- Development Strategy;
- Population, Housing and Compact Growth Climate Action;
- Town Centre and Regeneration;
- Economic Development;
- Infrastructure and Transport;
- Built and Natural Heritage;
- Climate Action and Flood Risk Assessment;
- Social and Community Infrastructure; and
- Land Use Zoning.

The undertaking of the SEA process was part of this strategic work and contributed towards the integration of environmental considerations into individual Plan provisions as detailed under Table 9.1.

9.3 Consideration of Alternatives

Although strategic alternatives in relation to the content of the Plan were significantly limited for the Plan (see Section 6), as part of the Plan preparation/SEA process alternatives for the Plan were considered.

These alternatives were assessed by the SEA process (see Section 7) and the findings of this assessment informed the selection of alternatives for the Plan, facilitating an informed choice with respect to the type of Plan that was prepared and placed on public display.

9.4 Integration of environmental considerations into Zoning of the Plan

Environmental considerations, including those relating to ecology, cultural heritage, landscape and water, were integrated into the Draft Plan's zoning through an interdisciplinary approach that was informed by the environmental considerations identified by the SEA, AA and SFRA processes.

Zoning has been applied in a way that primarily seeks to achieve sustainable and compact growth, taking into account the various requirements set out in the higher-level NPF, Eastern and Midland RSES, Southern RSES and Carlow and Laois County Development Plans.

Flood risk management and drainage provisions are already in force through the County Development Plans and related provisions have been integrated into the JULAP. In addition, land use zoning contained within the Draft Plan has been informed by the SFRA process and associated delineation of flood risk zones. The detailed Plan preparation process undertaken by the Planning Department combined with specialist input from the SFRA process facilitated zoning that helps to avoid inappropriate uses being provided for in areas of elevated flood risk.

9.5 Integration of individual provisions into the text of the Draft Plan

Various provisions have been integrated into the text of the Draft Plan through the Plan-preparation and SEA, SFRA and AA processes. Both the Planning and the assessment teams contributed towards the mitigation which was developed over multiple iterations and was informed by, inter alia, various communications through the SEA, AA and SFRA processes.

Table 9.1 links key mitigation measure(s) to the likely significant effects of implementing the Plan, if unmitigated. The measures generally benefit multiple environmental components i.e. a measure providing for the protection of biodiversity, flora and fauna could beneficially impact upon the minimisation of flood risk and the protection of human health, for example.

9.6 Integration of individual provisions into the text of the County Development Plans

In addition to the individual provisions integrated into the text of the Draft Local Area Plan, individual provisions relating to environmental protection and management have been integrated into the existing, already in force, Carlow and Laois County Development Plans. These measures, which must be complied with by development under the Local Area Plan, are identified alongside the Local Area Plan measures on Table 9.1.

Table 9.1 Integration of Environmental Considerations into the Plan

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
Various – see below	Various – see below	<p>SO. 1: Encourage and support town centre led urban regeneration for Carlow-Graiguecullen, focusing on the appropriate redevelopment and reuse of key derelict, vacant and underutilised sites and buildings, the consolidation of the town through the use of brownfield, infill and backland sites, the conservation of historic building stock, and the implementation of streetscape and public realm improvements.</p> <p>SO. 2: Encourage and facilitate balanced economic development and employment opportunities in Carlow-Graiguecullen, ensuring a vibrant local economy that maximises business and investment opportunities and the existing economic attributes of the town, and supports the development of a diverse range of economic sectors.</p> <p>SO. 3: Improve the public realm and attractiveness of Carlow-Graiguecullen through the delivery of high-quality urban design outcomes, taking account of the need to respond to the social and physical characteristics of the existing built environment and those features that should be protected and/or enhanced by, and inform, new development.</p> <p>SO. 4: Prioritise integrated transport and land use, supported by investment in public transport, active travel networks and shared, low-carbon mobility options, which will improve people's travel choices and support safe, sustainable, and healthy lifestyles.</p> <p>SO. 5: Promote Carlow-Graiguecullen as a priority location for regional level community and social infrastructure and support the expansion and enhancement of existing community facilities, the provision of residential development, and a range of new community facilities in tandem with population growth to meet the needs of future residents in the joint urban area.</p> <p>SO. 6: Transition Carlow-Graiguecullen to a low-carbon and climate resilient town through a combination of effective mitigation and adaptation measures, in addition to maximising opportunities for energy efficiency, renewables, and decarbonisation.</p> <p>SO. 7: Manage the development of Carlow-Graiguecullen in a manner that protects, conserves, and enhances the natural and built heritage of the area.</p> <p>SO. 8: Support the development of, and investment in new and existing arts, culture and tourism infrastructure and amenities in Carlow-Graiguecullen.</p>	<p>Carlow County Development Plan Strategic Environmental Assessment</p> <p>SEA P1: Implement the monitoring programme as set out in the SEA Environmental Report and Statement, in conjunction with the Regional Assembly and other sources as relevant. This will include the preparation of standalone SEA Monitoring Reports to accompany:</p> <p>a) The report required of the Chief Executive under section 15(2) of the Act, including information in relation to progress on, and the results of, monitoring the significant environmental effects of implementation of the development plan;</p> <p>b) In advance of the beginning of the review of the next County Development Plan (2028 – 2032) on the significant environmental effects of implementing this Plan.</p> <p>Sustainable Development Goals - Policy</p> <p>SDG P1: Contribute, as practicable, via this Plan, towards achievement of the 17 Sustainable Development Goals of the United Nations' 2030 Agenda for Sustainable Development.</p> <p>Ecosystems Services Approach and Natural Capital Ecosystems – Policies</p> <p>It is the policy of the Council to:</p> <p>ES P1: Promote an Ecosystem Services Approach in the preparation of lower-level Plans, Strategies and Development Management.</p> <p>Rural Housing Siting and Design - Policies</p> <p>RH P6: Ensure, in addition to the requirement to comply with the rural housing policy criteria, that applicants demonstrate compliance with all normal siting and design requirements. The siting, layout and design of a new rural house shall appropriately integrate with its physical surroundings, including the natural and built heritage of the area, taking account of:</p> <p>(i) The Rural Housing Design Guidelines in Chapter 13.</p> <p>(ii) The character, sensitivity and capacity of the County's landscape as detailed in Chapter 9.</p> <p>(iii) The capacity of the area to absorb further development, taking account of the extent of existing development in the area, the extent of ribbon development in the area, the degree of existing haphazard or piecemeal development in the area, and the degree of development on a single original landholding.</p> <p>(iv) The protection and preservation of features in the landscape that contribute to local distinctiveness, attractiveness, and ecology, and which can assist in visually absorbing rural housing into its countryside. These features include hedgerows, trees, sod/stone banks and stone walls, historic and archaeological landscapes, water bodies, ridges, skylines, topographical features and important views and prospects. Recessed development located / set back into the landscape away from the public road may be considered where the siting is appropriate to the rural context and provides for the protection of environmental, visual and residential amenities.</p> <p>(v) The ability to provide a safe vehicular entrance in accordance with Transport Infrastructure Ireland publications (Refer Section 16.10.7) and without the need to remove an extensive amount of hedgerow or trees to achieve sightlines.</p> <p>(vi) The ability of a site to accommodate an on-site wastewater treatment system in compliance with the EPA Code of compliance with the 2021 EPA Code of Practice for Wastewater Treatment and Disposal Systems Serving Single Houses p.e. ≤ 10.</p> <p>(vii) The ability of a site to accommodate an appropriate on-site surface water management system in accordance with Carlow County Council SuDS Policy, and the 'SuDS Manual' CIRIA C753.</p> <p>(viii) The need to comply with the requirements of The Planning System and Flood Risk Management Guidelines for Planning Authorities DoEHLG and OPW (2009).</p> <p>(ix) The need to comply with the Spatial Planning and National Roads Guidelines for Planning Authorities DECLG (2012).</p> <p>Section 5.9 "Infrastructure Improvement Process"</p> <p>New roads and other transport infrastructure projects (including greenways, blueways and cycleways) referred to by this Plan that are not already provided for by plans/ programmes other than the County Development Plan or are not already permitted, are subject to the undertaking of feasibility assessment, taking into account planning need, environmental sensitivities as identified in the SEA Environmental Report and the objectives of the Plan relating to sustainable mobility. Where feasibility is established, a Corridor and Route Selection Process will be undertaken where appropriate, for relevant new road infrastructure in two stages:</p> <p>Stage 1 – Route Corridor Identification, Evaluation and Selection</p> <ul style="list-style-type: none"> • Environmental constraints (including those identified in Section 4 of the SEA Environmental Report) and opportunities (such as existing linear infrastructure) will assist in the identification of possible route corridor options; • Potentially feasible corridors within which infrastructure could be accommodated will be identified and these corridors assessed. The selection of the preferred route corridor will avoid constraints and meet opportunities to the optimum extent, as advised by the relevant specialists; and • In addition to the constraints identified above, site-specific field data may be required to identify the most appropriate corridors. <p>Stage 2 – Route Identification, Evaluation and Selection</p> <ul style="list-style-type: none"> • Potentially feasible routes within the preferred corridor will be identified and assessed. The selection of preferred routes will avoid constraints and meet opportunities to the optimum extent, as advised by the relevant specialists, taking into account project level information and potential mitigation measures that are readily achievable; • In addition to the constraints identified above, site specific field data may be required to identify the most appropriate routes; and

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
		<p>TD. P1: Support and facilitate the development of the tourism industry in Carlow-Graiguecullen with an emphasis on utilising and harnessing the potential of the natural and built heritage of the joint urban area, subject to compliance with normal planning and environmental criteria.</p> <p>TD. P7: Develop and maximise the tourism potential of Carlow-Graiguecullen by facilitating the appropriate expansion of existing facilities and the provision of new universally accessible and sustainable tourist attractions, facilities, and infrastructure in the joint urban area, while ensuring the protection of the environment and subject to compliance with normal planning and environmental criteria.</p> <p>TD. P12: Facilitate, where appropriate, increased access to the River Barrow and Burren River, subject to compliance with normal planning and environmental criteria.</p> <p>TD. P16: Encourage and support an improved night-time economy in Carlow-Graiguecullen through the increased use of existing and temporary spaces for Culture, Arts and Entertainment uses including through extended opening hours for existing attractions, subject to compliance with normal planning and environmental criteria.</p> <p>WW. P1: Facilitate and support Uisce Éireann in the delivery of public wastewater services in Carlow-Graiguecullen to serve the needs of the existing and future population of the Plan area, subject to compliance with normal planning and environmental criteria and the standards and requirements set out in EU and national legislation and guidance.</p> <p>HF. P1: Support the Health Service Executive (HSE) and other statutory, private, and voluntary operators in the provision of new and improved healthcare facilities and services at appropriate locations in Carlow-Graiguecullen and subject to compliance with normal planning and environmental criteria.</p> <p>GI. P1: Protect and enhance the biodiversity and ecological function of the green infrastructure network in Carlow-Graiguecullen.</p> <p>GI. P2: Identify, protect, maintain, and enhance existing and planned green infrastructure assets in Carlow-Graiguecullen, and recognise the wide range of environmental, social, and economic benefits of green spaces and nature-based solutions by ensuring the integration of green infrastructure planning and development in the planning process. GI. P3: Protect and preserve landscape features which significantly contribute to green infrastructure in Carlow-Graiguecullen, including trees, hedgerows, woodlands,</p>	<p>• In addition to environmental considerations, the identification of route corridors and the refinement of route lines is likely to be informed by other considerations.</p> <p>Forestry – Policies FR P1: Encourage the development of a well-managed sustainable forestry sector with a diversity of species including native hardwood species, which maximises its contribution to the economic and social wellbeing of the county and which is;</p> <ul style="list-style-type: none"> - compatible with the protection of the environment including the avoidance of likely significant effects on Natura 2000 sites. - which does not detract substantially from landscape and visual amenity, protected or scenic views, , built heritage, archaeological / geological features, or cause pollution or degradation to wildlife habitats, natural waters or areas of ecological importance; - which does not obstruct existing public rights of way, traditional walking routes or recreational and tourism amenities and - which is planted, managed and harvested in accordance with the Forest Service Guidelines for Landscape, Forest Harvesting and Environmental, Archaeology, Biodiversity, Water Quality and requirements regarding the protection of the Freshwater Pearl Mussel. <p>Extractive Industry - Aggregates (stone, sand and gravel) and Mineral Resources - Policies EI P6: To ensure that development for aggregates / mineral extraction, processing and associated processes does not significantly impact the following:</p> <ul style="list-style-type: none"> - Existing and proposed European Sites; - Other areas of importance for the conservation of flora and fauna; - Areas of significant archaeological potential including recorded monuments; - Important aquifers and sensitive groundwater resources; - Sensitive landscapes; and - Established rights of way. <p>It is an objective of the Council to:</p> <p>EI O1: Support RSES policy for the adequate supply of aggregate and mineral resources to ensure the continued growth of the county and region and to ensure that all quarrying activities and projects associated with extractive industry comply with all relevant Planning and Environmental Legislation.</p> <p>EI O2: Consult with the Geological Survey of Ireland (GSI) with regard to any developments likely to have an impact on Sites of Geological Importance listed in Chapter 10 of this Plan..</p> <p>Section 16.11.10 Undergrounding Cables Where undergrounding of cables is being pursued, proposals should demonstrate that environmental impacts including the following are minimised:</p> <ul style="list-style-type: none"> • Habitat loss as a result of removal of field boundaries and hedgerows (right of way preparation) followed by topsoil stripping (to ensure machinery does not destroy soil structure and drainage properties); • Short to medium term impacts on the landscape where, for example, hedgerows are encountered; • Impacts on underground archaeology; • Impacts on soil structure and drainage; and • Impacts on surface waters as a result of sedimentation. <p>Section 16.11.5 Construction and Environmental Management Plans Construction Environment Management Plans shall be a requirement of any major planning permission for residential, community, employment or infrastructure related development and implemented throughout the construction / operational period as appropriate. The Plan shall be prepared having regard to the EPA Best Practice Guidelines for the preparation of Resource Management Plans for Construction and Demolition Waste Projects. Such plans shall incorporate relevant mitigation measures which have been integrated into the plan / project and where relevant any Environmental Impact Assessment or Appropriate Assessment.</p> <p>CEMPs typically provide details of intended construction practice for the proposed development, including:</p> <ol style="list-style-type: none"> a) location of the sites and materials compound(s) including area(s) identified for the storage of construction refuse; b) location of areas for construction site offices and staff facilities; c) details of site security fencing and hoardings; d) details of on-site car parking facilities for site workers during the course of construction; e) details of the timing and routing of construction traffic to and from the construction site and associated directional signage; f) measures to obviate queuing of construction traffic on the adjoining road network; g) measures to prevent the spillage or deposit of clay, rubble or other debris; h) alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of any public right of way during the course of site development works; i) details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels; j) containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained (such bunds shall be roofed to exclude rainwater); k) disposal of construction/demolition waste and details of how it is proposed to manage excavated soil, including compliance with the EPA's 'Best Practice Guidelines for the Preparation of Resource Management Plans for Construction & Demolition Projects 2021, which supersedes previous 2006 Guidelines published by the Department of the Environment, Heritage and Local Government; l) a water and sediment management plan, providing for means to ensure that surface water runoff is controlled such that no silt or other pollutants enter

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
		<p>wetlands, watercourses, and other habitats.</p> <p>GI. P4: Require the protection and integration of new and existing green infrastructure as an essential component of all new developments in Carlow-Graiguecullen, and to ensure future development does not fragment, damage, or prejudice the integrity of the green infrastructure network in the joint urban area.</p> <p>GI. P5: Ensure the green infrastructure and habitat features identified on Map 10.3, Network of Existing Green Infrastructure in Carlow-Graiguecullen, and the linkages between them and surrounding rural areas, are integrated into the design of new developments as far as practicable.</p> <p>GI. P6: Require development proposals to include an outline of measures to protect the retained green infrastructure of a site during the period of construction. GI. P7: Require large scale development proposals in the joint urban area such as residential schemes, industrial development, or retail schemes, to submit a green infrastructure plan as an integral part of a planning application. GI. P8: Promote a network of pedestrian and cycle paths to enhance accessibility to the green infrastructure network in Carlow-Graiguecullen, while ensuring that the layout, design, and operation of the routes responds to the ecological protection needs of each site. GI. P9: Incorporate elements of green infrastructure into existing areas of hard infrastructure in the joint urban area, where possible, thereby integrating these areas of the existing urban environment into the overall green infrastructure network.</p> <p>GI. P10: Promote appropriate tree planting and pollinator friendly planting, in accordance with the recommendations of the All-Ireland Pollinator Plan 2021-2025 throughout Carlow-Graiguecullen and in open spaces within new developments, in order to enhance local biodiversity, visual amenity and surface water management. GI. P11: Ensure that green areas and open spaces associated with new residential developments and other relevant projects provide multifunctional benefits that enrich quality of life for local communities, ecologically rich areas that enhance biodiversity, and sustainable water management.</p> <p>GI. P12: Take account of Inland Fisheries guidance 'Planning for Watercourses in the Urban Environment, A Guide to the Protection of Watercourses through the use of Buffer Zones, Sustainable Drainage Systems, Instream Rehabilitation, Climate/Flood Risk and Recreational Planning' (2020) when considering</p>	<p>local water courses or drains;</p> <p>m) details of a water quality monitoring and sampling plan;</p> <p>n) if peat is encountered - a peat storage, handling and reinstatement management plan;</p> <p>o) measures adopted during construction to prevent the spread of invasive species (such as Japanese Knotweed);</p> <p>p) appointment of an ecological clerk of works at site investigation, preparation and construction phases; and</p> <p>q) details of appropriate mitigation measures for lighting specifically designed to minimise impacts to biodiversity, including bats.</p> <p>Section 16.15.4 "Tourism Activities / Developments Based on Natural Features"</p> <p>There are a range of recreational activities based on natural resources. In many cases these are generally based in rural areas.</p> <ul style="list-style-type: none"> • All planning applications for these adventure / recreational activities involving special natural features should be accompanied by a management plan indicating projected numbers of users, hours of operation, seasons of operation, and an undertaking to protect the natural environment in the form of a risk assessment with proposed amelioration measures in respect of flora, fauna, hydrology, geology and soils. • Proposals should seek to manage any increase in visitor numbers in order to avoid significant effects including loss of habitat and disturbance, including ensuring that any new projects are a suitable distance from ecological sensitivities. Where relevant, the Council and those receiving permission for development under the Plan shall seek to manage any increase in visitor numbers and/or any change in visitor behaviour in order to avoid significant effects, including loss of habitat and disturbance. Management measures may include ensuring that new projects and activities are a suitable distance from ecological sensitivities. Visitor/Habitat Management Plans will be required for proposed projects as relevant and appropriate. • All proposals should be accessible insofar as possible by sustainable means of transport including public transport and by modes other than the car. • Where the traffic generated is likely to exceed the capacity of the local road network or require changes to the road network that would adversely affect the character of the area, these will not be permitted. • Where the activity is likely to be noise generating, a noise assessment will be required in connection with the application, measuring likely noise levels at the nearest noise sensitive recipients. Measures to mitigate any adverse impacts shall be identified. <p>Laois County Development Plan</p> <p>Overarching Core Strategy Policy Objectives</p> <p>CS 03 In the assessment of development proposals, to take account of transport corridors, environmental carrying capacity, availability and/or capacity to provide waste water and water supply services, potential to conflict with Water Framework Directive objectives, potential to impact on the integrity of European sites and Annexed Habitats and species, features of biodiversity value including ecological networks, impact on landscape and visual characteristics, education and other socioeconomic objectives</p> <p>Ecosystems Approach Policy Objectives</p> <p>CS 35 Promote an Ecosystem Services Approach in the preparation of lower-level plans, strategies and Development Management</p> <p>CS 36 Contribute, as practicable, towards achievement of the 17 Sustainable Development Goals of the United Nations' 2030 Agenda for Sustainable Development, which came into force in 2016</p> <p>NRE 3 Ensure the provision, where feasible, of electricity cables been located underground, especially in the urban environment, and generally within areas of public open space. Where undergrounding of cables is being pursued, proposals should demonstrate that environmental impacts including the following are minimised:</p> <ul style="list-style-type: none"> • Habitat loss as a result of removal of field boundaries and hedgerows (right of way preparation) followed by topsoil stripping (to ensure machinery does not destroy soil structure and drainage properties); • Short to medium term impacts on the landscape where, for example, hedgerows are encountered; • Impacts on underground archaeology; • Impacts on soil structure and drainage; and • Impacts on surface waters as a result of sedimentation. <p>Volume 2 Environmental considerations and imitations in the types of uses</p> <p>There are a wide range of land use types identified under each of the Land Use Zoning Objectives. Proposals for development will need to demonstrate compliance with the various written provisions of the Plan, as relevant, including those relating to environmental protection and management. Environmental considerations, such as those related to elevated levels of flood risk or European site ecological designations, may limit the types of uses that may be possible at certain sites. Prospective applicants are encouraged to engage with the planning authority at the earliest opportunity to seek guidance as to the appropriateness of emerging proposals.</p> <p>TRANS 15 It is a Policy Objective that where projects for new roads or other linear projects, identified in Chapter 10 and Volume 2, are not already provided for by existing plans/programme or are not already permitted, that the feasibility of progressing these projects shall be examined, taking into account environmental sensitivities as identified in the SEA Environmental Report and the objectives of the Plan relating to sustainable mobility. A Corridor and Route Selection Process will be undertaken where appropriate, for relevant new road infrastructure in two stages:</p> <ul style="list-style-type: none"> • Stage 1 – Route Corridor Identification, Evaluation and Selection; and • Stage 2 – Route Identification, Evaluation and Selection.

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		<p>development proposals in the vicinity of rivers and streams in Carlow-Graigucullen.</p> <p>GI. P13: Incorporate items of historical or heritage importance within the green infrastructure network in Carlow-Graigucullen as amenity features, as far as practicable.</p> <p>GI. P14: Seek to protect trees and hedgerows in the joint urban area with a particular local amenity or conservation value and encourage the planting of native tree and hedgerow species.</p> <p>GI. O1: Support the implementation of the Carlow Town Biodiversity Strategy and Action Plan 2021-2025, and any subsequent updated version this document.</p> <p>GI. O2: Investigate the feasibility of providing a wetland amenity area on lands comprising the former Sugar Factory lagoons, in conjunction with relevant stakeholders and local community groups, taking account of the environmental sensitivities of the land and the need to ensure impacts to biodiversity and nature conservation interests are avoided.</p>	
Biodiversity and flora and fauna	<p>Arising from both construction and operation of development and associated infrastructure:</p> <ul style="list-style-type: none"> Loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna; Habitat loss, fragmentation and deterioration, including patch size and edge effects; and Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species such as birds (e.g. swifts) and bats. 	<p>NH. P1: Protect, manage, and enhance the natural heritage, biodiversity, landscape, and environment of Carlow-Graigucullen in recognition of its importance as a non-renewable resource, a unique identifier, as a natural resource, an ecosystem services asset that can contribute towards sustainable urban drainage, flood management, and climate action.</p> <p>NH. P2: Support the conservation and enhancement of the River Barrow and River Nore SAC, and to protect the SAC from any plans and projects that are likely to have a significant effect on the coherence or integrity of the designated site, in accordance with relevant EU environmental directives and applicable national legislation, policies, plans and guidelines.</p> <p>NH. P3: Ensure that Appropriate Assessment Screening, and if required Appropriate Assessment, is carried out in respect of plans and projects in Carlow-Graigucullen. Where likely significant effects have been identified in respect of any plan or project not directly connected with or necessary to the management of the River Barrow and River Nore SAC, either individually or in combination with other plans or projects, ensure Appropriate Assessment in accordance with Article 6(3) of the EU Habitats Directive. Carlow County Council and Laois County Council shall only agree to the plan or project after having ascertained that it will not adversely affect the</p>	<p>Carlow County Development Plan</p> <p>Light Pollution - Policies</p> <p>It is the policy of the Council to:</p> <p>LP P1: Ensure that the design of external lighting schemes minimises the incidence of light spillage or pollution in the immediate surrounding environment and has due regard to the residential amenity of surrounding areas and the need to mitigate adverse impacts on sensitive fauna and protected species.</p> <p>LP P2: Require the use of energy efficient lighting in all new development proposals.</p> <p>LP P3: Seek to ensure that the use of energy efficient (LED) lighting, both in relation to planning applications and local authority projects, minimises any significant adverse effects on biodiversity with the use of appropriate lighting in sensitive areas.</p> <p>Natural Heritage - Policies and Objectives</p> <p>NH P1: Protect, manage and enhance 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.</p> <p>NH P2: Ensure, as far as is practicable, that development does not adversely impact on wildlife habitats and species, and that biodiversity is conserved for the benefit of future generations in the interests of sustainability. This will include moving towards no net loss of biodiversity from plans adopted by and projects granted permission/authorised by the Council.</p> <p>NH P3: Support and co-operate with statutory authorities such as the National Parks and Wildlife Service (NPWS) and others on measures to manage designated nature conservation sites in order to achieve their conservation objectives. Specific regard shall be had to conservation objectives and conservation management plans where they exist for designated nature conservation sites.</p> <p>NH P4: Promote increased understanding and awareness of the natural heritage and biodiversity of the county.</p> <p>NH P5: Recognise that nature conservation is not just confined to designated sites and acknowledge the need to protect non-designated biodiversity, habitats and species not otherwise protected by legislation.</p> <p>NH P6: Protect and enhance the natural environment of County Carlow and recognise the important role of the natural heritage through its diversity, quality and integrity, in terms of enhancing the image of the County and contributing to quality of life, economic growth, tourism and recreation.</p> <p>NH P7: Promote development for recreation and educational purposes that does not conflict with maintaining the favourable conservation status of designated natural heritage sites, including the achievement of their conservation objectives.</p> <p>NH P8: Promote, protect and enhance sustainable and appropriate access to the natural heritage of the county.</p> <p>NH P9: To promote the carrying out of ecological/habitat assessments to inform the layout and design of development proposals and ensure they integrate the protection and enhancement of biodiversity and landscape features wherever possible, by minimising adverse impacts on existing habitats (whether designated or not) and by including mitigation and/or compensation measures, as appropriate.</p> <p>NHO 1: Implement relevant actions from the National Biodiversity Action Plan 2017-2021 (and any superseding plan) and to prepare a County Heritage Plan and Biodiversity Action Plan during the lifetime of this County Development Plan in accordance with RPO 126 in the RSES, to ensure the protection and appreciation of heritage and nature at local level including recognition of rich biodiversity of designation of existing special areas of conservation i.e. Blackstairs Mountains, Slaney River Valley and River Barrow and River Nore SAC.</p>

SEA Environmental Report for the Draft Carlow-Graiguecullen Joint Urban Local Area Plan 2024-2030

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
		<p>integrity of the SAC, unless the plan or project is subject to the provisions of Article 6(4) of the Habitats Directive.</p> <p>NH. P4: Contribute towards the protection, from significant adverse effects, of the ecological integrity, and the visual, recreational, environmental and amenity value of the Oak Park proposed Natural Heritage Area (pNHA) and associated habitats.</p> <p>NH. P5: Promote the carrying out of ecological/habitat assessments to inform the layout and design of development proposals and ensure they integrate the protection and enhancement of biodiversity and landscape features wherever possible in Carlow-Graiguecullen, by minimising adverse impacts on existing habitats (whether designated or not) and by including mitigation and/or compensation measures, as appropriate. NH. P6: Promote increased understanding and awareness of the natural heritage and biodiversity located in the joint urban area of Carlow-Graiguecullen. NH. P7: Promote development for recreation and educational purposes that does not conflict with maintaining the favourable conservation status of the River Barrow and River Nore SAC and Oak Park pNHA, including the achievement of their conservation objectives. NH. P8: Promote, protect, and enhance sustainable and appropriate access to natural heritage in Carlow-Graiguecullen.</p> <p>NH. P9: Identify, protect, conserve, and enhance wherever possible, wildlife habitats and species of local importance in Carlow-Graiguecullen, not otherwise protected by legislation. Such habitats can include woodland, river, wetlands, and grassland areas along with field boundaries (hedgerows, stone walls and ditches). These features form part of a network of habitats and corridors, which allow wildlife to exist and flourish and contribute to compliance with Article 10 of the Habitats Directive</p> <p>NH. P10: Protect and enhance the natural environment of Carlow-Graiguecullen and recognise the important role of the natural heritage in the area through its diversity, quality, and integrity, and in terms of enhancing the image of the joint urban area and contributing to quality of life and wellbeing, economic growth, tourism and recreation.</p> <p>NH. P11: Ensure that lighting proposals along water courses, rivers, and streams in the joint urban area, are not in conflict with bat species, and to ensure that expert advice is sought on such lighting proposals in order to mitigate the impacts of lighting on bats and other species</p>	<p>NS P1: Support the conservation and enhancement of Natura 2000 Sites, and to protect the Natura 2000 network from any plans and projects that are likely to have a significant effect on the coherence or integrity of a Natura 2000 Site, in accordance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines.</p> <p>NS P2: Screening for Appropriate Assessment and if required Appropriate Assessment is undertaken for all plans to be adopted and projects to be granted permission/authorised by the Council. Where likely significant effects have been identified in respect of any plan or project not directly connected with or necessary to the management of a Natura 2000 site, either individually or in combination with other plans or projects, ensure appropriate assessment, in accordance with Article 6(3) of the Habitats Directive. The Council shall only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site concerned, unless the plan or project is subject to the provisions of Article 6(4) of the Habitats Directive.</p> <p>NS P3: Consider impacts within a plan or project's zone of influence, which may include Natura 2000 sites outside the County, when assessing whether a plan or project is likely to have significant effects on Natura 2000 sites.</p> <p>NS P4: Maintain or restore the favourable conservation status of County's Natura 2000 sites qualifying interest habitats and species.</p> <p>NS O1: Strictly protect areas designated or proposed to be designated as Natura 2000 sites, including any areas that may be proposed for designation or designated during the period of this Plan.</p> <p>NHA P1: Contribute towards the protection, from significant adverse effects, of the ecological integrity and the visual, recreational, environmental and amenity value of the County's proposed Natural Heritage Areas (pNHAs) and associated habitats, including any designated Natural Heritage Areas (NHAs) during the lifetime of this Plan.</p> <p>NHA P2: Ensure that development proposals within or adjacent to a proposed Natural Heritage Area (pNHA) or Natural Heritage Area (NHA) are designed and sited to minimise significant impacts on the biodiversity (including net loss) and ecological, geological and landscape value of the site, particularly plant and animal species listed under the Wildlife Act 1976 (as amended), the Habitats Directive and the Birds Directive, including their habitats.</p> <p>NHA P3: Restrict development within a proposed Natural Heritage Area (pNHA) or Natural Heritage Area (NHA) to development that is directly related to the area's amenity potential or development that is required for the conservation management of these sites, subject to the protection and enhancement of natural heritage and visual amenities including biodiversity and landscapes.</p> <p>NHA P4: To consult with the National Parks and Wildlife Service (NPWS) and other appropriate prescribed bodies when assessing development proposals affecting proposed Natural Heritage Areas (pNHAs) and Natural Heritage Areas (NHA).</p> <p>ND P1: Conserve the existing flora, fauna and wildlife habitats in the County, including rare and threatened plant, animal and bird species, through the preservation of ecological corridors and ecological networks.</p> <p>ND P2: Ensure that development does not have a significant adverse effect on rare and threatened species, their breeding places, resting places, habitat or environment, as applicable, including those protected under the Wildlife Acts 1976 to 2021, the Birds Directive (2009/147/EC), the Habitats Directive (92/43/EEC) and including plant species listed on the Flora (Protection) Order 2015 (S.I. No. 356 of 2015).</p> <p>ND P3: Require the submission of an Ecological Impact Assessment, where deemed necessary, for any development proposal likely to have a significant impact on existing flora, fauna and wildlife habitats, including rare and threatened plant, animal and bird species.</p> <p>ND P4: Ensure that, where evidence exists of species that are protected under the Wildlife Act 1976 (as amended), the Bird Directive 1979, and the Habitats Directive 1992, appropriate avoidance and mitigation measures are incorporated into development proposals as part of any ecological impact assessment. In the event of a proposed development impact on a site known to be a breeding or resting site of species listed in the Habitats Regulations or the Wildlife Act 1976 (as amended) a derogation licence, issued by the Department of Housing, Local Government and Heritage, may be required.</p> <p>ND P5: Consult with the National Parks and Wildlife Service (NPWS) and take account of any licensing requirements when undertaking, approving and authorising development which is likely to affect plant, animal or bird species protected by law.</p> <p>ND P6: Ensure that the management of the Council's open spaces and parks is pollinator-friendly and provides more opportunities for biodiversity, supporting the objectives of the National Pollinator Plan 2021-2025. Where it is used, herbicide should be certified and applied as per the manufacturer's instructions.</p> <p>ND P7: Support the implementation of the All Ireland Pollinator Plan 2021-2025 and to incorporate actions as appropriate into a Biodiversity Plan for County Carlow providing more opportunities for biodiversity in accordance with RPO 128.</p> <p>ND P8: That biodiversity data generated during the lifetime of this Development Plan for the preparation of environmental assessment reports, shall be made available to the National Biodiversity Data Centre (NBDC).</p> <p>WT P1: Protect and manage existing woodlands, trees and hedgerow which are of amenity or biodiversity value and/or contribute to landscape character and ensure that proper provision is made for their consideration, protection and management when undertaking, approving or authorising development.</p> <p>WT P2: Ensure that hedgerow removal to facilitate development is kept to an absolute minimum and, where unavoidable, a requirement for mitigation planting will be required comprising a hedge of similar length and species composition to the original, established as close as is practicable to the original and where possible linking in to existing adjacent hedges. Native plants of a local provenance should be used for any such planting.</p> <p>WT P3: Adhere to the provisions of the Wildlife Act 1976 (as amended) in prohibiting the cutting of hedges during the bird nesting season (1st March to 31st August), except in certain legally defined circumstances.</p> <p>WT P4: Encourage the protection of historic hedgerows or significant hedgerows which serve to link habitat areas to each other and the surrounding countryside.</p> <p>WT P5: Recognise the biodiversity and archaeological importance of townland boundaries, including hedgerows, and promote their protection and retention.</p>

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Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
		and habitats.	<p>WT P6: Protect individual or groups of trees which are important for environmental, recreational, historical, biodiversity and/or aesthetic reasons or by reason of contribution to sense of place, and to discourage the felling of mature trees to facilitate development.</p> <p>WT P7: To contribute towards the protection where possible of the trees which are considered to be an important component of demesne landscapes.</p> <p>WT P8: Ensure a Tree Management Plan is provided so as existing tree planting is adequately protected during development and incorporated into the layout and design of new developments.</p> <p>WT O1: Promote the Native Woodland and Neighbourhood schemes and other initiatives that aim to establish and enhance woodlands for recreational and wildlife benefits.</p> <p>IW P1: Protect the biodiversity of rivers, streams and other watercourses, to maintain them in an open state, to discourage culverting or realignment, and where possible, uncover existing culverts and restore the watercourses to acceptable ecological standards and for the passage of fish.</p> <p>IW P2: Ensure that the County's watercourses are retained for their biodiversity and flood protection values and to conserve and enhance where possible, the wildlife habitats of the County's rivers, streams and riparian zones, including those which occur outside of designated areas, in order to provide a network of habitats and biodiversity corridors throughout the County.</p> <p>IW P3: Control the encroachment of development on watercourses and riparian zones and provide for protection measures to watercourses and their banks, including but not limited to: the prevention of pollution of the watercourse, the protection of the river bank from erosion, the retention and/or provision of wildlife corridors and the protection from light spill in sensitive locations, including during construction of permitted development.</p> <p>IW P4: Require the submission of an Ecological Impact Assessment, where deemed necessary (and where necessary an Appropriate Assessment where in relation to Natura 2000 sites), including bat and other surveys, for development proposals along rivers, streams and canal corridors and areas of ecological importance.</p> <p>IW P5: Maintain a biodiversity protection (buffer) zone of not less than 10 metres from the top bank of all watercourses in the County, with the full extent of the protection zone to be determined on a case by case basis by the Planning Authority, based on site specific characteristics and sensitivities and consultation with Inland Fisheries Ireland.</p> <p>IW P6: Ensure that lighting proposals along water courses, rivers, streams and canal corridors, are not in conflict with bat species, and to ensure that expert advice is sought on such lighting proposals in order to mitigate the impacts of lighting on bats and other species.</p> <p>IW P7: Require that runoff from a development area will not result in deterioration of downstream watercourses or habitats, and that pollution generated by a development is treated within the developed area prior to discharge to local watercourses.</p> <p>IW P8: Ensure the protection, improvement or restoration of riverine floodplains and to promote strategic measures to accommodate flooding at appropriate locations, to protect ground and surface water quality and build resilience to climate change.</p> <p>IW P9: Ensure that development proposals do not adversely affect groundwater resources and groundwater dependent habitats and species.</p> <p>IW P10: Consult with Inland Fisheries Ireland, as appropriate, in relation to any works or development that could have potential impacts on watercourses, aquatic habitats, species, and associated riparian habitats, and to take full account of any Guidance documents issued by Inland Fisheries Ireland in this regard, including 'Planning for Watercourses in the Urban Environment, A Guide to the Protection of Watercourses through the use of Buffer Zones, Sustainable Drainage Systems, Instream Rehabilitation, Climate/Flood Risk and Recreational Planning' (2020).</p> <p>IW P11: Promote the use of watercourses for the pursuit of angling, through working with Inland Fisheries Ireland to improve water quality, to improve fish stocks and to provide safe access to fishing, where appropriate, taking full account of the requirements of the Habitats Directive and other relevant legislation.</p> <p>IW P12: Promote the natural, historical and amenity value of the County's watercourses, including public access where feasible and appropriate, in partnership with the National Parks and Wildlife Services, Waterways Ireland, Inland Fisheries Ireland, and other relevant stakeholders, while maintaining the watercourses free from inappropriate development.</p> <p>WT P1: Protect, manage, and enhance wetlands in the County, and resist development that would remove, fragment, or degrade wetlands.</p> <p>WT P2: Protect the biodiversity and flood protection value of wetlands and floodplains in the County.</p> <p>WT P3: Ensure that ecological impact assessment is carried out, where appropriate, for development proposals involving, drainage, reclamation, or infill of wetland areas.</p> <p>WT P4: To promote voluntary construction of new wet lands where deemed in accordance with proper planning and environmental considerations and where same maybe facilitated by ecological schemes.</p> <p>IW O1: Carry out a Wetlands Survey of the County during the lifetime of this Plan.</p> <p>IS P1: Prevent the spread of invasive alien species in the County, and to require landowners and developers to adhere to best practice guidance in relation to the containment and control of invasive alien species, including Invasive Species Ireland guidelines (see www.invasivespeciesireland.com)</p> <p>TII (2020) The Management of Invasive Alien Plant Species on National Roads – Standard GE-ENV-01104 https://www.tiipublications.ie/library/GE-ENV-01104-01.pdf</p> <p>TII (2020) The Management of Invasive Alien Plant Species on National Roads – Technical Guidance https://www.tiipublications.ie/library/GE-ENV-01105-01.pdf</p> <p>IS P2: To require, as appropriate, development proposals to address the presence or absence of invasive alien species, and to require the preparation of an Invasive Species Management Plan for their eradication and/or containment and control where identified on a site or in the vicinity of a site, in accordance with the requirements of the European Communities (Birds and Natural Habitats) Regulations 2011-2015.</p> <p>IS P3: Prohibit invasive alien plant species from inclusion in landscape design proposals and to require the use of native local plant species.</p> <p>IS O1: Prepare an Invasive Alien Species Management Strategy, in conjunction with a Hedge and Road Verge Maintenance Strategy, during the</p>

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
			<p>lifetime of this Plan.</p> <p>IS O2: To raise awareness of the potential threat of invasive alien species in the County, and to inform the public of appropriate management measures for the prevention, containment, and control of invasive alien species.</p> <p>IS O3: Undertake a programme of mapping of invasive alien species in the County and initiate control programs with relevant stakeholders and landowners on the prevention, containment and control of invasive alien species.</p> <p>Agriculture – Policies</p> <p>AG P2: Support and facilitate changes to farming practices that will adapt to climate change and a more sustainable sector, that encourage biodiversity and contribute to more sustainable methods of production.</p> <p>AG P3: Encourage the development of environmentally sustainable agricultural practices, to ensure that development does not impinge on the visual amenity of the countryside and that watercourses, wildlife habitats and areas of ecological importance are protected from the threat of pollution.</p> <p>AG P4: Ensure that all agricultural activities comply with legislation on water quality, such as the Phosphorous Regulations, Water Framework Directive and Nitrates Directive. In relation to intensive agricultural installations (i.e. intensive pig and poultry farming), recent EPA Guidance (2021) on Assessment of the Impact of Ammonia and Nitrogen on Natura 2000 sites from intensive agriculture installations should be consulted when carrying out project assessment.</p> <p>Forestry – Policies</p> <p>FR P1: Encourage the development of a well-managed sustainable forestry sector with a diversity of species including native hardwood species, which maximises its contribution to the economic and social wellbeing of the county and which is:</p> <ul style="list-style-type: none"> - compatible with the protection of the environment including the avoidance of likely significant effects on Natura 2000 sites. - which does not detract substantially from landscape and visual amenity, protected or scenic views, , built heritage, archaeological / geological features, or cause pollution or degradation to wildlife habitats, natural waters or areas of ecological importance; - which does not obstruct existing public rights of way, traditional walking routes or recreational and tourism amenities and which is planted, managed and harvested in accordance with the Forest Service Guidelines for Landscape, Forest Harvesting and Environmental, Archaeology, Biodiversity, Water Quality and requirements regarding the protection of the Freshwater Pearl Mussel. <p>FR P3: Promote the avoidance of deforestation or commercial afforestation within Natura 2000 sites unless directly relating to the management of the site for its qualifying interests.</p> <p>Fisheries and Aquaculture - Policies</p> <p>FA P5: Require proposed services / facilities to support fisheries along water courses to undertake the required level of Appropriate Assessment in accordance with appropriate environmental assessments including Habitats Directive Assessment and planning legislation.</p> <p>FA P6: Ensure that the development of services / facilities along watercourses will seek to ensure the protection of water quality and will also be subject to, and consistent with, the requirements of the Water Framework Directive and the relevant South Eastern River Basin Management Plan.</p> <p>Extractive Industry - Aggregates (stone, sand and gravel) and Mineral Resources - Policies</p> <p>EI P6: To ensure that development for aggregates / mineral extraction, processing and associated processes does not significantly impact the following:</p> <ul style="list-style-type: none"> - Existing and proposed European Sites; - Other areas of importance for the conservation of flora and fauna; - Areas of significant archaeological potential including recorded monuments; - Important aquifers and sensitive groundwater resources; - Sensitive landscapes; and - Established rights of way. <p>EI O1: Support RSES policy for the adequate supply of aggregate and mineral resources to ensure the continued growth of the county and region and to ensure that all quarrying activities and projects associated with extractive industry comply with all relevant Planning and Environmental Legislation.</p> <p>EI O2: Consult with the Geological Survey of Ireland (GSI) with regard to any developments likely to have an impact on Sites of Geological Importance listed in Chapter 10 of this Plan.</p> <p>Laois County Development Plan</p> <p>CS 20 Promote higher densities at appropriate locations, owing to position on public transport network where appropriate to do so having regard to Guidelines for Planning Authorities on Sustainable Residential Developments in Urban Areas (DEHLG, 2009) and ensure that any plan or project associated with the provision of new housing is subject to Appropriate Assessment Screening in compliance with the Habitats Directive, and subsequent assessment as required;</p> <p>CA ST 1 Protect and enhance the County's floodplains subject to flooding as "green infrastructure" where appropriate and subject to compliance with the Habitats Directive;</p> <p>RH 4 Provide for sustainable rural housing in the county in accordance with the Sustainable Rural Housing: Guidelines for Planning Authorities (DEHLG, 2005) , EPA Code of Practice: Wastewater Treatment Systems for Single Houses (2009) and ensure that any plan or project associated with the provision of new housing is subject to Appropriate Assessment Screening in compliance with the Habitats Directive, and subsequent assessment as required;</p> <p>NRPO 4 Prepare an Open Space Plan for the County having regard to the town parks, riverside walks and other amenity spaces and resources and ensure that any plan or project associated with open space planning or tourism is subject to Appropriate Assessment Screening in compliance with the</p>

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			<p>Habitats Directive, and subsequent assessment as required</p> <p>NRPO 7 Investigate the feasibility of the following specific recreation and leisure projects subject to the Habitats and Birds Directives:</p> <ul style="list-style-type: none"> • Support the ongoing development of an athletic track, including provision of dressing rooms and tartan resurface in Portlaoise; • Investigate and facilitate where appropriate the provision of strategic greenways throughout the county. • Facilitate where appropriate the provision of additional handball facilities throughout the county. <p>NRPO 13 Facilitate the development of greenways / blueways along the main waterways through the county – Grand Canal, River Barrow and River Nore and their tributaries subject to the Habitats and Birds Directives and the proper planning and development of the areas</p> <p>ABT 2 Support in principle and investigate the feasibility of, subject to compliance with the Habitats and Birds Directive, developing and marketing off-road Slieve Bloom Mountain Biking Trail by Coillte, Mountmellick –Portlaoise – Abbeyleix Greenway (and potential extensions onto Portarlinton to connect with the Offaly Greenway network) and Durrow Green Network Cycle Trail in co-operation with relevant stakeholders including Durrow Development Forum.</p> <p>ABT 3 Develop on-road cycle trails in the Slieve Blooms along existing lightly-trafficked roads in partnership with cycling clubs, Offaly County Council, Laois Sports Partnership, Laois Partnership Company and the National Trails Office, subject to compliance with the Habitats and Birds Directive</p> <p>ABT 6 Promote and investigate the feasibility of, subject to compliance with the Habitats and Birds Directives, sustainable developing and improving of facilities and infrastructure supporting water based tourism activities, (including shore side interpretive centres and jetties). Development proposals outside settlement centres will be required to demonstrate a need to locate in the area and will be required to ensure that the ecological integrity and water quality of the river or lake, including lakeshore and riparian habitats, is not adversely affected by the development</p> <p>TM 17 Where relevant, the Council and those receiving permission for development under the Plan shall seek to manage any increase in visitor numbers and/or any change in visitor behaviour in order to avoid significant effects, including loss of habitat and disturbance. Management measures may include ensuring that new projects and activities are a suitable distance from ecological sensitivities. Visitor/Habitat Management Plans will be required for proposed projects as relevant and appropriate</p> <p>CH 2 Take responsibility for the development of a more sustainable tourism industry which minimises adverse impacts on local communities, the built heritage, landscapes, habitats and species; leaving them undiminished as a resource for future generations, while supporting social and economic prosperity</p> <p>Support the development and marketing of the Barrow Blueway and facilitate related commercial opportunities in Vicarstown, Portarlinton, Graiguicullen and Portlaoise, subject to compliance with the Habitats Directive</p> <p>NH 2 Support the development and marketing of the Erkina River Blueway in association with all relevant stakeholders and facilitate related commercial opportunities in the area, subject to compliance with the Habitats and Birds Directive</p> <p>NH 3 Promote and facilitate the continued development of the Slieve Bloom Mountains bike trail as a key tourism asset for the county and as part of the tourism offer on the Slieve Bloom Mountains, in conjunction with Offaly County Council.</p> <p>In addition, it is the Council policy to (i) promote the further development of walking trails on the mountains, (ii) connect to and develop Clonaslee, Camross, Coolrain and Rosenalis as a service hubs for the area and (iii) promote and facilitate links to / from other existing and proposed greenways, blueways and peatways (iv) Support the development of visitor centre facilities in Baunreagh, , subject to compliance with the Habitats and Birds Directive</p> <p>RL 2 Facilitate the development of agriculture while ensuring that natural waters, wildlife habitats and conservation areas are protected from pollution.</p> <p>RL 7 Encourage, subject to compliance with the Habitats and Birds Directives, access to forestry including private forestry for amenity and educational purposes including the provision of walking routes, cycling routes, mountain biking routes, mountain trails, nature trails and orienteering;</p> <p>RL 14 Support in principle the expansion of the aggregates and concrete products industry which offers opportunity for employment and economic development generally subject to environmental , traffic and planning considerations and ensure that any plan or project associated with extractive industry is subject to Appropriate assessment screening in compliance with the Habitats Directive and subsequent assessment as required , applicants for planning permission shall have regard to the GSI-ICF Quarrying Guidelines;</p> <p>TRANS 45 Investigate the feasibility of developing a National Scale Centre for Off-Road Mountain-Biking in the Slieve Bloom Mountains, subject to planning permission & the Habitats' and Birds Directives;</p> <p>TRANS 46 Continue to audit, maintain and promote walking trails and walking events in the Slieve Blooms, subject to planning permission & the Habitats' and Birds Directives;</p> <p>TRANS 47 Designate the following graded on-road cycling trails in the Slieve Blooms; install related signage and improve road surfaces along these trails, as resources allow; produce trail maps and market the trails , subject to the Habitats' and Birds Directives; H1. Cut Cycle Climb; H2. Wolftrap Cycle Climb; H3. Glendine Cycle Climb; H4. Mountrath-Clonaslee Trail; H5. Camross Coolrain Trail; H6. Castletown Mountrath Trail</p> <p>TRANS 51 Establish a new Woodenbridge Walking Trail linking Durrow and Ballacolla, subject to the Habitats' Directive</p> <p>BNH 23 Encourage, pursuant to Article 10 of the Habitats Directive, the management of features of the landscape, such as traditional field boundaries and laneways, important for the ecological coherence of the Natura 2000 network and essential for the migration, dispersal and genetic exchange of wild species.</p> <p>LCA 17 Maintain the rivers throughout the county whilst ensuring that all works are carried out subject to appropriate environmental assessment in accordance with Article 6 of the Habitats Directive, in respect of any proposed development likely to have an impact on a designated natural heritage site, site proposed to be designated and any additional sites that may be designated during the period of this Plan</p> <p>LCA 18 Preserve riverside historic features and their landscape settings. Conserve valuable habitats focused on and around river corridors and</p>

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
			<p>estuaries including European and national designations</p> <p>LCA 19 Recognise the potential constraints on development created by river flood plains and the value of these flood plains as increasingly rare habitats</p> <p>LCA 24 Conserve valuable habitats including any European and national designations</p> <p>Policy Objectives for Biodiversity and Designated Sites</p> <p>BNH 1 Protect, conserve, and seek to enhance the county's biodiversity and ecological connectivity</p> <p>BNH 2 Conserve and protect habitats and species listed in the Annexes of the EU Habitats Directive (92/43/EEC) (as amended) and the Birds Directive (2009/147/EC), the Wildlife Acts 1976 and 2010 (as amended) and the Flora Protection Orders.</p> <p>BNH 3 Support and co-operate with statutory authorities and others in support of measures taken to manage proposed or designated sites in order to achieve their conservation objectives and maintain the favourable conservation status and conservation value of Sites under National and European legislation and International Agreements and maintain and /develop linkages between them where feasible.</p> <p>BNH 4 Protect and maintain the conservation value of all existing and future Natural Heritage Areas, Nature Reserves, Ramsar Sites, Wildfowl Sanctuaries and Biogenetic Reserves in the county.</p> <p>BNH 5 Projects giving rise to significant cumulative, direct, indirect or secondary impacts on Natura 2000 sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall not be permitted on the basis of this Plan (either individually or in combination with other plans or projects)⁶⁵. Screening for AAs and AAs undertaken shall take into account invasive species as relevant.</p> <p>BNH 6 Assess, in accordance with the relevant legislation, all proposed developments which are likely to have a significant effect (directly or through indirect or cumulative impact) on designated natural heritage sites, sites proposed for designation and protected species.</p> <p>BNH 7 Protect Natural Heritage Areas (NHA) from developments that would adversely affect their special interests.</p> <p>BNH 8 Recognise and protect the significant geological value of sites in County Laois and safeguard these sites, in consultation with the Geological Survey of Ireland and in accordance with the National Heritage Plan and "Geological Heritage Guidelines for the Extractive Industry".</p> <p>BNH 9 Engage with the National Parks and Wildlife Service to ensure Integrated Management Plans are prepared for all Natura sites (or parts thereof) and ensure that plans are fully integrated with the County Development Plan and other plans and programmes, with the intention that such plans are practical, achievable and sustainable and have regard to all relevant ecological, cultural, social and economic considerations and with special regard to local communities.</p> <p>BNH 10 Support the objectives of the All Ireland Pollinator Plan 2015-2020 by encouraging the planting of pollinator friendly trees and plants within grass verges along public roads and existing and future greenways, new hedgerows, public parks and public open spaces in towns and villages, including part of mixed use and residential developments</p> <p>BNH 11 Support measures to protect Swift population such as the creation of Swift nest cavities in all new commercial and public buildings (schools/libraries, etc).</p> <p>Policy Objectives for Trees, Woodlands and Hedgerows</p> <p>BNH 25 Undertake a study within the lifetime of the Plan and for all Local Area Plans to document and map significant trees and groups of trees that require preservation and prepare Tree Preservation Orders for individual trees, groups of trees or woodland areas where expedient and in the interests of visual amenity, biodiversity and the environment.</p> <p>BNH 26 Protect individual trees, groups of trees and woodland in the interests of landscape conservation (including townscapes) and nature conservation as part of the development management process</p> <p>BNH 27 Protect existing hedgerows, particularly of historical and archaeological importance of townland boundaries, from unnecessary removal in order to preserve the rural character of the countryside and promote biodiversity</p> <p>BNH 28 Ensure that hedgerow removal to facilitate development is kept to an absolute minimum and, where unavoidable, a requirement for mitigation planting will be required comprising a hedge of similar length and species composition to the original, established as close as is practicable to the original and where possible linking in to existing adjacent hedges. Native plants of a local provenance should be used for any such planting</p> <p>BNH 29 Promote and develop urban forests in parkland and street trees in urban settlements to enhance public realm and increase tree canopy coverage and diversity.</p> <p>BNH 30 Ensure that hedgerow and mature tree removal to facilitate development is kept to an absolute minimum and, where unavoidable, a requirement for mitigation planting will be required comprising a hedge of similar length and species composition to the original, established as close as is practicable to the original and where possible linking in to existing adjacent hedges. Native plants of a local provenance should be used for any such planting</p> <p>Policy Objectives for Waterways and Wetlands</p> <p>BNH 31 Protect waterbodies and watercourses from inappropriate development, to ensure they are retained for their biodiversity and flood protection values and to conserve and enhance where possible, the wildlife habitats of the County's rivers and riparian zones, lakes, canals and streams which occur outside of designated areas to provide a network of habitats and biodiversity corridors throughout the county.</p>

⁶⁵ Except as provided for in Article 6(4) of the Habitats Directive, viz. There must be: a) no alternative solution available, b) imperative reasons of overriding public interest for the project to proceed; and c) Adequate compensatory measures in place.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
			<p>BNH 32 Promote and develop the Barrow Blueway initiative and work with State Agencies, landowners, local communities and other relevant groups to protect and manage inland waters, river corridors and their floodplains from degradation and damage, and to recognise and promote them as natural assets of the urban and rural environment</p> <p>BNH 33 Promote and facilitate the development of the Grand Canal for cycling, walking and nature study in conjunction with the relevant bodies including Waterways Ireland to enhance its amenity. Investigate the possibility of developing long distance walking routes/Greenway, within the lifetime of the Plan, along the disused Mountmellick Grand Canal Line.</p> <p>BNH 34 Protect riparian corridors by reserving land along their banks for ecological corridors and maintain them free from inappropriate development. Where developments are proposed adjacent to waterways in previously undeveloped areas, the Planning Authority will require a general setback distance of a minimum of 10 metres from the waterways edge, subject to site-specific characteristics and the nature and design of the development. In previously developed areas, for example, within town centres, this general setback distance is likely to be reduced and should be part of any pre-planning consultations with the Council.</p> <p>BNH 35 Require that development along rivers set aside lands for pedestrian routes and cycleways that could link to the broader area and established settlements in the area.</p> <p>BNH 36 Provide for public access to waterways where feasible and appropriate, in partnership with the National Parks and Wildlife Service (NPWS), Waterways Ireland and other relevant stakeholders, whilst maintaining them free from inappropriate development, subject to Ecological Impact Assessment and Appropriate Assessment, as appropriate.</p> <p>BNH 37 Protect the Nore Pearl Mussel through the measures set out in the Freshwater Pearl Mussel Nore Sub-Basin Management Plan (2009).</p> <p>BNH 38 Protect the migration of fish in the River Barrow Nore SAC from high risk barriers such as weirs and bridge sills.</p> <p>Policy Objectives for Peatlands</p> <p>BNH 40 The County Development will continue to support the objectives of the Strategic Framework for the Future use of Peatlands which identifies new potential future land uses and also seek to progress opportunities under Just Transition Fund.</p> <p>BNH 41 Protect the county's designated peatland areas and landscapes and to conserve and manage their ecological, archaeological, cultural, and educational heritage by promoting high environmental standards in conjunction with Bord na Mona, NPWS, IPPC, NGO's and local communities.</p> <p>BNH 42 Work with relevant agencies such as Eastern and Midland Regional Assembly, Bord na Mona, NPWS, Coillte and adjacent Local Authorities to prepare an integrated afteruse framework and management plans for the peatlands and related infrastructure,</p> <p>BNH 43 Support the preparation of a Sustainable Holistic Management Plan for the future use of the Industrial Peatlands in the County, which recognises the role of peatlands in carbon sequestration.</p> <p>BNH 44 Support the designation of a National Park for the peatlands area in the Midlands in conjunction with adjoining Local Authorities.</p> <p>BNH 45 Undertake a feasibility study to identify peatways, where appropriate and examine the tourist potential of same such as a peatway link from Portarlinton to the Grand Canal and River Barrow Greenway.</p> <p>BNH 46 Support relevant agencies to provide for the future sustainable and environmentally sensitive use of large industrial peatlands at Cuil Na Mona.</p> <p>Light Pollution Policy Objectives</p> <p>ES 49 Ensure that external lighting and lighting schemes are designed so that light spillage is minimised, thereby limiting light pollution into the surrounding environment and protecting the amenities of nearby properties and wildlife, including protected species</p> <p>ES 50 Encourage the maintenance of dark skies in rural areas and limit light pollution in urban and rural areas</p> <p>ES 51 Encourage the maintenance of dark skies in rural areas and limit light pollution in urban and rural areas</p> <p>Policy Objectives for Green Infrastructure</p> <p>BNH 19 Ensure that areas and networks of Green Infrastructure are identified, protected, enhanced, managed and created to provide a wide range of environmental, social and economic benefits to communities.</p> <p>BNH 20 Develop and implement a Green Infrastructure Strategy for Laois in partnership with key stakeholders and the public which reflects a long-term perspective, including the need to adapt to climate change. Ensure the Green Infrastructure Strategy for Laois protects existing Green Infrastructure resources and plans for future Green Infrastructure provision</p> <p>BNH 21 Require all Local Area Plans and Master Plans to protect, enhance, provide and manage Green Infrastructure in an integrated and coherent manner. Set targets for the provision of Green Infrastructure elements such as trees and green roofs as part of the preparation of Local Area Plans.</p> <p>BNH 22 Promote a network of paths and cycle tracks to enhance accessibility to the Green Infrastructure network, while ensuring that the design and operation of the routes respect and where possible enhances the ecological potential of each site</p> <p>BNH 23 Encourage, pursuant to Article 10 of the Habitats Directive, the management of features of the landscape, such as traditional field boundaries and laneways, important for the ecological coherence of the Natura 2000 network and essential for the migration, dispersal and genetic exchange of wild species.</p> <p>BNH 24 To identify and map Green Infrastructure assets and sites of local biodiversity value over the lifetime of the Plan.</p>

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Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
Population and human health	<ul style="list-style-type: none"> • Potential adverse effects arising from flood events. • Potential interactions if effects arising from environmental vectors. 	<p>Also refer to measures under other environmental components including Soil, Water and Air and Climatic Factors.</p>	<p>Also refer to measures under other environmental components including Soil, Water and Air and Climatic Factors.</p> <p>Carlow County Development Plan Major Accident Directive – Policies MA P1: Have regard to the provisions of the Major Accidents Directive (European Council Directive 2012/18/EU) and any regulations under any enactment giving effect to that Directive, and the technical advice of the Health and Safety Authority (HSA) in relation to any identified SEVESO sites in the county during the life of this Plan. MA P2: Have regard to the provisions of the Major Accident Directive (EC Directive 2012/18/EU), including any regulations under any enactment giving effect to that Directive, and to the technical advice of the Health and Safety Authority (HSA), in relation to any identified SEVESO sites in the county during the lifetime of this Plan and to the control of development with respect to:</p> <ul style="list-style-type: none"> • The siting of Major Accident Hazard sites. • The modification of an existing Major Accident Hazard site. • Specified development in the vicinity of a Major Accident Hazard site. <p>Laois County Development Plan COMAH Policy Objectives ES 55 Ensure that any COMAH sites in County Laois are managed in accordance with the provisions of the Seveso III Directive ES 56 Have regard to the following in assessing applications for new developments (including extensions);</p> <ul style="list-style-type: none"> • The Major Accidents Directive Seveso III Directive (2012/18/EU); • The potential effects on public health and safety; • The need to ensure adequate distances between such developments and residential areas, areas of public use and any areas of sensitivity <p>ES 57 Any proposals for developments within the vicinity of major accident hazard sites shall have cognisance of the required minimum separation distances as required by the Major Accidents Directive. In this regard all future proposals of this nature shall be forwarded to the Health and Safety Authority</p>
Soil	<ul style="list-style-type: none"> • Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of development on contaminated lands. • Potential for riverbank erosion. 	<p>Also refer to measures under other environmental components including Water.</p>	<p>Also refer to measures under other environmental components including Water.</p> <p>Carlow County Development Plan Geological Heritage - Policies It is the policy of the Council to: GH P1: Protect and enhance the geological and geomorphological heritage of the County. GH P2: Protect from inappropriate development the list of County Geological Sites (CGS) included in this Plan. GH P3: Consult with the Geological Survey of Ireland on development proposals which are likely to impact on County Geological Sites or involve significant ground excavations.</p> <p>Geological Heritage - Objectives It an objective of the Council to: GH O1: Protect geological Natural Heritage Areas (NHAs) as they become designated during the lifetime of this Plan..</p> <p>Extractive Industry - Aggregates (stone, sand and gravel) and Mineral Resources - Policies EI O2: Consult with the Geological Survey of Ireland (GSI) with regard to any developments likely to have an impact on Sites of Geological Importance listed in Chapter 10 of this Plan.</p> <p>Section 16.11.6 Soil Protection, Contamination and Remediation Where appropriate adequate soil protection measures shall be outlined in planning applications submitted. Adequate and appropriate investigations shall be carried out into the nature and extent of any soil and groundwater contamination and the risks associated with site development work, where brownfield development is proposed. The EPA's publication Code of Practice: Environmental Risk Assessment for Unregulated Waste Disposal Sites (2007) shall be taken into account as relevant by proposals for development within or adjacent to old landfill sites. All undeveloped, contaminated sites shall be remediated to internationally accepted standards prior to redevelopment. All applications shall be accompanied by a report from a qualified, expert consultant on remediation incorporating international best practice and expertise on innovative ecological restoration techniques including specialist planting and green initiatives that create aesthetically improved sites, healthy environments and contribute to the provision of new green open spaces as integral parts of newly created areas. Treatment/management of any contaminated material shall comply as appropriate with the Waste Management Act 1996 (waste licence, waste facility permit), as amended, and under the EPA Act 1992 (Industrial Emissions licensing, in particular the First Schedule, Class 11 Waste), as amended. These measures will ensure that contaminated material will be managed in a manner that removes any risk to human health and ensures that the end use will be compatible with any risk. Prior to the grant of approval on contaminated sites, developers will be required to carry out a full contaminated land risk assessment to demonstrate:</p> <ul style="list-style-type: none"> • How the proposed land uses will be compatible with the protection of health and safety (including the durability of structures and services) - during both construction and occupation; and • How any contaminated soil or water encountered will be appropriately dealt with.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
			<p>Section 16.11.7 Peatlands Developments sited on peatlands have the potential to increase overall carbon losses, potentially undermining expected carbon savings (in the case of renewable energy developments) and damaging rare habitats of European importance. When developing project proposals for developments on peatlands the following assessments maybe required:</p> <ul style="list-style-type: none"> • Peatland stability; • Carbon emissions balance; and • Hydrology and Ecology. <p>Where relevant the Council will support the implementation of recommendations contained in the National Peatlands Strategy 2015.</p> <p>Laois County Development Plan ES 32 Control intensive agriculture development e.g. intensive pig unit productions in order to minimise their impact on soil and ground water quality. Developments involving intensive pig units shall be required to show compliance with the following requirements:</p> <ol style="list-style-type: none"> The developer shall demonstrate that all lands available are suitable for landspreading of manures and have satisfactory Nutrient Management Plans for such lands Satisfactory arrangements for storage, management and spreading of slurries are provided. <p>Soil Quality Policy Objectives ES 52 Ensure good soil quality throughout the county by requiring developments of a certain nature (as specified in the relevant environmental legislation) to carry out assessments of the impact of the development on soil quality ES 53 Recognise the significant impacts of land use, land use change and sludge generation and treatment in relation to carbon loss/stocks and recognise the function of soil assessment and management, carbon sinks, carbon sequestration and restoration of degraded lands in plan led settlement and development strategies</p> <p>Policy Objectives for Geology GEO 1 Work with stakeholders to protect, preserve, enhance, maintain, manage, conserve, recognise and, where appropriate, restore the character conservation value and integrity of these sites for their amenity, scientific, heritage and historic values (including County Geological Sites listed in Table 28, proposed NHA's, areas near site and areas of geomorphological interest GEO 2 Protect geological NHAs as they become designated and notified to the Local Authority, during the lifetime of the Plan; GEO 3 Promote and encourage, where practicable and when not in conflict with ownership rights, access to geological and geomorphological features GEO 4 Encourage and facilitate the development of geo-tourism by conserving and managing geological resources, and by the development of a Rock Trail (named), Geoparks or other similar geo-tourism initiatives</p> <p>Policy Objectives for Eskers GEO 5 Protect, preserve and conserve the landscape and natural heritage and geo-diversity values of esker systems from inappropriate development. Ensure that any plan or project affecting eskers are adequately assessed with regard to their potential impact on the environment GEO 6 Assess applications for quarrying activity and gravel extraction and other development in proximity to eskers, with respect to their landscape importance or amenity value and the need to conserve them free from inappropriate development and to conserve their environmental character values and the extent to which proposals would damage these qualities.</p>
Water	<ul style="list-style-type: none"> • Potential adverse effects upon the status of water bodies and entries to the WFD Register of Protected Areas (ecological and human value), arising from changes in quality, flow and/or morphology. • Increase in flood risk and associated effects associated with flood events. 	<p>Also refer to measures under other environmental components including Soil and Material Assets.</p> <p>WW. P1: Facilitate and support Uisce Éireann in the delivery of public wastewater services in Carlow-Graiguecullen to serve the needs of the existing and future population of the Plan area, subject to compliance with normal planning and environmental criteria and the standards and requirements set out in EU and national legislation and guidance.</p> <p>WW. P2: Encourage the decommissioning of existing on-site private wastewater treatment systems and the connection of properties to the public wastewater network in Carlow-Graiguecullen wherever feasible, to minimise risk of groundwater pollution and subject to connection agreements with Uisce Eireann and compliance with normal planning and environmental criteria and the standards and requirements set out in EU and national legislation and guidance. The provision of</p>	<p>Also refer to measures under other environmental components including Soil and Material Assets.</p> <p>Carlow County Development Plan Surface Water Drainage / SuDS- Policies and Objectives SW P1: Ensure adequate surface water drainage systems are in place which meet the requirements of the Water Framework Directive and the River Basin Management Plan. SW P2: Ensure as an alternative to underground tanks and piped outfalls to watercourses, that all development proposals incorporate Sustainable Drainage Systems and to promote the use of green infrastructure e.g. green roofs, planting and green spaces for surface water retention purposes, as an integrated part of SuDS and maximise the multi-functional potential of these systems including benefits for biodiversity and amenity value wherever possible. SW P3: Require appropriate maintenance of surface water drainage infrastructure to avoid flood risk. SW P4: To require all new developments, to provide for separated drainage systems. SW P5: Seek to minimise in as far as is practical the discharge of additional and existing surface water to combined (foul and surface water) sewers (in existing combined sewer serviced areas) in order to maximise the capacity of existing collection systems for foul water. SW P6: Require all new developments to provide a separate foul and surface water drainage system and to incorporate sustainable urban drainage systems where appropriate / viable in new development and the public realm. SW O1: Require all development (including extensions to existing development) proposals to incorporate design criteria and SuDS measures in accordance with Carlow County Council SuDS Policy in order to reduce the potential impact of existing and predicted flood risks and to improve biodiversity and amenity value.</p> <p>Water Quality- Policies and Objectives WQ P1: Support the implementation of the relevant recommendations and measures as outlined in the River Basin Management Plan 2018-2021, and any associated Programme of Measures, or any such plan that may supersede same during the lifetime of this Plan. Development proposals shall not have an unacceptable impact on the water environment, including headwaters, surface waters, groundwater quality and quantity, river corridors and associated</p>

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		<p>individual wastewater treatment systems within the Plan boundary will be strongly discouraged to minimise the risk of groundwater pollution.</p> <p>WW. P3: Ensure that development proposals adhere to the standards and requirements of Uisce Éireann in relation to connections to the public wastewater network, and to encourage all developers to consult with Uisce Éireann prior to submitting a planning application in relation to connection agreement/self-lay agreement requirements.</p> <p>WW. O1: Support wastewater treatment infrastructure investment and provision by Uisce Éireann in Carlow-Graiguecullen, including any maintenance works and planned upgrades for Mortarstown WWTP and the associated wastewater network serving the joint urban area, including the safeguarding of existing such infrastructure corridors, in order to ensure that zoned lands are adequately serviced over the period of the Plan and in accordance with the Core Strategies of Carlow and Laois County Councils.</p> <p>WW. O2: Implement, in conjunction with Uisce Éireann, the relevant recommendations set out in the EPA (2022) publication 'Urban Waste Water Treatment in 2021' and any subsequent update to this document.</p> <p>SG. P1: Maintain and enhance the existing surface water drainage systems in Carlow-Graiguecullen and to protect surface and ground water quality in accordance with the Water Framework Directive.</p> <p>SG. P2: Require the use of Sustainable Urban Drainage Systems (SuDS) within development proposals and infrastructure projects, in accordance with the DHLGH Nature-based Solutions to the Management of Rainwater and Surface Water Runoff in Urban Areas – Best Practice Interim Guidance Document, 2022' (and any subsequent amendments or revisions to the document), Carlow County Council's SuDS Policy, and Laois County Council's Storm Water Management Policy as appropriate, in order to reduce flood risk, improve water quality and enhance biodiversity and amenity in the joint urban area.</p> <p>SG. P3: Ensure that all development proposals maintain surface water discharge at greenfield run-off rate, including an allowance for climate change.</p> <p>SG. O1: Maintain, improve, and enhance the environmental and ecological quality of surface waters and groundwater in Carlow-Graiguecullen in conjunction with the Environmental Protection Agency (EPA) and in</p>	<p>habitats. The Council will support the application and implementation of a catchment planning and management approach to development and conservation. Site specific assessments to determine localised pressures / impacts may be required as part of the development management process.</p> <p>WQ P2: Promote and comply with the environmental standards and objectives established for (i) bodies of surface water, by the European Communities (Surface Water) Regulations 2009 and (ii) groundwater, by the European Communities (Groundwater) Regulations 2010 or as may be amended during the period of this Plan.</p> <p>WQ P3: Ensure that the Water Framework Directive, the River Basin Management Plan and any subsequent Water Management Plans or statutory guidance are fully considered throughout the planning process.</p> <p>WQ P4: Encourage the use of catchment sensitive farming practices in order to meet Water Framework Directive targets and comply with the RBMP.</p> <p>WQ O1: Ensure through the implementation of the River Basin Management Plan, and any associated legislation, the protection and improvement of all drinking water, surface water and ground waters throughout the County.</p> <p>WQ O2: Work with the Local Authority Waters Programme and other relevant State agencies to develop and implement the River Basin Management Plan 2018-2021, and any updates subject to compliance with the Habitats Directive.</p> <p>WQ O3: Implement the Blue Dot Catchment network programme under the RBMP to protect and maintain the excellent 'High' status water bodies.</p> <p>WQ P4: Promote and support locally led community initiatives aimed at improving local water quality standards subject to compliance with the Habitats Directive.</p> <p>Flood Risk Management – Policies and Objectives</p> <p>FR P1: Support, in co-operation with the OPW the implementation of the EU Flood Risk Directive (2007/60/EC) on the assessment and management of flood risks, the Flood Risk Regulations (SI No. 122 of 2010) and relevant outputs of the South Eastern Catchment and Flood Risk Assessment and Management Study.</p> <p>FR P2: Carry out flood risk assessment for the purpose of regulating, restricting and controlling development in areas at risk of flooding and to minimise the level of flood risk to people, business, infrastructure and the environment through the identification and management of existing and potential future flood risk.</p> <p>FR P3: Ensure that all development proposals comply with the requirements of the Planning System and Flood Risk Management – Guidelines for Planning Authorities (DEHLG and OPW, 2009) and Circular PL2/2014 (or any amendments thereto), in particular through the application of the sequential approach and the Development Management Justification Test.</p> <p>FR P4: Require the submission of a Site-Specific Flood Risk Assessment (FRA) in areas at risk of flooding. The assessment shall be carried out by a suitably qualified and indemnified professional, shall be appropriate to the scale and nature of the risk to the proposed development and shall consider all sources of flooding. The FRA shall be prepared in accordance with the Planning System and Flood Risk Management - Guidelines for Planning Authorities and shall address climate change, residual risk, avoidance of contamination of water sources and any proposed site-specific flood management measures.</p> <p>FR P5: To protect and enhance the county's floodplains and wetlands as "green infrastructure" which provides space for storage and conveyance of floodwater, enabling flood risk to be more effectively managed. Riparian buffer zones shall have regard to Policies contained in Section 10.7 of this Plan.</p> <p>FR P6: To ensure each flood risk management activity is examined to determine actions required to embed and provide for effective climate change adaptation as set out in the OPW Climate Change Sectoral Adaptation Plan Flood Risk Management.</p> <p>FR O1: Ensure that flood risk management is incorporated into the preparation of future statutory local area plans in accordance with the requirements of the Planning System and Flood Risk Management, Guidelines for Planning Authorities (DEHLG and OPW, 2009) and Circular PL2/2014, and any future updates of these guidelines.</p> <p>FR O2: Facilitate the provision of new, or the augmentation of existing flood defences and protective measures, where necessary including natural flood management measures where deemed appropriate and to support the implementation of proposed flood schemes while also seeking to ensure zoning or development proposals support and do not impede or prevent the progression of these schemes subject to compliance with the requirements of the EU Habitats Directive, the protection of natural and built heritage and visual amenities.</p> <p>FR O3: Seek to ensure that where flood risk management works take place that the cultural and natural heritage of rivers, streams and watercourses are protected, and improved where possible.</p> <p>Inland Waters and Riparian Zones - Policies</p> <p>IW P1: Protect the biodiversity of rivers, streams and other watercourses, to maintain them in an open state, to discourage culverting or realignment, and where possible, uncover existing culverts and restore the watercourses to acceptable ecological standards and for the passage of fish.</p> <p>IW P2: Ensure that the County's watercourses are retained for their biodiversity and flood protection values and to conserve and enhance where possible, the wildlife habitats of the County's rivers, streams and riparian zones, including those which occur outside of designated areas, in order to provide a network of habitats and biodiversity corridors throughout the County.</p> <p>IW P3: Control the encroachment of development on watercourses and riparian zones and provide for protection measures to watercourses and their banks, including but not limited to: the prevention of pollution of the watercourse, the protection of the river bank from erosion, the retention and/or provision of wildlife corridors and the protection from light spill in sensitive locations, including during construction of permitted development.</p> <p>IW P4: Require the submission of an Ecological Impact Assessment, where deemed necessary (and where necessary an Appropriate Assessment where in relation to Natura 2000 sites), including bat and otter surveys, for development proposals along rivers, streams and canal corridors and areas of ecological importance.</p> <p>IW P5: Maintain a biodiversity protection (buffer) zone of not less than 10 metres from the top bank of all watercourses in the County, with the full extent of the protection zone to be determined on a case by case basis by the Planning Authority, based on site specific characteristics and sensitivities</p>

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		<p>accordance with the River Basin Management Plan for Ireland 2018-2021 and any subsequent amendments or revisions to the Plan.</p> <p>SG. O2: Require applicants, where necessary, to demonstrate that development proposals will not negatively impact on any surface water or groundwater body and be compliant with the requirements of the Water Framework Directive and measures to protect and improve our water bodies set down in the River Basin Management Plan for Ireland 2018 – 2021 and any subsequent amendments or revisions to the Plan.</p> <p>FR. P1: Ensure that all development proposals in Carlow- Graiguecullen comply with the requirements of the Planning System and Flood Risk Management: Guidelines for Planning Authorities (DEHLG and OPW, 2009) and Circular PL2/2014 (and any future revisions or updates to these Guidelines), in particular through the application of the sequential approach and the Development Management Justification Test.</p> <p>FR. P2: Have regard to the findings and recommendations of the Strategic Flood Risk Assessment (SFRA) carried out for this Joint Urban Local Area Plan.</p> <p>FR. P3: Carry out flood risk assessment for the purpose of regulating, restricting, and controlling development in areas at risk of flooding in Carlow-Graiguecullen and to minimise the level of flood risk to people, business, infrastructure and the environment through the identification and management of existing and potential future flood risk.</p> <p>FR. P4: Require the submission of a Site-Specific Flood Risk Assessments (FRA) in areas at risk of flooding in Carlow-Graiguecullen. The assessment shall be carried out by a suitably qualified and indemnified professional, shall be appropriate to the scale and nature of the risk to the proposed development and shall consider all sources of flooding. The FRA shall be prepared in accordance with the Planning System and Flood Risk Management: Guidelines for Planning Authorities (DEHLG and OPW, 2009) and Circular PL2/2014 (and any future revisions or updates to these Guidelines), and shall address climate change, residual risk, avoidance of contamination of water sources and any proposed site-specific flood management measures.</p> <p>FR. P5: Minimise flood risk arising from pluvial (surface water) flooding in Carlow-Graiguecullen by promoting the use of natural flood risk management measures including the use of</p>	<p>and consultation with Inland Fisheries Ireland.</p> <p>IW P6: Ensure that lighting proposals along water courses, rivers, streams and canal corridors, are not in conflict with bat species, and to ensure that expert advice is sought on such lighting proposals in order to mitigate the impacts of lighting on bats and other species.</p> <p>IW P7: Require that runoff from a development area will not result in deterioration of downstream watercourses or habitats, and that pollution generated by a development is treated within the developed area prior to discharge to local watercourses.</p> <p>IW P8: Ensure the protection, improvement or restoration of riverine floodplains and to promote strategic measures to accommodate flooding at appropriate locations, to protect ground and surface water quality and build resilience to climate change.</p> <p>IW P9: Ensure that development proposals do not adversely affect groundwater resources and groundwater dependent habitats and species.</p> <p>IW P10: Consult with Inland Fisheries Ireland, as appropriate, in relation to any works or development that could have potential impacts on watercourses, aquatic habitats, species, and associated riparian habitats, and to take full account of any Guidance documents issued by Inland Fisheries Ireland in this regard, including 'Planning for Watercourses in the Urban Environment, A Guide to the Protection of Watercourses through the use of Buffer Zones, Sustainable Drainage Systems, Instream Rehabilitation, Climate/Flood Risk and Recreational Planning' (2020).</p> <p>IW P11: Promote the use of watercourses for the pursuit of angling, through working with Inland Fisheries Ireland to improve water quality, to improve fish stocks and to provide safe access to fishing, where appropriate, taking full account of the requirements of the Habitats Directive and other relevant legislation.</p> <p>IW P12: Promote the natural, historical and amenity value of the County's watercourses, including public access where feasible and appropriate, in partnership with the National Parks and Wildlife Services, Waterways Ireland, Inland Fisheries Ireland, and other relevant stakeholders, while maintaining the watercourses free from inappropriate development.</p> <p>Wetlands - Policies</p> <p>WT P1: Protect, manage, and enhance wetlands in the County, and resist development that would remove, fragment, or degrade wetlands.</p> <p>WT P2: Protect the biodiversity and flood protection value of wetlands and floodplains in the County.</p> <p>WT P3: Ensure that ecological impact assessment is carried out, where appropriate, for development proposals involving, drainage, reclamation, or infill of wetland areas.</p> <p>WT P4: To promote voluntary construction of new wet lands where deemed in accordance with proper planning and environmental considerations and where same maybe facilitated by ecological schemes.</p> <p>Agriculture – Policies</p> <p>AG. P3: Encourage the development of environmentally sustainable agricultural practices, to ensure that development does not impinge on the visual amenity of the countryside and that watercourses, wildlife habitats and areas of ecological importance are protected from the threat of pollution.</p> <p>AG P4: Ensure that all agricultural activities comply with legislation on water quality, such as the Phosphorous Regulations, Water Framework Directive and Nitrates Directive. In relation to intensive agricultural installations (i.e. intensive pig and poultry farming), recent EPA Guidance (2021) on Assessment of the Impact of Ammonia and Nitrogen on Natura 2000 sites from intensive agriculture installations should be consulted when carrying out project assessment.</p> <p>Forestry – Policies</p> <p>FR P1: Encourage the development of a well-managed sustainable forestry sector with a diversity of species including native hardwood species, which maximises its contribution to the economic and social wellbeing of the county and which is;</p> <ul style="list-style-type: none"> - compatible with the protection of the environment including the avoidance of likely significant effects on Natura 2000 sites. - which does not detract substantially from landscape and visual amenity, protected or scenic views, , built heritage, archaeological / geological features, or cause pollution or degradation to wildlife habitats, natural waters or areas of ecological importance; - which does not obstruct existing public rights of way, traditional walking routes or recreational and tourism amenities and - which is planted, managed and harvested in accordance with the Forest Service Guidelines for Landscape, Forest Harvesting and Environmental, Archaeology, Biodiversity, Water Quality and requirements regarding the protection of the Freshwater Pearl Mussel. <p>Fisheries and Aquaculture - Policies</p> <p>FA P5: Require proposed services / facilities to support fisheries along water courses to undertake the required level of Appropriate Assessment in accordance with appropriate environmental assessments including Habitats Directive Assessment and planning legislation.</p> <p>FA P6: Ensure that the development of services / facilities along watercourses will seek to ensure the protection of water quality and will also be subject to, and consistent with, the requirements of the Water Framework Directive and the relevant South Eastern River Basin Management Plan.</p> <p>Laois County Development Plan</p> <p>ABT 6 Promote and investigate the feasibility of, subject to compliance with the habitats and Birds Directives, sustainable developing and improving of facilities and infrastructure supporting water based tourism activities, (including shore side interpretive centres and jetties). Development proposals outside settlement centres will be required to demonstrate a need to locate in the area and will be required to ensure that the ecological integrity and water quality of the river or lake, including lakeshore and riparian habitats, is not adversely affected by the development</p> <p>WS 3 Protect both ground and surface water resources and to work with Irish Water to develop and roll-out Drinking Water Safety Plans across all water schemes to protect sources of public water supply and their contributing catchments and to ensure that good water quality is sustained in all public water supplies.</p> <p>WS 21 Continue to draw up and implement annual programmes for the monitoring of water quality in Group Water Schemes in accordance with the European Union (Drinking Water) Regulations 2014, as amended and as approved by the EPA.</p>

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		<p>Sustainable Urban Drainage Systems (SuDS) and nature-based solutions. FR. P6: Maintain a riparian (buffer) zone of not less than 10 metres between all watercourses and any development proposals to mitigate against flood risk, with the full extent of the buffer zone to be determined on a case-by-case basis by the Planning Authority, based on site specific characteristics and sensitivities and consultation with Inland Fisheries Ireland.</p> <p>FR. O1: Manage flood risk in Carlow-Graigucullen in conjunction with the Office of Public Works (OPW) and in accordance with the requirements of the Planning System and Flood Risk Management: Guidelines for Planning Authorities (2009), Circular PL02/2014, and any future revisions or updates to these Guidelines.</p> <p>FR. O2: Seek to ensure that where flood risk management works take place that the natural and cultural heritage of the River Barrow and Burren River is protected and improved where possible.</p>	<p>Water Quality Policy Objectives</p> <p>ES 17 Implement the provisions of water pollution abatement measures in accordance with National and EU Directives and other legislative requirements in conjunction with other agencies as appropriate</p> <p>ES 18 Maintain and improve the water quality in rivers and other water courses in the county, including ground waters. The Council will have cognizance of, where relevant, the EU's Common Implementation Strategy Guidance Document No. 20 and 36 which provide guidance on exemptions to the environmental objectives of the Water Framework Directive.</p> <p>ES 19 Minimise the impact on groundwater of discharges from domestic wastewater treatment systems and other potentially polluting sources. The Council will comply with the Environmental Protection Agency's 'Code of Practice: Wastewater Treatment and Disposal Systems Serving Single Houses' (2009) and the Environmental Protection Agency's 'Code for Treatment Systems for Small Communities, Business, Leisure Centres and Hotels'</p> <p>ES 20 Assist and support with the Blue Dots Catchment Programme which been established under the current River Basin Management Plan specifically for the protection and restoration of high ecological status water bodies</p> <p>ES 21 Ensure the protection of all High Status Water Bodies in the county by complying with the requirements of the Local Government (Water Pollution) Act 1977, (as amended), the Nitrates Directive (91/676/EEC), the European Communities Environmental Objectives (Surface Waters) Regulations 2009, the European Communities (Groundwater) Regulations 2010; which standards and objectives are included in the River Basin Management Plans, and other relevant Regulations.</p> <p>WS 22 Ensure where private wastewater treatment systems are permitted by virtue of their remoteness from Public Wastewater Schemes to serve commercial and business developments, e.g Motorway Service Stations, Tourism and the Hospitality Sector etc, that their performance is monitored and audited so that they are operated in compliance with their wastewater discharge license, in order to protect water quality.</p> <p>Groundwater Protection Policy Objectives</p> <p>ES 23 Ensure, through the implementation of the relevant River Basin Management Plan and their associated Programmes of Measures and any other associated legislation, the protection and improvement of all drinking water, surface water and ground waters throughout the county</p> <p>ES 24 Protect and develop, in a sustainable manner, the existing groundwater sources and aquifers in the County and control development in a manner consistent with the proper management of these resources, in accordance with the County Water Source Protection Zones</p> <p>ES 25 Assist and co-operate with the EPA, LAWPRO and IW in the continued implementation of the EU Water Framework Directive</p> <p>ES 26 Minimise the impact on groundwater of discharges from septic tanks and other potentially polluting sources through compliance with the Environmental Protection Agency's 'Code of Practice: Wastewater Treatment and Disposal Systems Serving Single Houses' (2009).</p> <p>ES 27 Ensure the protection of groundwater dependant Natura 2000 sites which rely on the continued supply of groundwater resources to secure the key environmental conditions that support the integrity of the site and through the protection of groundwater standards as defined by the National River Basin Management Plan 2018 – 2021 (and any subsequent Plan). Where no detailed Plan for protection of a specific source is available wastewater discharge will not be permitted within a radius of 200 metres of that source</p> <p>ES 28 Ensure that Source Protection Areas are identified for any public and group scheme water supplies or multiple unit housing developments with private water supplies;</p> <p>ES 29 Continue efforts to improve water quality under the Local Government (Water Pollution) Act 1977, (as amended) and by implementing the measures outlined under the Nitrates Directive (91/676/EEC) and complying with the requirements of the Surface Water Legislation Environmental Objectives (Surface Waters) Regulations 2009, the European Communities (Groundwater) Regulations 2010; which standards and objectives are included in the River Basin Management Plans, and other relevant Regulations</p> <p>ES 30 Ensure that all industrial development is appropriately located, to seek effluent reduction and 'clean production' where feasible, and require that waste water treatment facilities are adequate, and that effluents are treated and discharged in a satisfactory manner</p> <p>ES 31 New developments which include on-site wastewater treatment in an Extreme Vulnerability Inner Source Protection Area shall be restricted to the following categories:</p> <ol style="list-style-type: none"> A dwelling for a full-time farmer; An existing inhabited dwelling in need of replacement; A second family dwelling on a farm where this is required for management of the farm <p>Permission may be granted in the above instances subject to the following stipulations:</p> <ol style="list-style-type: none"> That an alternative site outside the Extreme vulnerability Inner Protection Area is not available The existing water quality of the source is not subject to any significant nitrate and /or microbiological contamination The existing water quality of the groundwater source is in compliance with the environmental objectives set out in relevant River Basin District Management Plan. <p>ES 32 Control intensive agriculture development e.g. intensive pig unit productions in order to minimise their impact on soil and ground water quality. Developments involving intensive pig units shall be required to show compliance with the following requirements:</p> <ol style="list-style-type: none"> The developer shall demonstrate that all lands available are suitable for landspreading of manures and have satisfactory Nutrient Management Plans for such lands Satisfactory arrangements for storage, management and spreading of slurries are provided. <p>ES 33 Encourage the use of catchment-sensitive farming practices, in order to meet Water Framework Directive targets, European Union (Good Agricultural Practice for Protection of Waters) Regulations 2017, as amended and comply with the relevant River Basin Management Plan.</p> <p>ES 34 Consult as necessary with other competent authorities with responsibility for environmental management</p>

SEA Environmental Report for the Draft Carlow-Graiguecullen Joint Urban Local Area Plan 2024-2030

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
			<p>ES 35 To work in co-operation with relevant organisations and major stakeholders, to ensure a co-ordinated approach to the protection and improvement of the county's water resources</p> <p>ES 36 Ensure that developments that may adversely affect water quality will not proceed unless mitigation measures are employed, such as settlements ponds, interceptors etc</p> <p>ES 37 Promote public awareness of water quality issues and the measures required to protect both surface water and groundwater bodies</p> <p>Flood Risk Management Policy Objectives</p> <p>FRM 1 Ensure that flood risk management is incorporated into the preparation of all local area plans through the preparation in accordance with the requirements of the Planning System and Flood Risk Management-Guidelines for Planning Authorities (DoEHLG 2009)</p> <p>FRM 2 Ensure that all development proposals comply with the requirements of the Planning System and Flood Risk Management-Guidelines for Planning Authorities' (DEHLG 2009) and to ensure that the Justification Test for Development Management is applied to required development proposals and in accordance with methodology set out in the guidelines and new development does not increase flood risk elsewhere, including that which may arise from surface water runoff.</p> <p>FRM 3 Support the implementation of recommendations in the CFRAM Programme to ensure that flood risk management policies and infrastructure are progressively implemented.</p> <p>FRM 4 Support the implementation of recommendations in the Flood Risk Management Plans (FRMP's), including planned investment measures for managing and reducing flood risk.</p> <p>FRM 5 Consult with the OPW in relation to proposed developments in the vicinity of drainage channels and rivers for which the OPW are responsible, and to retain a strip on either side of such channels where required, to facilitate maintenance access thereto.</p> <p>FRM 6 Assist the OPW in developing catchment-based Flood Risk Management Plans for rivers in County Laois and have regard to their provisions/recommendations.</p> <p>FRM 7 Protect and enhance the County's floodplains and wetlands as 'green infrastructure' which provides space for storage and conveyance of floodwater, enabling flood risk to be more effectively managed and reducing the need to provide flood defenses in the future, subject to normal planning and environmental criteria.</p> <p>FRM 8 Protect the integrity of any formal (OPW or Laois County Council) flood risk management infrastructure, thereby ensuring that any new development does not negatively impact any existing defense infrastructure or compromise any proposed new infrastructure.</p> <p>FRM 9 Ensure that where flood risk management works take place that the natural and cultural heritage, rivers, streams and watercourses are protected and enhanced.</p> <p>FRM 10 Ensure each flood risk management activity is examined to determine actions required to embed and provide for effective climate change adaptation as set out in the OPW Climate Change Sectoral Adaptation Plan Flood Risk Management applicable at the time.</p> <p>FRM 11 Consult, where necessary, with Inland Fisheries Ireland, the National Parks and Wildlife Service and other relevant agencies in the provision of flood alleviation measures in the County.</p> <p>FRM 12 Prioritise plans for flood defence works in the towns as indicated in the Strategic Flood Risk Assessment in order to mitigate against potential flood risk;</p> <p>FRM 13 Ensure new development does not increase flood risk elsewhere, including that which may arise from surface water runoff;</p> <p>FRM 14 Protect water sinks because of their flood management function, as well as their biodiversity and amenity value and encourage the restoration or creation of water sinks as flood defence mechanisms, where appropriate</p> <p>Surface Water and Drainage Policy Objectives</p> <p>SWD 1 Support in conjunction with Irish Water the improvement of storm water infrastructure to improve sustainable drainage and reduce the risk of flooding in urban environments.</p> <p>SWD 2 Implement policies contained in the Greater Dublin Strategic Drainage Study (GSDSDS) in relation to SUDS and climate change.</p> <p>SWD 3 Ensure new development is adequately serviced with surface water drainage infrastructure which meets the requirements of the Water Framework Directive, associated River Basin Management Plans and CFRAM Management Plans.</p> <p>SWD 4 Require that planning applications are accompanied by a comprehensive SUDs assessment that addresses run-off quantity, run-off quality and its impact on the existing habitat and water quality.</p> <p>SWD 5 Ensure that in public and private developments in urban areas, both within developments and within the public realm, seek to minimise and limit the extent of hard surfacing and paving and require the use of sustainable drainage techniques for new development or for extensions to existing developments, in order to reduce the potential impact of existing and predicted flooding risks.</p> <p>SWD 6 Ensure appropriate maintenance of surface water drainage infrastructure to avoid flood risk.</p> <p>SWD 7 Ensure that all storm water generated in a new development is disposed of on-site or is attenuated and treated prior to discharge to an approved storm water system;</p> <p>SWD 8 Promote storm water retention facilities for new developments and to incorporate design solutions that provide for collection and recycling of surface water in accordance with Sustainable Urban Drainage Systems as recommended in the Planning System and Flood Risk Management: Guidelines for Planning Authorities (DoEHLG, 2009) and Laois County Council's Roads and Drainage Standards, or as amended.</p>
Air and Climatic Factors	<ul style="list-style-type: none"> Potential conflict between development under the Plan and 	<p>Also refer to Section 8.5 of this SEA Environmental Report "Interactions with Climate Mitigation and Adaptation".</p>	<p>Also refer to Section 8.5 of this SEA Environmental Report "Interactions with Climate Mitigation and Adaptation".</p> <p>Carlow County Development Plan</p> <p>Climate Action is provided for throughout the Plan, and is focused upon at Chapter 7 "Climate Action and Energy".</p>

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
	<p>aiming to reduce carbon emissions in line with local, national and European environmental objectives.</p> <ul style="list-style-type: none"> Potential conflicts between transport emissions, including those from cars, and air quality. Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors. Potential conflicts with climate adaptation measures including those relating to flood risk management. 	<p>ABTA. P1: Progress the delivery of the appropriate measures and interventions as outlined in the Carlow-Graiguecullen Area Based Transport Assessment (ABTA) on a phased basis and subject to the availability of funding, in order to support the shift towards sustainable travel and transport throughout the joint urban area and to accommodate anticipated transport demand due to planned population growth.</p> <p>WC. P1: Support and promote enhanced connectivity where appropriate for pedestrians and cyclists in Carlow-Graiguecullen in order to improve accessibility throughout the joint urban area and to the town centre, employment areas, residential areas, local schools and other educational facilities, recreational facilities, and public transport nodes.</p> <p>WC. P2: Ensure that all development where appropriate within Carlow-Graiguecullen provides for connectivity (pedestrian, cyclist and vehicular) to adjacent lands in accordance with the National Transport Authority's Permeability Best Practice Guide (2015) and any subsequent update to this Guide.</p> <p>WC. P3: Ensure all new development proposals are permeable for walking and cycling and seek the retrospective implementation of walking and cycling connections and facilities in existing neighbourhood, where feasible and appropriate, in order to support and encourage a shift to sustainable travel modes.</p> <p>WC. P4: Ensure that pedestrian and cycling infrastructure is based on principles of Universal Design, and that all footpaths in Carlow-Graiguecullen are accessible to all members of the community, including people with disabilities, the elderly, and people with young children.</p> <p>WC. P5: Provide adequate and secure bicycle parking facilities subject to demand analysis at appropriate locations in the joint urban area.</p> <p>WC. P6: Develop and promote in conjunction with local communities and relevant stakeholders in the joint urban area, short walking routes such as looped walks, heritage trails and Slí na Sláinte routes.</p> <p>W. O1: Support and facilitate the delivery of new and improved walking and cycling network in Carlow-Graiguecullen, which delivers permeability enhancements and connections where appropriate as identified in the Area Based Transport Assessment (ABTA) and in Figures 6.4 and 6.5, in conjunction with the National Transport Authority, other statutory agencies, and relevant stakeholders. Final design details shall be subject to appropriate</p>	<p>Air Pollution - Policies</p> <p>AP P1: Promote the preservation of best ambient air quality compatible with sustainable development in accordance with the EU Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive (2008/5/0/EC) and ensure that all air emissions associated with new developments are within Environmental Quality Standards set out in the Air Quality Standards Regulations 2011 (SI No. 180 of 2011) or any updated/ superseding documents.</p> <p>AP P2: Require activities likely to give rise to air emissions (not licenced under separate legislation) to implement measures to mitigate impacts and to undertake air quality monitoring.</p> <p>Noise Pollution - Policies</p> <p>NP P1: Have regard to the provisions of the Environmental Protection Agency (EPA) Acts 1992 and 2003 and the Environmental Protection Agency Act (Noise) Regulations 1994 or any amendments thereto when assessing planning applications.</p> <p>NP P2: Support and seek the implementation of the Carlow Noise Action Plan 2018 -2023 (and any revisions thereto during the life of this Plan).</p> <p>NP P3: Regulate and control activities likely to give rise to excessive noise, other than those activities which are regulated by the Environmental Protection Agency.</p> <p>NP P4: Ensure new development does not cause an unacceptable increase in noise levels affecting noise sensitive properties. Proposals for new development with the potential to create excessive noise will be required to submit a construction and/or operation management plan to control such emissions.</p> <p>Laois County Development Plan</p> <p>Climate Action is provided for throughout the Plan, and is focused upon at Chapter 3 "Climate Action and Energy".</p> <p>Air Quality Policy Objectives</p> <p>ES 38 Promote the preservation of best ambient air quality compatible with sustainable development in accordance with the EU Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive (2008/50/EC) and ensure that all air emissions associated with new developments are within Environmental Quality Standards as out in the Air Quality Standards Regulations 2011 (SI No. 180 of 2011) (or any updated/superseding documents).</p> <p>ES 39 Encourage more sustainable modes of transport and a more balanced modal split to reduce carbon emissions</p> <p>ES 40 Encourage the use of appropriate mitigation measures, such as dust dampeners, chimney stack scrubbers, etc. to minimise the potential impacts of developments on air quality</p> <p>ES 41 Require developments of a certain nature to carry out assessments of the impact of the development on air quality</p> <p>ES 42 Ensure the implementation of the radon prevention measures for new homes as contained within the Building Regulations</p> <p>Noise Pollution Policy Objectives</p> <p>ES 42 Require an assessment of impact of the developments on noise levels, having regard to the provisions of the Environmental Protection Agency (EPA) Acts 1992 and 2003 and the EPA Noise Regulations 1994 when assessing planning applications</p> <p>ES 43 Support the implementation of the Noise Directive 2002/49/EC and associated Environmental Noise Regulations 2006</p> <p>ES 44 Ensure that relevant planning applications comply with the provisions of any Noise Action Plan or noise maps relating to the area.</p> <p>ES 45 Restrict development proposals causing noise pollution in excess of best practice standards</p> <p>ES 46 Regulate and control activities likely to give rise to excessive noise, other than those activities which are regulated by the EPA.</p> <p>ES 47 Ensure new development does not cause an unacceptable increase in noise levels affecting noise sensitive properties. Proposals for new development with the potential to create excessive noise will be required to submit a construction and/or operation management plan to control such emissions.</p> <p>ES 48 Require activities likely to give rise to excessive noise to install noise mitigation measures and monitors. The provision of a noise audit may be required where appropriate</p>

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
		<p>environmental assessment and undergo a separate public consultation process where applicable.</p> <p>PT. P1: Promote the sustainable development of Carlow-Graiguecullen by actively engaging with and supporting relevant national transport agencies in their remit to deliver improvements to the public transport network/services for the joint urban area, including at Carlow Railway Station and Carlow Bus Park, and to ensure the provision of integrated public transport services that provide an attractive and convenient alternative to private car travel thereby reducing car dependency for travel purposes. PT. P2: Support transport agencies, including the National Transport Authority (NTA) and public service transport providers in the provision of new and improved public transport services and routes, the enhancement of the quality, frequency and speed of existing train and bus public transport services serving Carlow-Graiguecullen, and with measures incorporated to facilitate access for all.</p> <p>PT. P3: Generate additional demand for public transport services in Carlow-Graiguecullen by maximising the accessibility of these services through integrated land use and transport planning. PT. P4: Ensure that public transport infrastructure, as required and appropriate, is considered as part of any significant residential or commercial development proposals in the joint urban area e.g., evaluation for requirement for new bus stops, turnaround facilities, pedestrian access, and layover facilities.</p> <p>PT. O1: Support and facilitate the delivery of the preferred public transport improvements identified in the Area Based Transport Assessment (ABTA) to make public transport travel in Carlow-Graiguecullen a more accessible, convenient, attractive, and viable transport option. PT. O2: Seek the delivery of a transport node in the immediate vicinity of Carlow Railway Station, facilitating integration of local bus services and private transport modes with the rail network which will facilitate easy exchange between modes and / or routes.</p> <p>RI. P1: Maintain, improve, and extend the public road network in and around Carlow-Graiguecullen to ensure a high standard of connectivity and safety for all road users.</p> <p>RI. P2: Co-operate and liaise with the Department of Transport, the National Transport Authority (NTA) and Transport Infrastructure Ireland (TII) in relation to securing appropriate improvements/ extensions as appropriate to the public road network within Carlow -</p>	

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
		<p>Graiguecullen.</p> <p>RI. P3: Provide for traffic calming and speed reduction measures throughout the joint urban area, where necessary as funding allows, and ensure that all new developments are designed to incorporate appropriate traffic calming measures as set out in the Design Manual for Urban Roads and Streets (DMURS 2013-2017), and any subsequent updates to this Design Manual.</p> <p>RI. P4: That all medium to large scale and complex planning applications (30+ residential units, commercial development over 1,000sq.m., or other development proposals as required by Carlow and Laois County Councils) shall be accompanied by a Traffic Impact Assessment (TIA) carried out in accordance with Transport Infrastructure Ireland's (TII) Traffic and Transport Assessment Guidelines (2014) and any subsequent updates this Guidelines.</p> <p>RI. O1: Support and facilitate the delivery of the preferred road infrastructure improvements identified in the Area Based Transport Assessment (ABTA) and Figure 6.8, with associated benefits for sustainable travel and transport and multi-modal solutions.</p> <p>RI. O2: Support and facilitate the planning, design, and completion of the Carlow Southern Relief Road N80-R448 including a new bridge crossing over the River Barrow, to enhance connectivity between the South-East and Midlands Regions, and to address and alleviate traffic management considerations thereby making a positive contribution to the local economy and urban environment of Carlow-Graiguecullen.</p> <p>CCH. P1: Increase public awareness of the impacts of climate change on built heritage, and support and promote measures to climate proof-built heritage in the joint urban area having regard to the 'Built & Archaeological Heritage, Climate Change Sectoral Adaptation Plan' (Department of Culture Heritage and the Gaeltacht 2019)</p> <p>CA. P1: Support the transition of Carlow-Graiguecullen to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050, by way of reducing greenhouse gases, increasing renewable energy, and improving energy efficiency and conservation.</p> <p>CA. P2: Promote and encourage positive community and/or co-operative led climate action initiatives and projects in Carlow-Graiguecullen that seek to reduce carbon emissions, improve energy efficiency and</p>	

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
		<p>conservation, enhance green infrastructure, and encourage awareness on climate change issues and impacts.</p> <p>CA. P3: Encourage innovation and facilitate the development of pilot schemes that support climate change mitigation and adaptation measures.</p> <p>CA. O1: Support, in conjunction with key stakeholders, the preparation and implementation of the Climate Action Plans for County Carlow and County Laois, and to facilitate their role as a driver in the mitigation of greenhouse gas emissions and climate change adaptation in Carlow-Graigucullen, and the translation of national climate policy to local and community levels in the joint urban area.</p> <p>CA. O2: Support and facilitate the role of the Carlow Town Decarbonisation Zone in the delivery of effective climate action at a local level, through interventions, projects, and actions aimed at reducing greenhouse gas emissions and increasing energy efficiency and conservation.</p> <p>CA. O3: Advocate for climate action by raising public awareness of climate change issues and responses.</p> <p>LU. P1: Secure climate resilience and a reduction of greenhouse gas emissions in Carlow-Graigucullen by actively implementing policies which support integrated land use planning and sustainable travel, and maximise such opportunities through development location, form, layout, and design.</p> <p>UR. P1: Secure climate resilience and a reduction of greenhouse gas emissions in Carlow-Graigucullen through encouragement and support for urban regeneration projects and interventions, including those set out in Project Carlow 2040 – A Vision for Regeneration.</p> <p>UR. P2: Support the effective and efficient use of land in Carlow-Graigucullen, prioritising compact growth in preference to greenfield land consumption, through the development and regeneration of vacant and underutilised brownfield/infill land and buildings within the existing built-up footprint of the joint urban area.</p> <p>UR. O1: Leverage all available funding streams which will support and deliver urban regeneration outcomes in Carlow-Graigucullen which seek to secure climate resilience and a reduction of greenhouse gas emissions in the joint urban area.</p> <p>RE. P1: Encourage and support a transition to renewable energy sources in Carlow-Graigucullen, subject to compliance with</p>	

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
		<p>proper planning and environmental considerations.</p> <p>EE. P1: Encourage and promote the consideration of energy efficient and low-carbon design solutions and modern construction methods when carrying out pre-planning discussions for major residential, commercial, and industrial development in Carlow-Graigucullen.</p> <p>EE. P2: Encourage development proposals that are low carbon, well adapted to the impacts of climate change, include mitigation measures, and maximise energy efficiency through renewable energy sources, water conservation, SuDS, siting, layout and design.</p> <p>EE. P3: Promote the use of efficient energy storage systems and infrastructure that support energy efficiency and reusable energy system optimisation, subject to compliance with proper planning and environmental considerations.</p> <p>EE. P4: Support the use of blue roofs, green roofs, green walls, photovoltaic and/or solar thermal collector panels and heat pumps on new residential, commercial, industrial, and public buildings.</p> <p>EE. P5: Support and facilitate the installation of district heating systems as a decarbonising technology in new developments in Carlow-Graigucullen, subject to compliance with proper planning and environmental considerations.</p> <p>EE. P6: Promote the use of efficient energy storage systems and infrastructure in Carlow-Graigucullen that support energy efficiency and reusable energy system optimisation, subject to compliance with proper planning and environmental considerations.</p> <p>EE. O1: Support the implementation of national energy efficiency standards in Carlow-Graigucullen, including energy efficiency and conservation measures through: . Improved building design; . Promoting smarter travel; and, . Raising awareness/benefits of energy conservation.</p> <p>EE. O2: Reduce dependency on fossil fuels for domestic and commercial heating in Carlow-Graigucullen by encouraging the use of renewable heat solutions through the development management process.</p> <p>EE. O3: Retrofit all non-LED local authority public lighting in Carlow-Graigucullen to high efficiency LED lanterns to contribute to meeting statutory energy efficiency targets, and to significantly reduce emissions and achieve cost savings with energy and maintenance efficiencies.</p>	

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
		<p>NB. P1: Actively promote and encourage nature-based approaches and green infrastructure solutions in Carlow-Graiguecullen as viable mitigation and adaptation measures to reduce greenhouse gas emissions, increase the adaptive capacity of ecosystems and optimise the multifaceted benefits through:</p> <ul style="list-style-type: none"> . Conservation, promotion, and restoration of the natural environment; . Integrating an ecosystem services approach and promote healthy living environments through enhanced connection with nature and recreation/amenity. . Enhancing biodiversity in the joint urban area. . Assist with water and flood risk management; and, . Carbon storage or sequestration. <p>SW. P1: Ensure that all development proposals where viable incorporate Sustainable Urban Drainage Systems (SuDS) and other nature-based surface water drainage solutions.</p>	
<p>Material Assets</p>	<ul style="list-style-type: none"> • Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Failure to adequately treat surface water run-off that is discharged to water bodies (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Failure to comply with drinking water regulations and serve new development with adequate drinking water (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Increases in waste levels. • Potential impacts upon public assets and infrastructure. • Interactions between agricultural waste and 	<p>Also refer to measures under other environmental components including Population and Human Health, Cultural Heritage, Soil, Water, Air and Climatic Factors and various Land Use provisions.</p> <p>PW. P1: Support Uisce Éireann in the provision of a sufficient quantity and quality of water to serve the needs of the existing and future population of Carlow-Graiguecullen over the period of the Plan and in accordance with the Core Strategies of Carlow and Laois County Councils, and to promote the sustainable management of the water supply for the joint urban area.</p> <p>PW. P2: Ensure that new developments will be required to connect to the public water supply network in Carlow-Graiguecullen where public water mains are available, and subject to connection agreements with Uisce Éireann and compliance with normal planning and environmental criteria.</p> <p>PW. P3: Ensure that development proposals adhere to the standards and requirements of Uisce Éireann in relation to connections to the public water network, and to encourage all developers to consult with Uisce Éireann in relation to connection agreement/self-lay agreement requirements prior to submitting a planning application.</p> <p>PW. P4: Support and collaborate with Uisce Éireann in increasing public awareness of water conservation measures and techniques, and in the reduction of water leakage in Carlow-Graiguecullen as part of the implementation of their National Leakage Reduction Programme.</p>	<p>Also refer to measures under other environmental components including Population and Human Health, Cultural Heritage, Soil, Water, Air and Climatic Factors and various Land Use provisions.</p> <p>Carlow County Development Plan</p> <p>Water Supply -Policies and Objectives</p> <p>WS P1: Work in conjunction with Irish Water to protect existing water and associated drainage infrastructure and to promote investment in the water and drainage network to support environmental protection and facilitate the sustainable growth of the County.</p> <p>WS P2: Collaborate with Irish Water in relation to the preparation of their Investment Plans in order to align the supply of water services with the Core Strategy and Settlement Hierarchy.</p> <p>WS P3: To support Irish Water in delivering key water service projects to meet the future needs of the County subject to compliance with all relevant EU and national legislation and normal environmental and planning criteria.</p> <p>WS P4: Assist Irish Water in their commitment to water conservation and support efforts to address leakage including watermains rehabilitation.</p> <p>WS P5: Promote best practice water conservation practices in all developments including rainwater harvesting and grey water recycling and supporting the implementation of BS8515-2009 Rainwater Harvesting Systems – Code of Practice.</p> <p>WS P6: Require new developments where public water supply and network infrastructure is available to seek a connection to existing public water mains where viable.</p> <p>WS O1: Work with Irish Water to protect, manage and optimise water supply networks in the County and to seek the timely delivery of ongoing upgrades to the watermain networks in towns, villages and those serving the rural population including the significant asset of the trunk main between Rathvilly and Brownhill providing a significant portion of the water supply for the Greater Carlow Urban Area.</p> <p>WS O2: Work with Irish Water in progressing the upgrade of Rathvilly Water Treatment Plant, provision of additional reservoir storage at Leighlinbridge, and improved resilience of supply in the Carlow Central Region, Hacketstown and Bilboa.</p> <p>WS O3: Work with Irish Water to ensure expansion of water supply to meet the future needs of the County in the medium to long term.</p> <p>WS O4: Support the implementation of the Rural Water Programme.</p> <p>Wastewater Policies and Objectives</p> <p>It is the policy of the Council to:</p> <p>PW P1: Support strategic wastewater treatment infrastructure investment by Irish Water and to support Irish Water in providing and maintaining adequate and appropriate wastewater treatment infrastructure to service zoned lands, towns and villages and developments over the period of the Plan in accordance with the Core Strategy and Settlement Hierarchy.</p> <p>PW P2: Facilitate Irish Water in the delivery of public wastewater services which address the residential, commercial and industrial needs of the County subject to compliance with all relevant EU and national legislation and normal planning and environmental criteria.</p> <p>PW P3: Encourage and support a changeover from septic tanks/ private wastewater treatment plants to public collection networks wherever feasible, subject to connection agreements with Irish Water and to ensure that any future development connects to the public wastewater infrastructure where it is available.</p> <p>PW O1: Facilitate the required upgrade of wastewater projects that may arise during the lifetime of this Plan subject to compliance with all relevant EU and national legislation and normal planning and environmental criteria including upgrade and improvement works on current and planned IW schemes for Tullow WWTP, Bagenalstown/Leighlinbridge WWTP, Mortarstown WWTP, and Borris WWTP.</p>

SEA Environmental Report for the Draft Carlow-Graiguecullen Joint Urban Local Area Plan 2024-2030

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
	<p>soil, water, biodiversity and human health – including as a result of emissions of ammonia from agricultural activities (e.g. manure handling, storage and spreading) and the production of secondary inorganic particulate matter.</p>	<p>PW. P5: Support best practice water conservation measures in development proposals, including the use of rainwater harvesting systems, roof water collection (water butts), and grey water recycling.</p> <p>PW. P6: Contribute towards the protection of existing and potential water resources, and their use by humans and wildlife, including rivers, streams, and groundwater, and associated habitats and species, in accordance with the standards and requirements set out in EU and national legislation and guidance.</p> <p>PW. O1: Support the investment and provision of public water supply infrastructure by Uisce Éireann, including any maintenance works and planned upgrades to water treatment plants and the associated public mains water network serving the joint urban area, including the safeguarding of existing such infrastructure corridors, in order to ensure that zoned lands are adequately serviced over the period of the Plan and in accordance with the Core Strategies of Carlow and Laois County Councils.</p> <p>WW. P1: Facilitate and support Uisce Éireann in the delivery of public wastewater services in Carlow-Graiguecullen to serve the needs of the existing and future population of the Plan area, subject to compliance with normal planning and environmental criteria and the standards and requirements set out in EU and national legislation and guidance.</p> <p>WW. P2: Encourage the decommissioning of existing on-site private wastewater treatment systems and the connection of properties to the public wastewater network in Carlow-Graiguecullen wherever feasible, to minimise risk of groundwater pollution and subject to connection agreements with Uisce Éireann and compliance with normal planning and environmental criteria and the standards and requirements set out in EU and national legislation and guidance. The provision of individual wastewater treatment systems within the Plan boundary will be strongly discouraged to minimise the risk of groundwater pollution.</p> <p>WW. P3: Ensure that development proposals adhere to the standards and requirements of Uisce Éireann in relation to connections to the public wastewater network, and to encourage all developers to consult with Uisce Éireann prior to submitting a planning application in relation to connection agreement/self-lay agreement requirements.</p> <p>WW. O1: Support wastewater treatment infrastructure investment and provision by Uisce Éireann in Carlow-Graiguecullen, including any</p>	<p>PW O2: Work and support Irish Water in progressing the “Small Towns and Villages Growth Programme” which is intended to provide growth capacity at WWTPs (and WTPs) in smaller settlements which would not otherwise be provided for in the current Investment Plan.</p> <p>PW O3: Work and support Irish Water, other public infrastructure agencies and local communities to develop the programme for “new homes in small towns and villages” through land activation and supportive works (e.g. serviced sites) as set out in NPO 18b of the National Planning Framework.</p> <p>WW P1: Require that private wastewater treatment systems for individual houses where permitted, comply with the recommendations contained within the EPA Code of Practice for Domestic Waste Water Treatment Systems (2021) Serving Single Houses (population equivalent less than or equal to 10) or any updated version during the period of this Plan, the Water Framework Directive, the National River Basin Management Plan 2018-2021 (as maybe updated) and the Habitats Directive.</p> <p>WT P1: Ensure that the proposed wastewater treatment system for development in unserviced areas complies with the relevant EPA Code of Practice, the Water Framework Directive, the National River Basin Management Plan 2018-2021 (as maybe updated) and the Habitats Directive. There will be a general presumption that development will be focused into areas that are serviced by public wastewater collection networks where available.</p> <p>WT P2: Prohibit the use of shared wastewater treatment systems for new multi-house developments in unserviced rural areas.</p> <p>Waste Management Infrastructure Policies and Objectives</p> <p>WM P1: Implement European Union, National and Regional waste related environmental policy, legislation, guidance and codes of practice to improve management of material resources and wastes.</p> <p>WM P2: Encourage the transition from a waste management economy to a green circular economy in accordance with A Waste Action Plan for a Circular Economy, Ireland’s National Waste Policy 2020-2025’, to enhance employment and increase the value recovery and recirculation of resources.</p> <p>WM P3: Support the circular economy, and to provide, promote and facilitate high quality sustainable waste recovery and disposal infrastructure and technology in keeping with the EU waste hierarchy subject to economic and technical feasibility and environmental assessments.</p> <p>WM P4: Seek the provision of adequately sized public recycling facilities in association with new commercial developments and in tandem with significant change of use / extensions of existing commercial developments where appropriate.</p> <p>WM P5: Require the appropriate provision for the sustainable management of waste within developments, including the provision of facilities for storage, separation and collection of waste.</p> <p>WM P6: Ensure that all waste that is disposed of by private waste companies is done so in compliance with the requirements of the Environmental Protection Agency and the Waste Management Legislation and in accordance with the Planning Code.</p> <p>WM O1: Implement the provisions of the Southern Region Waste Management Plan 2015-2021, and any updates thereto during the life of this Plan, subject to compliance with the Habitats Directive and normal planning and environmental considerations.</p> <p>WM O2: Continue to rehabilitate the former Powerstown landfill site and following completion of these works to accommodate an appropriate end-use that is compatible with the local environment.</p> <p>WM O3: Implement the Litter Management Plan 2021-2023 and updates during the life of this Plan.</p> <p>WM O4: Use statutory powers to prohibit the illegal deposit and disposal of waste, refuse and litter, and to authorise and regulate waste disposal within the County in an environmentally sensitive manner.</p> <p>WM O5: Implement the legislative provisions in relation to historic landfill sites in the County and to undertake risk assessments where required and any subsequent remedial measures where necessary.</p> <p>Laois County Development Plan</p> <p>Public Water Supply Policy Objectives</p> <p>WS 1 Continue in conjunction with Irish Water to ensure that a Safe and Reliable Water Supply by managing the sustainability and quality of drinking water from source to tap to protect human health</p> <p>WS 2 Provide for Resilience in Public Water Schemes and support social and economic growth and meet customer demands particularly during drought conditions by working with IW to deliver on the following priority schemes:</p> <ul style="list-style-type: none"> • Portlaoise PWS – Bring into production the 3 non-producing Boreholes in Coolbanagher and increase Storage Capacity to provide 24 hours emergency supply; • Portarlinton PWS – Bring into Production Borehole(s) and Treatment Plant in the Doolough Wellfield and increase Storage Capacity to provide 24 hours emergency supply and • Swan PWS – Bring into Production the Borehole and Treatment Plant at Tollerton. <p>WS 3 Protect both ground and surface water resources and to work with Irish Water to develop and roll-out Drinking Water Safety Plans across all water schemes to protect sources of public water supply and their contributing catchments and to ensure that good water quality is sustained in all public water supplies.</p> <p>WS 4 Work with Irish Water to ensure that adequate water services will be available to service zoned development and to require developers to engage with IW in a timely fashion by way of submitting a pre-connection enquiry form to IW.</p> <p>WS 5 Laois County Council will not permit developments of greater than one dwelling which propose standalone developer provided waste water infrastructure in areas remote from Public Water Schemes</p> <p>WS 6 Work with IW to minimise wastage of water supply by requiring existing and new developments to incorporate water conservation measures</p> <p>WS 7 Promote and encourage the harvesting of rainwater to meet non-potable water needs</p> <p>WS 8 Implement Energy Efficiency solutions in Water Systems;</p> <p>WS 9 Encourage industrial and commercial developments with small private water supplies to connect to the public water schemes where technically</p>

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		<p>maintenance works and planned upgrades for Mortarstown WWTP and the associated wastewater network serving the joint urban area, including the safeguarding of existing such infrastructure corridors, in order to ensure that zoned lands are adequately serviced over the period of the Plan and in accordance with the Core Strategies of Carlow and Laois County Councils.</p> <p>WW. O2: Implement, in conjunction with Uisce Éireann, the relevant recommendations set out in the EPA (2022) publication 'Urban Waste Water Treatment in 2021' and any subsequent update to this document.</p> <p>WM. P1: Promote and support sustainable forms of waste management by households, communities, and businesses, including waste prevention, minimisation, reuse, recycling, and recovery.</p> <p>WM. P2: Safeguard the environment of the joint urban area by seeking to ensure that residual waste is disposed of appropriately.</p> <p>WM. P3: Ensure that Carlow-Graiguecullen is served by adequately sized public recycling facilities, including bring bank recycling facilities, and to adequately maintain existing recycling facilities in the joint urban area.</p> <p>WM. P4: Require the incorporation of sustainable waste management measures within developments, including the provision of adequately sized facilities for the storage, separation, and collection of waste and recyclable materials.</p> <p>WM. O1: Implement the provisions of the Southern Region Waste Management Plan 2015-2021 and the Eastern Midlands Region Waste Management Plan 2015-2021, and any subsequent or updated versions of these plans during the lifetime of this JULAP, as a means of promoting the circular economy approach and ensuring the prevention and management of waste in a safe and sustainable manner.</p> <p>WM. O2: Promote and facilitate communities becoming involved in environmental awareness activities and community-based recycling initiatives or environmental management initiatives in support of local sustainable waste management practices.</p> <p>WM. O3: Eliminate unauthorised fly tipping in the joint urban area and to regulate and control the disposal of builder's spoil and rubble.</p>	<p>and financially feasible.</p> <p>WS 10 Ensure Water Conservation through the following actions:</p> <ul style="list-style-type: none"> • Roll-out further Mains Replacement programmes: • Continue with validation of District Metre Areas(DMA's) • Carry out focused Find and Fix Programmes to achieve target volumetric reductions in accordance with IW's targets. <p>WS11 Work in accordance with IW/LA MoU and Protocol on an agreed programme with LA planning to take in charge private housing estates Water and transfer assets to IW.</p> <p>WS 12 Work in accordance with IW/LA MoU and Protocol and with the NFGWS on an agreed programme with the Local Authority to take in charge Public Group Water Scheme and transfer assets to IW.</p> <p>WS 13 Secure the future sustainability of Laois County Council's INAB Accredited Laboratory and enhance the accreditation status of the Laboratory in order to develop the Laboratory into one of 4 Regional Local Authority Accredited Laboratories nationally.</p> <p>Public Wastewater Objectives</p> <p>WS14 Support and facilitate social and economic growth in line with National, Regional and Local spatial planning policy and the Core Strategy in Chapter 2 of this plan through the following actions:</p> <ul style="list-style-type: none"> • Measure 1: Facilitate Growth: Wastewater Growth Programme: - Upgrade to the Portlaoise WWTP – phase 1 as proposed in the Feasibility Study. <p>Roll-out agreed priorities for IWs Small Towns and Villages Growth Programme 2020 to 2024 and subsequent Programmes.</p> <ul style="list-style-type: none"> • Measure 2: Network and Treatment Programmes: Roll-out improvements to network in Portlaoise WW Network as identified in the Portlaoise Drainage Area Plan (DAP). Complete DPAs for Portarlinton and Mountmellick Wastewater Networks and complete modeling for improvements to these networks. • Measure 3: Irish Water Small Towns and Villages Growth Programme Under IWs Small Towns and Villages Growth Programme 2020 to 2024 and subsequent programmes agree priorities for delivering upgrades/replacements of WWTPs with insufficient headroom or plants that are non-compliant and damaging to the receiving environment so as to enhance and provide for growth in small towns and villages throughout the county. <p>WS 15 Work in conjunction with Irish Water and with the DHPLG during the lifetime of the plan for the provision, extension and upgrading of waste water collection and treatment systems in the County that have existing facilities to serve existing populations and facilitate sustainable development of those towns, in accordance with the requirements of the Settlement Strategy and associated Core Strategy. In particular</p> <p>A. Wastewater Discharge Authorisation Compliance (EPA Licensed Plants)</p> <ol style="list-style-type: none"> i. Complete upgrade to Portlaoise – phase 1 as proposed in the Feasibility Study; ii. Upgrades to Ballinakill; iii. Ballyroan – Phase 3, 4 and 5; iv. Castletown – Sludge and Storm Tank Programmes; v. Mountmellick – Ortho P and Ammonia Compliance <p>B. Urban Wastewater Treatment Directive Compliance: Complete upgrades to COA WWTPs (plants with <500pe design) under the National Certificate of Authorisation Programme (NCAP) on a priority basis as agreed with the Local Authority.</p> <p>WS 16 Promote use of wetland systems for treatment of waste-water in accordance with Department of Environment, Heritage and Local Government guidelines "Integrated Constructed Wetlands –Guidance Document for Farmyard Soiled Water and Domestic Wastewater Applications" [2010].</p> <p>WS 17 Deliver Energy efficient Capital Programmes where appropriate and as follows</p> <ol style="list-style-type: none"> i. Borris-in-Ossory – Install Fine Bubble Diffused Aeration <p>WS 18 Work in accordance with IW/LA MoU and Protocol on an agreed programme with LA planning to take in charge private housing estates Wastewater Infrastructure and transfer assets to IW.</p> <p>Rural Water and Wastewater Policy Objectives</p> <p>WS 19 Work in conjunction with the NFGWSs and with the support and funding of the DHPLG by way of the Rural Water Multi-Annual Programme 2019 to 2021 and subsequent programmes to - through various measures - improve the quality, reliability and efficiency of water services for rural dwellers where Irish Water services are not available and thereby sustain and enhance the social, economic and future prosperity of the rural water sector.</p> <p>WS 20 Support, monitor, advise and administer Group Water Schemes on behalf of the DHPLG in conjunction with the NFGWSs by implementation of Source Protection Works, Water Treatment Improvements, Amalgamation/Rationalisation of schemes and administering of Capital Replacement Costs</p> <p>WS 21 Continue to draw up and implement annual programmes for the monitoring of water quality in Group Water Schemes in accordance with the European Union (Drinking Water) Regulations 2014, as amended and as approved by the EPA.</p> <p>WS 22 Embed water conservation at the heart of water policy through prioritising resource management, abstraction control, source protection, tackling leakage and encouraging behavioural change.</p> <p>WS 23 Promoting water conservation and water resource management reflected in investment for leak detection and repair, network improvements, cost effective metering and awareness campaigns among the GWS.</p> <p>WS 24 Ensuring that rural water services investment decisions are aligned with the broad strategic aims of Project Ireland 2040: National Planning</p>

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			<p>Framework and Improve the resilience of rural water supplies by supporting the implementation OF ing the following measures</p> <p>a) New Group Water Schemes and extensions</p> <p>b) Transition of Group Water and Group Sewerage schemes to the Public (Irish Water) Water Sector</p> <p>c) Community Connections (Water & Wastewater) Networks</p> <p>d) Innovation and Research.</p> <p>WS 25 Ensure that the scheme relating to private wells is administered effectively and that improvements to sources and/or treatment works are carried out in accordance with IW and EPA standards</p> <p>WS 26 Work in conjunction with stakeholders through various measures to improve the quality, reliability and efficiency of water services for consumers of Small Private Supplies where Irish Water services are not available and thereby sustain and enhance the social, economic and future prosperity of the rural water sector.</p> <p>WS 27 Support, monitor, advise and raise awareness among owner/operators of SPSS of the their duties as water suppliers under the European Union (Drinking Water) Regulations 2014 as amended to ensure that a safe and dependable water supply is available to those persons who avail of the service (Customers/service users/children etc).</p> <p>WS 28 Collaborate with stakeholders including LA Water and Environmental Services staff, the HSE, LEO staff, Laois Chamber, representatives from the educational, tourist, childcare and hospitality sectors to raise awareness among their members of the duties of the Owners/Operators in relation to the provision of clean and wholesome drinking water</p> <p>WS 29 Maintain and update its register of SPSS and will focus their enforcement powers on those schemes that are non-compliant with the Drinking Water Regulations by carrying out Audits on these schemes and by further enforcement measures if improvements are not implemented. Where the option exists to connect to a public water supply, the water supplier will be encouraged to make an application to IW for a connection.</p> <p>Waste Recovery & Disposal Policy Objectives</p> <p>ES 1 Implement and support the strategic objectives of the Waste Action Plan for a Circular Economy – Ireland’s National Waste Policy 2020-2025.</p> <p>ES 2 Implement and support the strategic objectives of the Eastern Midlands Regional Waste Management Plan 2015-2021 and any subsequent Waste Management Plan adopted during the current development plan period.</p> <p>ES 3 Promote circular economy principles, prioritising prevention, reuse, recycling and recovery, and to sustainably manage residual waste. New developments will be expected to take account of the provisions of the Waste Management Plan for the Region and observe those elements of it that relate to waste prevention and minimisation, waste recycling facilities, and the capacity for source segregation.</p> <p>Waste Management Enforcement Policy Objectives</p> <p>ES 4 Implement the provisions of the Waste Management Act, 1996, as amended and associated Waste Regulations.</p> <p>ES 5 Investigate and take appropriate legal action against those involved in unauthorised waste activities.</p> <p>ES 6 Implement the provisions of the Litter Pollution Act, 1997, as amended and the Laois Litter Management Plan 2018 -2020 and any subsequent revisions.</p> <p>ES 7 Implement, complete and report to the EPA on the annual agreed Recommended Minimum Criteria for Environmental Inspections (RMCEI).</p> <p>ES 8 Encourage and support the segregation of food waste and the provision of separate collection of waste in accordance with the requirements of the EU (Household Food Waste & Bio-Waste) Regulations 2015, the Waste Management (Food Waste) Regulations 2009, the Waste Framework Directive Regulations, 2011 and other relevant legislation.</p> <p>ES 9 Implement the provisions of the Laois Waste Management (Storage, Presentation and Segregation of Household & Commercial) Waste Bye-Laws 2018 and to take enforcement action where necessary to protect the environment and local amenities.</p> <p>ES 10 Process and make recommendations of all Waste Facility Permit (WFP) and Certificate of Registration (COR) Applications under the relevant Regulations. To monitor and inspect all authorised facilities with WFPs & CORs.</p> <p>ES 11 Require Construction and Environmental Management Plans (CEMPs) to be prepared for larger scale projects and this requirement shall be assessed on a case by case basis as part of the development management process.</p> <p>ES 12 Require that all construction projects are carried out in accordance with Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects.</p> <p>ES 13 Encourage best environmental practice in all agricultural, industry, business and local authority activities.</p> <p>Civic Amenity Facilities & Bring Bank Policy Objectives</p> <p>ES 14 Provide for, improve and maintain the network of bring infrastructure (e.g. civic amenity facilities, bring banks) in the County to facilitate the recycling and recovery of hazardous and non-hazardous municipal wastes.</p> <p>ES 15 Develop a 10-year roadmap for the strategic planning and development of the Kyletalesha Transfer Station and Civic Amenity Site.</p> <p>ES 16 Develop the Bring Bank Regional Contract to improve the quality of service and frequency of collection.</p> <p>RL 2 Facilitate the development of agriculture while ensuring that natural waters, wildlife habitats and conservation areas are protected from pollution.</p>
Cultural Heritage	<ul style="list-style-type: none"> Potential effects on protected and unknown archaeology and protected architecture arising 	<p>HR. P1: Promote and encourage heritage-led regeneration, including the conservation and sustainable use of historic buildings and sites integral to the history and evolution of Carlow-Graiguecullen, and in order to raise public</p>	<p>Carlow County Development Plan</p> <p>General: Built Heritage - Policies</p> <p>BH P1: Promote the conservation and reuse of early traditional structures, roofscapes of historic centres and the recognition of interrelationships between sites and landscape features in terms of the insertion of new buildings and managing their impact on the historic environment.</p> <p>BH P2: Promote the development of heritage-led regeneration, to plan for the reuse and conservation of core-built heritage and archaeological sites</p>

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	<p>from construction and operation activities.</p>	<p>awareness of this history, and to tackle dereliction and vacancy so as to improve the quality of life of the joint urban area by making it an interesting, unique, and attractive place for residents and visitors.</p> <p>HR. O1: Support, in conjunction with key stakeholders, the preparation and implementation of a Heritage-Led Regeneration Plan for Carlow Town in accordance with the Historic Towns Initiative and relevant funding sources, and its role in the conservation, enhancement and interpretation of built heritage, and the reuse of vacant historic buildings.</p> <p>HR. O2: Support the implementation and role of the 'Interventions Areas' identified in Project Carlow 2040 – A Vision for Regeneration, in enhancing the setting and context of key built heritage assets in Carlow Town, including improved access to and exposure and interpretation of these assets, and subject to compliance with proper planning and environmental considerations.</p> <p>BH. P1: Ensure the protection and conservation of the character, setting and special interest of all buildings and structures (or parts of structures) and sites, listed as protected structures in the Records of Protected Structures for Carlow-Graiguecullen, including their curtilage, attendant grounds, and fixtures and fittings.</p> <p>BH. P2: Preserve and enhance buildings and structures listed in the Records of Protected Structures for Carlow-Graiguecullen, and to carefully consider any development proposals that would affect their special interest, both directly and indirectly.</p> <p>BH. P3: Ensure that all development proposals that affect a protected structure or a proposed protected structure in Carlow-Graiguecullen, including proposals for modifications, alterations, refurbishment, or extensions, are sympathetic to and protect, conserve and retain the character, setting and special interest of the protected structure or proposed protected structure, in accordance with the 'Architectural Heritage Protection: Guidelines for Planning Authorities' (Department of Arts, Heritage and the Gaeltacht, 2011).</p> <p>BH. P4: Require development proposals involving protected structures or proposed protected structures in Carlow-Graiguecullen, to be subject to an Architectural Heritage Impact Assessment as described in Appendix B of 'Architectural Heritage Protection: Guidelines for Planning Authorities' (Department of Arts,</p>	<p>within urban centres as an integral part of the evolution of the historic place and its significance.</p> <p>BH P3: Promote best conservation practice and to lead by example through the management and safeguarding of historic sites and properties in the ownership of the Local Authority.</p> <p>BH P4: Support the development of sustainable infill in town back lands that is appropriate in scale and character to that of the historic centre, that transitions and accommodates surviving structures and retains the historic streetscape form particularly within sensitive areas of built and archaeological importance.</p> <p>BH P5: Co-ordinate significant infrastructural projects such as public realm works, flood relief works and new transport routes to the benefit of surviving historic sites in order to improve their enjoyment, presentation and enhanced accessibility.</p> <p>BH P6: Promote awareness and the appropriate adaptation of the County's architectural and archaeological heritage to deal with the effects of climate change.</p> <p>Archaeological Heritage - Policies</p> <p>AH P1: Secure the preservation (either in situ or by record) of all archaeological monuments included in the Record of Monuments and Places (RMP) and their settings, and of all sites and features of significant archaeological or historical interest, including potential and previously unknown sites or features, in consultation with the National Monuments Service in the Department of Housing, Local Government and Heritage.</p> <p>AH P2: Protect and conserve underwater archaeological heritage in the inland waters of the County, including potential and previously unknown sites or features, in consultation with the National Monuments Service in the Department of Housing, Local Government and Heritage.</p> <p>AH P3: Protect, conserve and enhance the archaeological heritage of the County, and to manage development in a manner that avoids adverse impacts on sites, monuments, features or objects of significant archaeological or historical interest, including areas and sites of archaeological potential. There will be a presumption in favour of the 'preservation in situ' of archaeological heritage in accordance with the 'Framework and Principles for the Protection of Archaeological Heritage (DAGHI 1999) or any superseding national policy document.</p> <p>AH P4: Ensure that any development proposal that may, by reason of location, scale, nature, layout or design, have potential implications for archaeological heritage (including areas and sites of archaeological potential), shall be subject to an archaeological assessment. The archaeological assessment will seek to ensure that the development proposal can be sited and designed to avoid impacting on archaeological heritage. Any archaeological excavation shall be carried out in accordance with best practice outlined by the NMS, the National Museum of Ireland and the Institute of Archaeologists of Ireland. In all such cases the Planning Authority shall consult with the National Monuments Service in the Department of Housing, Local Government and Heritage.</p> <p>AH P5: Have regard to the Record of Monuments (RMP) and Places, the Urban Archaeology Survey and archaeological sites identified subsequent to the publication of the RMP when assessing planning applications for development. No development shall be permitted in the vicinity of a recorded feature, where it detracts from the setting of the feature or which is injurious to its cultural or educational value.</p> <p>AH P6: Protect the Zones of Archaeological Potential (Zones of Archaeological Notification) located within both urban and rural areas as identified in the Record of Monuments and Places (RMP).</p> <p>AH P7: Protect and conserve historic burial grounds within the County, including through the avoidance of extensions to them that would have an inappropriate level of impact on sub-surface archaeological remains or on their setting and amenity, and encourage their management and maintenance in accordance with best practice conservation principles, including 'Guidance for the Care, Conservation and Recording of Historic Graveyards' (The Heritage Council 2011) and 'Ireland's Historic Churches and Graveyards' (The Heritage Council), and in consultation with the National Monuments Service in the Department of Housing, Local Government and Heritage.</p> <p>AH P8: Promote public awareness of the archaeological heritage of the County, and encourage where appropriate and practicable, the provision of appropriately designed and located signage, interpretative material, and public access (including disabled access) for archaeological sites under the direct ownership, guardianship or control of the Council and/or the state.</p> <p>AH P 9: Support community initiatives and projects regarding the preservation, presentation and access to archaeological heritage and underwater cultural heritage, provided such are compatible with appropriate conservation policies and standards, having regard to the guidance and advice of the Department of Housing, Local Government and Heritage.</p> <p>AH P10: Support the incorporation of recorded monuments into designated open spaces and public amenity spaces, provided this is done in a manner compatible with the protection and proper management and conservation of the monument in question. Accordingly, where such incorporation takes place an appropriate and enforceable permanent management and conservation plan will be required.</p> <p>Laois County Development Plan</p> <p>Policy Objectives for Archaeological Heritage</p> <p>AH 1 Manage development in a manner that protects and conserves the integrity and character of archaeological heritage of the county which avoids adverse impacts on sites, monuments, settings, features or objects of significant historical or archaeological interest and secure the preservation in-situ or by record of all sites and features of historical and archaeological interest.</p> <p>AH 2 Support the preservation or conservation of historically significant street patterns, building lines and plot widths in its towns and villages as well as the preservation of features such as town walls, historic revetments, and public realm features such as granite kerbing, historic drinking fountains, cobbles, vent pipes whether or not they benefit from protection in their own right.</p> <p>AH 3 Protect the intrinsic value, character, integrity and settings of monuments and places in the Record of Monuments and Places (RMPs) and any forthcoming statutory register and protect Zones of Archaeological Potential against inappropriate development.</p> <p>AH 4 In areas of archaeological potential, where groundworks are proposed, ensure that all works are undertaken to the highest standard and the</p>

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		<p>Heritage and the Gaeltacht, 2011).</p> <p>BH. P5: Support and promote the use of expert conservation advice, best conservation practice, and the use of appropriately skilled and experienced contractors and specialists, for any works to protected structures in Carlow-Graiguecullen, in accordance the 'Architectural Heritage Protection: Guidelines for Planning Authorities' Department of Arts, Heritage and the Gaeltacht, 2011) and their 'Advice Series' on how best to repair and maintain historic buildings.</p> <p>BH. P6: Ensure that development proposals do not obscure views, principal elevations and the character and setting of protected structures.</p> <p>BH. P7: Prevent inappropriate alterations to protected structures, and to prohibit the demolition of any protected structure unless the relevant local authority is satisfied that exceptional circumstances exist. The demolition of a protected structure with the retention of its façade will likewise not generally be permitted.</p> <p>BH. P8: Promote the sympathetic maintenance, adaptation and appropriate use and reuse of protected structures in Carlow-Graiguecullen and encourage measures that support the climate proofing of these structures.</p> <p>BH. P9: Promote the retention of any original or historic building fabric including for example timber sash windows, stonework, brickwork, joinery, ironwork, traditional mortars, render and decorative or weather finishes and slate and vernacular architectural details.</p> <p>BH. P10: Proactively address dereliction, endangerment, neglect, and vacancy of historic buildings in Carlow-Graiguecullen, through the use of relevant statutory provisions and through the promotion of appropriate uses and the sensitive conservation of historic buildings, in conjunction with other relevant initiatives.</p> <p>BH. P11: Protect and conserve important heritage items such as, gates, street furniture, post boxes and other significant historic features of interest in Carlow-Graiguecullen.</p> <p>AC. P1: Protect and enhance the historic character, heritage value and visual setting of the Architectural Conservation Areas in Carlow-Graiguecullen, and to carefully consider any development proposals that would affect the special interest of these areas.</p> <p>AC. P2: Ensure that development proposals within or adjoining the Architectural Conservation Areas in Carlow-Graiguecullen are of high-quality design and finish and are sympathetic to the character of the areas. All applications within and adjoining an ACA will be</p>	<p>resultant information made publicly available. Developers will be required to have regard to Archaeology and Development: Guidelines for Good Practice for Developers (ICOMOS, 2000) in planning and executing development in sensitive areas. The Council favours the preservation in-situ of archaeological remains, where areas of archaeological potential are located in town centres or villages, preservation of archaeological remains by record will be considered.</p> <p>AH 5 Encourage, where practicable, the provision of public access and signage to sites identified in the Record of Monuments and Places under the direct ownership, guardianship or control of the Council and/or the State.</p> <p>AH 6 Work closely with the relevant State bodies to deliver the conservation objectives of the Rock of Dunamase and redevelopment of Fort Protector to secure funding for the preservation and development of these culturally important sites.</p> <p>AH 7 Require visual impact statements for developments within the area around the Rock of Dunamase in order to assess the potential impacts of development in the area.</p> <p>AH 8 Work with stakeholders including the OPW, the Heritage Council, the Arts Council, local communities, Bord Fáilte and businesses to support the development of heritage and cultural tourism in County Laois .</p> <p>AH 9 Maximise the potential of Dunrally Viking Fort, as a heritage/cultural and tourism site.</p> <p>AH 10 Protect where appropriate industrial heritage structures or elements of significance identified in the Laois Industrial Archaeology Survey by adding them to the Record of Protected Structures during the lifetime of the Development Plan.</p> <p>Policy Objectives for Protected Structures</p> <p>PS 1 Consult with the Department of Environment, Heritage and Local Government in considering planning applications that may affect Protected Structures or Architectural Conservation Areas (ACA). The Council will have regard to comments made by the Department and relevant guidelines such as the Architectural Heritage Protection: Guidelines for Planning Authorities (DAHG, 2011) and other pertinent guidelines regarding energy ratings for Protected Structures.</p> <p>PS 2 Protect and conserve buildings, structures and sites contained in the Record of Protected Structures in accordance with 'Architectural Heritage Protection Guidelines for Planning Authorities' 2004 and ensure the effective promotion of the Architectural Heritage provisions of Planning and Development Act 2000 (as amended) and therefore the protection of Laois's built heritage, including Architectural Conservation Areas (ACAs) and Protected Structures.</p> <p>PS 3 Any development, modification, alteration, or extension affecting a Protected Structure must be prepared by suitably qualified persons and Accompanied by appropriate documentation as outlined in the Architectural Heritage Protection Guidelines for Planning Authorities [DAHG, 2011] to enable a proper assessment of the proposed works and their impact on the structure or area and be carried out to best practice conservation standards. Its setting will be considered against the following criteria, and whether it is:</p> <ol style="list-style-type: none"> Sensitively sited and designed; Compatible with the special character; Views of principal elevations of the protected structures are not obscured or negatively impacted; Of a premium quality of design and appropriate in terms of the proposed scale, mass, height, density, layout, and materials <p>so that the integrity of the structure and its curtilage is preserved and enhanced. Where appropriate, the Protected Structure status is used as a stimulus to the imaginative and considered design of new elements.</p> <p>PS 4 Where the restoration or refurbishment of a Protected Structure or a key Architectural Conservation Area building that is in poor or fair condition is proposed and is for a purpose compatible with the character of the building, the relaxation of development management standards on unit sizes, amenity space or parking will be considered by the Council.</p> <p>PS 5 Refuse planning permission for the demolition of any protected structure unless the Council is satisfied that exceptional circumstances exist. The demolition of a protected structure with the retention of its façade will likewise not generally be permitted.</p> <p>PS 6 Favourably consider the change of use of any structure included on the Record of Protected Structures provided such a change of use does not adversely impact on its intrinsic character. In certain cases, the Planning Authority may relax site zoning restrictions / development standards in order to secure the preservation and restoration of the structure.</p> <p>PS 7 Review and update the Record of Protected Structures on an on-going basis and to make additions and deletions as appropriate</p> <p>PS 8 Integrate climate-change adaptation measures into all heritage works and maintenance plans by demonstrating green ways of working in historic buildings, ensuring that the carbon footprint of adaptation measures is considered</p> <p>PS 9 Promote the repair and reuse of existing building stock, including heritage buildings, as a means of avoiding unnecessary carbon outlays with new build</p> <p>PS 10 Support proposals to improve the thermal performance of historic buildings with renewable energy technologies. Such proposals shall be sensitive to traditional methods of construction to ensure that the proposed works are appropriate and do not cause damage to the structure, require the removal of historic fabric such as original windows, doors and floors, or have a detrimental visual impact.</p> <p>Policy Objectives for ACA</p> <p>ACA 1 Ensure that any development, modifications, alterations, or extensions within an ACA are sited and designed appropriately, and are not detrimental to the character of the structure or to its setting or the general character of the ACA and are in keeping with any Architectural Conservation Area Statement of Character Guidance Documents prepared for the relevant ACA.</p> <p>ACA 2 Demolition of buildings or substantial parts of structures in cases where those structures make a positive contribution to the special character of the ACA will not be acceptable in principle. Only in exceptional circumstances, where the redevelopment or replacement structures would produce</p>

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
		<p>assessed in the context of the following criteria and the impact of any development proposal on the immediate surroundings of the site, the broader townscape, or its landscape setting;</p> <p>„X</p> <p>The height, scale, and orientation of the development proposal;</p> <p>„X</p> <p>The bulk, massing and density of the development proposal and its layout in relation to any building line and the surrounding plan form;</p> <p>„X</p> <p>The quality and type of materials to be used in the construction of the development proposal, and any boundary treatments and landscaping;</p> <p>„X</p> <p>The design and detail of the development proposal;</p> <p>„X</p> <p>The retention of the traditional plot boundaries in the joint urban area; and,</p> <p>„X</p> <p>The retention and maintenance of historic street furniture, surfaces, and boundary treatments.</p> <p>AC. P3: Avoid the removal of structures and distinctive features which make a positive contribution to the character of the Architectural Conservation Areas in Carlow-Graiguecullen, including buildings, building features / fixtures / fittings, shop fronts, boundary treatments, street furniture, landscaping and paving.</p> <p>AC. P4: Require development proposals in the Architectural Conservation Areas to have regard to the 'Architectural Heritage Protection: Guidelines for Planning Authorities' (Department of Arts, Heritage, and the Gaeltacht, 2011) and their 'Advice Series' on how best to repair and maintain historic buildings.</p> <p>AC. P5: Encourage the retention, repair and re-use of materials which characterise the vernacular architecture of the Architectural Conservation Areas, including stone, slate, timber windows and doors, and decorative renders.</p> <p>AC. P6: Strongly discourage proposals for the demolition of a building or structure that positively contributes to the character of an Architectural Conservation Area, except in exceptional circumstances. Such applications will be required to be accompanied by a photographic survey, condition report and architectural heritage assessment of the structure and an assessment of the impact of</p>	<p>substantial benefits for the community which would decisively outweigh the loss resulting from demolition, would demolition of this nature be considered.</p> <p>ACA 3 Investigate the designation of further ACAs at appropriate locations throughout and prepare a character statement appraisal and area specific policy for each ACA to include Stradbally, Mountmellick Mountrath and Portarlinton, (the latter in collaboration within Offaly County Council).</p> <p>Policy Objectives for Vernacular Structures</p> <p>VS 1 Recognise the importance of the contribution of vernacular architecture which may not be protected to the promote where feasible the protection, retention and appropriate revitalisation and use of the vernacular built heritage, including structures that contribute to landscape and streetscape character and discourage the demolition of these structures;</p> <p>VS 2 Resist the demolition of vernacular architecture, in particular thatched cottages and farmhouses and to encourage their sensitive reuse having regard to the intrinsic character of the structure.</p> <p>VS 3 Ensure that both new build, and extensions to vernacular buildings are of an appropriate design and do not detract from the buildings character.</p> <p>VS 4 Seek the repair and retention of traditional timber and/or rendered shop fronts and pub fronts, including those that may not be protected structures.</p> <p>VS 5 Develop and publish guidelines on the conservation and appropriate reuse of Local Authority Cottages and similar vernacular structures.</p> <p>VS 6 Have regard, where appropriate, to guidance in the DAHG Guidelines and conservation best practice in assessing proposed interventions and planning applications relating to vernacular structures, traditional farmhouses, their curtilage, out buildings and settings.</p> <p>Policy Objectives for Historic Gardens, Country Houses and Demesnes</p> <p>CH 1 Ensure that new development will not adversely affect the site, setting or views to and from historic gardens and designed landscapes.</p> <p>CH 2 Require that any proposals for new development in an historic garden or demesne include an appraisal of the landscape, designed views and vistas, and an assessment of significant trees or groups of trees, as appropriate.</p> <p>CH 3 Build on the information compiled as part of the National Survey of Historic Gardens & Designed Landscapes, and to carry out a survey to assess the intactness of these assets, including developing a strategy for their conservation, restoration and development.</p> <p>CH 4 Assess the demesnes and historic designed landscapes within Laois and promote the conservation of their essential character, both built and natural, while allowing for appropriate re-use</p> <p>Policy Objectives for Archaeological Heritage</p> <p>AH 1 Manage development in a manner that protects and conserves the integrity and character of archaeological heritage of the county which avoids adverse impacts on sites, monuments, settings, features or objects of significant historical or archaeological interest and secure the preservation in-situ or by record of all sites and features of historical and archaeological interest.</p> <p>AH 2 Support the preservation or conservation of historically significant street patterns, building lines and plot widths in its towns and villages as well as the preservation of features such as town walls, historic revetments, and public realm features such as granite kerbing, historic drinking fountains, cobbles, vent pipes whether or not they benefit from protection in their own right.</p> <p>AH 3 Protect the intrinsic value, character, integrity and settings of monuments and places in the Record of Monuments and Places (RMPs) and any forthcoming statutory register and protect Zones of Archaeological Potential against inappropriate development.</p> <p>AH 4 In areas of archaeological potential, where groundworks are proposed, ensure that all works are undertaken to the highest standard and the resultant information made publicly available. Developers will be required to have regard to Archaeology and Development: Guidelines for Good Practice for Developers (ICOMOS, 2000) in planning and executing development in sensitive areas. The Council favours the preservation in-situ of archaeological remains, where areas of archaeological potential are located in town centres or villages, preservation of archaeological remains by record will be considered.</p> <p>AH 5 Encourage, where practicable, the provision of public access and signage to sites identified in the Record of Monuments and Places under the direct ownership, guardianship or control of the Council and/or the State.</p> <p>AH 6 Work closely with the relevant State bodies to deliver the conservation objectives of the Rock of Dunamase and redevelopment of Fort Protector to secure funding for the preservation and development of these culturally important sites.</p> <p>AH 7 Require visual impact statements for developments within the area around the Rock of Dunamase in order to assess the potential impacts of development in the area.</p> <p>AH 8 Work with stakeholders including the OPW, the Heritage Council, the Arts Council, local communities, Bord Failte and businesses to support the development of heritage and cultural tourism in County Laois .</p> <p>AH 9 Maximise the potential of Dunrally Viking Fort, as a heritage/cultural and tourism site.</p> <p>AH 10 Protect where appropriate industrial heritage structures or elements of significance identified in the Laois Industrial Archaeology Survey by adding them to the Record of Protected Structures during the lifetime of the Development Plan.</p>

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
		<p>the replacement building on the character of the ACA.</p> <p>AC. P7: Require that proposals for infill development within an Architectural Conservation Area in Carlow-Graiguecullen, and proposals contiguous to an ACA, should include an analysis of how the new development will complement the setting, character, and appearance of the ACA.</p> <p>AC. P8: Reduce, prevent, and encourage the removal of visual and urban clutter within the Architectural Conservation Areas in Carlow-Graiguecullen including, where appropriate: Traffic management structures Utility structures and signage Signage (including signs protruding from the facade) at ground and upper floor levels; Obsolete/unnecessary lighting, electrics, cables, ducts Internally affixed stickers; Internally illuminated signage.</p> <p>AC. P9: Encourage the repair and enhancement of existing shopfronts and the replacement of inappropriate shop fronts where necessary. The design of new shop fronts is required to act in harmony with the upper floor facades to complement and enhance the character of a building and streetscape plots.</p> <p>AHP.10: Require development proposals relating to existing shopfronts or new shopfronts, to include proposals which would, where relevant, incorporate the removal of visually intrusive elements from buildings such as inappropriate signage, lighting and ancillary cables and ducts, and inappropriate materials.</p> <p>AC. O1: Address dereliction and promote appropriate and sensitive reuse and rehabilitation of buildings, building features and sites within the Architectural Conservation Areas located in Carlow-Graiguecullen.</p> <p>VA. P1: Support proposals to retain, repair and refurbish vernacular buildings or structures in the joint urban area that are in a rundown or derelict condition, subject to the use of appropriate traditional building materials and methods and provided that proposals for redevelopment / extensions are of an appropriate design and do not detract from the character of the original building or structure.</p> <p>VA. P2: Promote the protection, retention, public awareness, and appropriate renewal and regeneration of the vernacular buildings and structures not listed in the Records of Protected Structures for Carlow-Graiguecullen.</p> <p>VA. P3: Resist and discourage the demolition of vernacular architecture in Carlow-Graiguecullen, and where appropriate promote the sympathetic</p>	

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
		<p>renewal, maintenance, adaptation, and re-use of historic building stock, and encourage the retention and repair of original fabric such as windows, doors, wall renders, roof coverings, shopfronts, and other significant features, whether protected or not.</p> <p>VA. P4: Ensure proposed redevelopment / extensions to vernacular building stock in Carlow-Graiguecullen are sympathetic to the setting, design, scale, footprint, and materials of the existing buildings. Extensions should generally be located to the rear and not obscure the form or layout of the existing building, the substantial removal of walling is not generally recommended, and connecting the existing building and extension should minimise the number of new openings and ideally use existing openings.</p> <p>VA. P5: Require development proposals affecting vernacular buildings in the joint urban area to be accompanied by a detailed measured survey, photographic record and written report carried out by a professional with appropriate conservation expertise and, preferably, an understanding of vernacular buildings.</p> <p>AH. P1: Secure the preservation (either in situ or by record) of all archaeological monuments in Carlow-Graiguecullen included in the Record of Monuments and Places (RMP) and their settings, and of all sites and features of significant archaeological or historical interest, including potential and previously unknown sites or features, in consultation with the National Monuments Service in the Department of Housing, Local Government and Heritage.</p> <p>AH: P2: Safeguard the archaeological heritage located within the boundary of this JULAP and avoid negative impacts on sites, monuments, features, or objects of significant historical or archaeological interest.</p> <p>AH. P3: Ensure that any development proposal in the joint urban area that may, by reason of location, scale, nature, layout, or design, have potential implications for archaeological heritage (including areas and sites of archaeological potential), shall be subject to an archaeological assessment. The archaeological assessment will seek to ensure that the development proposal can be sited and designed to avoid impacting on archaeological heritage. Any archaeological excavation shall be carried out in accordance with best practice outlined by the NMS, the National Museum of Ireland, and the Institute of Archaeologists of Ireland. In all such cases the relevant local authority shall consult with the National Monuments Service in the Department</p>	

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
		<p>of Housing, Local Government and Heritage.</p> <p>AH. P4: Have regard to the Record of Monuments (RMP) and Places, the OPWs Urban Archaeological Survey for County Carlow (1990), and archaeological sites identified subsequent to the publication of the RMP when assessing planning applications for development. No development shall be permitted in the vicinity of a recorded feature, where it detracts from the setting of the feature or which is injurious to its cultural or educational value.</p> <p>AH. P5: Ensure the protection of the Zone of Archaeological Potential for Carlow-Graigecullen as identified in the Record of Monuments and Places, and the Zone of Notification for archaeology, and to ensure that planning applications in these areas are referred to appropriate statutory consultees.</p> <p>AH. P6: Promote public awareness of the archaeological heritage of Carlow-Graigecullen, and encourage where appropriate and practicable, the provision of appropriately designed and located signage, interpretative material, and public access (including disabled access) for archaeological sites under the direct ownership, guardianship, or control of Carlow County Council and / or Laois County Councils and/or the state.</p> <p>AH. P7: Ensure remains of the historic Carlow Town Walls/Defences are retained where these still exist (including subterranean remains) and to promote public awareness and understanding of the existence and role of the Town Wall/Defences and their route within the built environment.</p> <p>AH. P8: Protect the medieval core of the joint urban area and retain, except in exceptional circumstances, the existing street layout, historic building lines and traditional plot widths where these derive from medieval or earlier origins.</p> <p>AH. P9: Encourage and provide for the protection and maintenance of historic burial grounds within Carlow-Graigecullen, in co-operation with the Office of Public Works and the National Monuments Service in the Department of the Housing, Local Government and Heritage.</p> <p>AH. P10: Protect and conserve underwater archaeological heritage, including that associated with the River Barrow and Burren River, and including potential and previously unknown sites or features, in consultation with the National Monuments Service in the Department of Housing, Local Government and Heritage.</p>	

Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
Landscape	<ul style="list-style-type: none"> Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape. 	<p>Also refer to measures under Biodiversity and Flora and Fauna and Cultural Heritage</p> <p>LC. P1: Protect significant views of landmark structures in Carlow-Graiguecullen.</p> <p>LC. P2: Protect the character and setting of demesne landscapes in Carlow-Graiguecullen, including Oak Park Demesne to the north of the joint urban area and Brownhill Demesne to the east.</p> <p>LC. P3: Protect and enhance the landscape character of the joint urban area, having regard to the assigned Landscape Character Types in Map 10.4 and recommendations in Section 10.4, and to urban gateways, key open spaces, landmark structures, and to important landscape features such as at the River Barrow and Burren River.</p> <p>LC. P4: Ensure that development will not have a disproportionate landscape or visual impact in the joint urban area, due to siting, layout, design, or excessive size or scale.</p> <p>LC. P5: Protect and maintain the landscape quality and visual integrity of river corridors in Carlow-Graiguecullen, including the River Barrow and Burren River.</p> <p>LC. P6: Ensure the effective management of lands adjoining the River Barrow and Burren River and in a manner that maximises views and interactions with these important landscape features in the joint urban area, taking account of the environmental sensitivities of these lands and the need to ensure impacts to biodiversity and nature conservation interests are avoided.</p> <p>LC. P7: Require, where appropriate, Landscape/Visual Impact Assessments to be prepared by suitably qualified professionals, for development proposals which may have significant landscape or visual impacts in the joint urban area, and/or which are located within or adjacent to sensitive landscapes such as river corridors and demesne landscapes.</p> <p>LC. P8: Ensure that features which contribute to local landscape character in Carlow-Graiguecullen, including historic features and buildings, trees, hedgerows, shelter belts and stone walls, are retained, protected, and enhanced where appropriate, so as to preserve the appearance and local landscape character of an area, whilst supporting sustainable landscape change and development. Development proposals necessitating the removal of such features will be discouraged.</p> <p>LC. P9: Preserve historic place and street names in Carlow-Graiguecullen and ensure that the names of all new developments take account of local historical, heritage and cultural</p>	<p>Also refer to measures under Biodiversity and Flora and Fauna and Cultural Heritage</p> <p>Carlow County Development Plan</p> <p>Landscape – Policies and Objectives</p> <p>LA P1: Protect and maintain the overall integrity of the County's landscape, by recognising its capacity to sustainably integrate and absorb appropriate development, and by ensuring that development protects, retains and, where necessary, enhances the appearance and character of the landscape, and does not unduly damage or detract from those features which contribute to its value, character, distinctiveness and sensitivity e.g. landform, habitats, scenic quality, settlement pattern, historic heritage, amenity, land use and tranquillity.</p> <p>LA P2: Ensure that development will not have a disproportionate landscape or visual impact in sensitive upland areas of the County (due to siting, layout, design or excessive scale, height and bulk) and will not significantly interfere with or detract from scenic upland vistas, when viewed from the surrounding environment, including nearby areas, scenic views and routes, and from settlements.</p> <p>LA P3: Adopt a presumption against developments which are located on elevated or visually exposed sites or areas with open exposed vistas, and where the landscape cannot accommodate such development with appropriate mitigation.</p> <p>LA P4: Ensure that developments on steep slopes or ridges will not be conspicuous or have disproportionate landscape or visual impacts when viewed from the surrounding environment, including from nearby areas, scenic views and routes, and from settlements.</p> <p>LA P5: Protect and maintain the landscape quality and visual integrity of river valleys and river corridors, and to ensure development in these sensitive landscape areas does not adversely affect or detract from scenic views, including views from bridges, or from distinct linear sections such as open floodplains.</p> <p>LA P6: Require all developments, having regard to their landscape setting, to be appropriate in siting, layout, design and scale, in order to ensure any potential adverse or landscape and visual impacts are minimised and/or removed where necessary, and that natural site features and characteristics are retained and maintained.</p> <p>LA P7: Facilitate, where appropriate, developments that have a functional and locational requirement to be situated on steep or elevated sites (e.g. reservoir, telecommunication masts or wind energy structures) where residual adverse visual impacts are minimised or mitigated.</p> <p>LA P8: Require, where appropriate, Landscape/Visual Impact Assessments to be prepared by suitably qualified professionals, for development proposals which may have significant landscape or visual impacts, and/or which are located within or adjacent to sensitive landscapes.</p> <p>LA P9: Have regard to the potential for screening vegetation when evaluating proposals for development within the uplands.</p> <p>LA P10: Ensure that features which contribute to local landscape character, including historic features and buildings, trees, hedgerows, shelter belts and stone walls, are retained, protected, and enhanced where appropriate, so as to preserve the appearance and local landscape character of an area, whilst supporting sustainable landscape change and development. Development proposals necessitating the removal of such features will be discouraged.</p> <p>LA P11: Protect and preserve the established appearance and aesthetic attributes of views and prospects that contribute to the inherent quality of the County's landscape, including views, prospects and scenic routes listed in Tables 9.3 and 9.4, and particularly views to and from mountains, hills, river valleys and river corridors, and views of historical or cultural value (including buildings and townscapes) and views of natural beauty.</p> <p>LA O1: Ensure that the management and assessment of development throughout the County takes account of the recommendations and assigned Landscape Character Areas, Landscape Types, and Landscape Sensitivity, and the Schedule of Views, Prospects and Scenic Routes, as contained in this Plan, and in accordance with Government Guidance on Landscape Character Assessment and the National Landscape Strategy.</p> <p>LA O2: Ensure landscape/visual impact assessment will be a key consideration in the assessment of development proposals within the County.</p> <p>Laois County Development Plan</p> <p>Policy Objectives for Landscape Character Areas</p> <p>LCA 1 Ensure that consideration of landscape sensitivity, as indicated in Table 11.6 of the Plan, is an important factor in determining development uses. In areas of high landscape sensitivity, the design, type and the choice of location of proposed development in the landscape will also be critical considerations</p> <p>LCA 2 Protect and enhance the county's landscape, by ensuring that development retains, protects and, where necessary, enhances the appearance and character of the existing local landscape and conserve valuable habitat including any European and National Designations</p> <p>LCA 3 Seek to ensure that local landscape features, including historic features and buildings, hedgerows, shelter belts and stone walls, are retained, protected and enhanced where appropriate, so as to preserve the local landscape and character of an area, whilst providing for future development</p> <p>LCA 4 Seek to minimise the individual and cumulative adverse visual impacts that local concentrations of one-off housing, outside of settlements, may have on Hills and Upland, River Corridor and Lakes and Mountain landscape character areas or High Sensitivity areas. In this regard, in locations where the Council considers that there is a risk of individual or cumulative adverse impacts, the Council will only consider proposals for housing developments where a need for the dwelling has been demonstrated in accordance with the criteria contained in the Rural Housing Policy contained in Chapter 4</p> <p>Policy Objectives for Hills and Uplands Areas and Mountain Areas</p> <p>LCA 5 Ensure that development will not have a disproportionate visual impact (due to excessive bulk, scale or inappropriate siting) and will not significantly interfere with or detract from scenic upland vistas, when viewed from areas nearby, scenic routes, viewpoints and settlements</p> <p>LCA 6 Ensure that developments on steep slopes (i.e. >10%) will not be conspicuous or have a disproportionate visual impact on the surrounding environment as seen from relevant scenic routes, viewpoints and settlements</p> <p>LCA 7 Facilitate, where appropriate, developments that have a functional and locational requirement to be situated on steep or elevated sites (e.g. reservoirs, telecommunication masts or wind energy structures) where residual adverse visual impacts are minimised or mitigated</p>

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Topic	Potentially Significant Adverse Effect, if Unmitigated	Draft Local Area Plan measures, including:	Existing Carlow and Laois County Development Plans measures, including:
		<p>associations in the joint urban area.</p> <p>LC. O1: Ensure that landscape/visual impact assessment will be a key consideration in the assessment of development proposals in Carlow-Graiguecullen.</p> <p>LC. O2: Ensure that the management and assessment of development in Carlow-Graiguecullen takes account of the recommendations and assigned Landscape Character Types detailed in Section 10.4 and Map 10.4.</p>	<p>LCA 8 Maintain the visual integrity of areas which have retained a largely undisturbed upland character and Respect the remote character and existing low-density development in these areas.</p> <p>LCA 9 Have regard to the potential for screening vegetation when evaluating proposals for development within the uplands</p> <p>LCA 10 Actively propose the designation of the Slieve Blooms as a Special Amenity Area and seek an Order to that effect.</p> <p>LCA 11 Protect the positive contribution that views across adjacent lowland areas and landmarks within the landscape make to the overall landscape character.</p> <p>Policy Objectives for Lowland Agricultural Areas</p> <p>LCA 12 Recognise that this lowland landscape character area includes areas of significant landscape and ecological value, which are worthy of protection, particularly the 18th and 19th century estate landscapes and associated parkland & woodland to develop them as a tourism resource.</p> <p>LCA 13 Continue to permit development that can utilise existing structures, settlement areas and infrastructure, whilst taking account of the visual absorption opportunities provided by existing topography and vegetation</p> <p>LCA 14 Recognise that the lowlands are made up of a variety of working landscapes, which are critical resources for sustaining the economic and social wellbeing of the county</p> <p>LCA 15 Promote good agricultural practices to create a sustainable rural economy and support incentives for smaller rural/family farms to manage their land to avoid loss of hedgerows and field patterns.</p> <p>Policy Objectives for River Corridors and Lakes Areas</p> <p>LCA 16 Recognise the importance of river corridors for scenic value, ecology, history, culture and for recreational purposes such as walking, cycling and various on-water activities;</p> <p>LCA 17 Maintain the rivers throughout the county whilst ensuring that all works are carried out subject to appropriate environmental assessment in accordance with Article 6 of the Habitats Directive, in respect of any proposed development likely to have an impact on a designated natural heritage site, site proposed to be designated and any additional sites that may be designated during the period of this Plan</p> <p>LCA 18 Preserve riverside historic features and their landscape settings and Conserve valuable habitats focused on and around river corridors and estuaries including European and national designations</p> <p>LCA 19 Recognise the potential constraints on development created by river flood plains and the value of these flood plains as increasingly rare habitats</p> <p>LCA 20 Avoid unsustainable exploitation of watercourses, e.g. for abstraction and dilution of effluent, to the point that these water courses lose their ecological and amenity value</p> <p>LCA 21 Collaborate with the National Parks and Wildlife Service, Waterways Ireland and other relevant stakeholders to facilitate public access to waterway corridors and maintain and enhance the natural character of rivers, lakes and canals by reserving land to facilitate walking, cycling and other non-noise generating recreational activities</p> <p>LCA 22 Explore the establishment of the Barrow/Nore Valley and the Grand Canal as Areas of Special Amenity, as per section 202 of the Planning and Development Act 2000 (as amended)</p> <p>Policy Objectives for Peatland Areas</p> <p>LCA 23 Recognise the importance of peatlands for ecology, history, culture and for alternative energy production</p> <p>LCA 24 Conserve valuable habitats including any European and national designations</p> <p>LCA 25 Support the identification of projects that have the potential to achieve commercial value such as industrial developments, renewable energy, tourism developments etc. while at the same time promoting high environmental standards and supporting Biodiversity objectives</p> <p>LCA 26 Support the restoration of peatlands on suitable sites</p> <p>LCA 27 Recognise that intact boglands are critical natural resources for ecological and environmental reasons and recognise that cutaway and cut-over boglands represent degraded landscapes and/or brownfield sites and thus are potentially robust to absorb a variety of appropriate developments</p> <p>Policy Objectives for Urban Fringe Areas</p> <p>LCA 28 Diversify the urban fringe by developing mixed-use amenity areas, which will create a landscape buffer creating a transition between urban and rural areas</p> <p>LCA 29 Define the urban fringe with planting of native species and mixed woodland to tie into existing rural landscape</p> <p>Policy Objectives for Rolling Hill Areas</p> <p>LCA 30 Maintain the visual integrity of rolling hill areas which have retained an upland character</p> <p>LCA 31 Continue to facilitate appropriate development, in an incremental and clustered manner, where feasible, that respects the scale, character and sensitivities of the local landscape, recognising the need for sustainable settlement patterns and economic activity within the county</p> <p>LCA 32 Continue to permit development that can utilise existing infrastructure, whilst taking account of local absorption opportunities provided by the landscape, landform and prevailing vegetation</p> <p>Policy Objectives for Views and Prospects</p> <p>SV 1 Protect views from designated scenic routes indicated in Table 11.7 and Map 11.8 (Scenic Views and Prospects in County Laois) of the Plan, by avoiding any development that could disrupt the vistas or disproportionately impact on the landscape character of the area, thereby affecting the scenic and amenity value of the views.</p> <p>SV 2 Review and update all Scenic Routes and Views in the county during the lifetime of the Plan.</p>

Section 10 Monitoring Measures

10.1 Introduction

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. This section details the measures which will be used in order to monitor the likely significant effects of implementing the Plan.

Monitoring can both demonstrate the positive effects facilitated by the Plan and can enable, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action.

The occurrence of significant adverse environmental effects not predicted and mitigated by this assessment, which are directly attributable to the implementation of the Plan, would necessitate consideration of these effects in the context of the Plan and potential remediation action(s) and/or review of part(s) of the Plan.

10.2 Indicators and Targets

Monitoring is based around indicators which allow quantitative measures of trends and progress over time relating to the Strategic Environmental Objectives identified in Section 5 and used in the evaluation. Each indicator to be monitored is accompanied by the target(s) which were identified with regard to the relevant strategic actions. Given the position of the Local Area Plan in the land use planning hierarchy beneath the Carlow and Laois County Development Plans, the measures identified in those County Development Plan SEAs have been used as they are or having been slightly modified – in most instances. This consistency across the hierarchy of land use plans will improve the efficiency and effectiveness of future monitoring.

Table 10.1 overleaf shows the indicators and targets which have been selected for monitoring the likely significant environmental effects of implementing the Plan, if unmitigated.

Monitoring is an ongoing process and the programme allows for flexibility and the

further refinement of indicators and targets. The Monitoring Programme may be updated to deal with specific environmental issues – including unforeseen effects – as they arise.

10.3 Sources

The Plan forms part of the wider land use planning framework comprising a hierarchy of policies, plans, programmes, etc. This wider framework, including the National Planning Framework, Eastern and Midland RSES, Southern RSES and Carlow and Laois County Development Plans is subject to its own SEA (and associated monitoring) requirements. Individual projects will be subject to their own monitoring requirements as relevant.

In implementing the Monitoring Programme, the Councils will take into account this hierarchy of planning and environmental monitoring.

Sources for indicators may include existing monitoring databases (including those maintained by planning authorities and national/regional government departments and agencies) and the output of lower-tier environmental assessment and decision making (including a review of project approvals granted and associated documents and the output of any EIA monitoring programmes).

Internal monitoring of the environmental effects of grants of permission in the Councils would provide monitoring of certain indicators on a *grant of permission*⁶⁶ basis. Where significant adverse effects as a result of the development to be permitted are identified, such effects could be identified, recorded and used to inform monitoring evaluation.

⁶⁶ The likely significant effects of development proposals on environmental sensitivities are further determined during the development management process. Documenting any identified effects as a result of a development to be permitted can help to fulfill monitoring requirements.

10.4 Reporting

A stand-alone Monitoring Report on the significant environmental effects of implementing the Plan will be prepared in advance of the beginning of the review of the Plan. This report should address the indicators set out on Table 10.1.

Interim reporting may be undertaken as part of reporting on the County Development Plans and other Local Area Plans.

The Councils are 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 Indicators, Targets, Sources and Remedial Action

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
Biodiversity, Flora and Fauna	BFF	<ul style="list-style-type: none"> Condition of European sites 	<ul style="list-style-type: none"> Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions in their land use plans and as a minimum, to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species Implement and review, as relevant, County Heritage and Biodiversity Plans 	<ul style="list-style-type: none"> DHLGH report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive (every 6 years)⁶⁷ DHLGH National Birds Directive Monitoring Report for the under Article 12 (every 3 years)⁶⁸ Consultations with the NPWS (see Section 10.4)⁶⁹ 	<ul style="list-style-type: none"> Where condition of European sites is found to be deteriorating this will be investigated with the Regional Assemblies and the DHLGH to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance.
		<ul style="list-style-type: none"> Number of spatial plans that have included ecosystem services content, mapping and policy to protect ecosystem services when their relevant plans are either revised or drafted 	<ul style="list-style-type: none"> Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions in their land use plans and as a minimum, to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species Implement and review, as relevant, County Heritage and Biodiversity Plans 	<ul style="list-style-type: none"> Internal review of local land use plans 	<ul style="list-style-type: none"> Review internal systems
		<ul style="list-style-type: none"> SEAs and AAs as relevant for new Council policies, plans, programmes etc. 	<ul style="list-style-type: none"> Screen for and undertake SEA and AA as relevant for new Council policies, plans, programmes etc. 	<ul style="list-style-type: none"> Internal monitoring of preparation of local land use plans 	<ul style="list-style-type: none"> Review internal systems
		<ul style="list-style-type: none"> Status of water quality in water bodies 	<ul style="list-style-type: none"> Included under Water below 	<ul style="list-style-type: none"> Included under Water below 	<ul style="list-style-type: none"> Included under Water below
		<ul style="list-style-type: none"> Compliance of planning permissions with Plan measures providing for the protection of Biodiversity and flora and fauna – see County Development Plan Chapters 10 “Natural and Built Heritage” (Carlow) and 11 “Biodiversity and Natural Heritage” (Laois) 	<ul style="list-style-type: none"> For planning permission to be only granted when applications demonstrate that they comply with all Plan measures providing for the protection of biodiversity and flora and fauna – see County Development Plan Chapters 10 “Natural and Built Heritage” (Carlow) and 11 “Biodiversity and Natural Heritage” (Laois) 	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission 	<ul style="list-style-type: none"> Review internal systems

⁶⁷ Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on European sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

⁶⁸ Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on European sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

⁶⁹ Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on European sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

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Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
Population and Human Health	PHH	<ul style="list-style-type: none"> Implementation of Plan measures relating to the promotion of economic growth as provided for by County Development Plan Chapter 4 "Enterprise and Employment" (Carlow) and Chapter 6 "Economic Development" (Laois) 	<ul style="list-style-type: none"> For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to the promotion of economic growth as provided for by County Development Plan Chapter 4 "Enterprise and Employment" (Carlow) and Chapter 6 "Economic Development" (Laois) All citizens will have access to speeds of 30Mbps, and that 50% of citizens will be subscribing to speeds of 100Mbps (Also relevant to Material Assets) 	<ul style="list-style-type: none"> Internal review of progress on implementing Plan objectives Consultations with DECC (see Section 10.4) 	<ul style="list-style-type: none"> Review internal systems Consultations with DECC
		<ul style="list-style-type: none"> Number of spatial concentrations of health problems arising from environmental factors resulting from development permitted under the Plan 	<ul style="list-style-type: none"> No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan 	<ul style="list-style-type: none"> Consultations with the Health Service Executive and EPA 	<ul style="list-style-type: none"> Consultations with the Health Service Executive and EPA
		<ul style="list-style-type: none"> Proportion of people reporting regular cycling / walking to school and work above previous CSO figures 	<ul style="list-style-type: none"> Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures 	<ul style="list-style-type: none"> CSO data Monitoring of Carlow and Laois County Councils' Climate Change Adaptation Strategies 2019-2024 	<ul style="list-style-type: none"> Where proportion of population shows increase in private car use above previous CSO figures, the Councils will coordinate with the Regional Assemblies, the DHLGH, DECC and NTA to develop a tailored response.
		<ul style="list-style-type: none"> Number of spatial plans that include specific green infrastructure mapping 	<ul style="list-style-type: none"> Require all local level land use plans to include specific green infrastructure mapping 	<ul style="list-style-type: none"> Internal review of local land use plans 	<ul style="list-style-type: none"> Review internal systems
Soil (and Land)	S	<ul style="list-style-type: none"> Proportion of population growth occurring on infill and brownfield lands compared to greenfield (also relevant to Material Assets) 	<ul style="list-style-type: none"> Maintain built surface cover nationally to below the EU average of 4% as per the NPF In accordance with National Policy Objectives 3c of the National Planning Framework, a minimum of 30% of the housing growth targeted in any settlement is to be delivered within the existing built-up footprint of the settlement To map brownfield and infill land parcels 	<ul style="list-style-type: none"> EPA Geoportal Compilation of greenfield and brownfield development for the DHLGH AA/Screening for AA for each application 	<ul style="list-style-type: none"> Where the proportion of growth on infill and brownfield sites is not keeping pace with the targets set in the NPF and the RSEs, the Councils will liaise with the Regional Assemblies to establish reasons and coordinate actions to address constraints to doing so.
		<ul style="list-style-type: none"> Instances where contaminated material generated from brownfield and infill must be disposed of 	<ul style="list-style-type: none"> Dispose of contaminated material in compliance with EPA guidance and waste management requirements 	<ul style="list-style-type: none"> Internal review of grants of permission where contaminated material must be disposed of 	<ul style="list-style-type: none"> Consultations with the EPA and Development Management
		<ul style="list-style-type: none"> Environmental assessments and AAs as relevant for applications for brownfield and infill development prior to planning permission 	<ul style="list-style-type: none"> Screen for and undertake environmental assessments and AA as relevant for applications for brownfield and infill development prior to planning permission 	<ul style="list-style-type: none"> Internal monitoring of grants of permission 	<ul style="list-style-type: none"> Review internal systems

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
Water	WV	<ul style="list-style-type: none"> Status of water bodies as reported by the EPA Water Monitoring Programme for the WFD 	<ul style="list-style-type: none"> Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status' Implementation of the objectives of the River Basin Management Plan 	<ul style="list-style-type: none"> EPA Monitoring Programme for WFD compliance ⁷⁰ 	<ul style="list-style-type: none"> Where water bodies are failing to meet at least good status this will be investigated with the DHLGH Water Section, the EPA Catchment Unit, the Regional Assembly and, as relevant, Uisce Éireann to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance. Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the WWTP to meet Emission Limit Values, the Councils will consider whether it is necessary to coordinate a response with the Regional Assemblies, EPA and Uisce Éireann to achieve the necessary capacity.
		<ul style="list-style-type: none"> Number of incompatible developments permitted within flood risk areas 	<ul style="list-style-type: none"> Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk 	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission 	<ul style="list-style-type: none"> Where planning applications are being permitted on flood zones, the Councils will ensure that such grants are in compliance with the Flood Risk Management Guidelines and include appropriate flood risk mitigation and management measures.
Material Assets	MA	<ul style="list-style-type: none"> Programmed delivery of Uisce Éireann infrastructure for all key growth towns in line with Uisce Éireann Investment Plan and prioritisation programme to ensure sustainable growth can be accommodated Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Plan 	<ul style="list-style-type: none"> All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan Where septic tanks are proposed, for planning permission to be only granted when applications demonstrate that the outfall from the septic tank will not – in combination with other septic tanks – contribute towards any surface or ground water body not meeting the objective of good status under the Water Framework Directive Facilitate, as appropriate, Uisce Éireann in developing water and wastewater infrastructure See also targets relating to greenfield and brownfield development of land under Soil and broadband under Population and Human Health 	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission Consultations with the Uisce Éireann (see Section 10.4) DHLGH in conjunction with Local Authorities 	<ul style="list-style-type: none"> Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the WWTP to meet Emission Limit Values, the Councils will consider whether it is necessary to coordinate a response with the Regional Assemblies, EPA and Uisce Éireann to achieve the necessary capacity.
		<ul style="list-style-type: none"> Proportion of people reporting regular cycling / walking to school and work above previous CSO figures 	<ul style="list-style-type: none"> Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures 	<ul style="list-style-type: none"> CSO data Monitoring of Carlow and Laois County Councils' Climate Change Adaptation Strategies 2019-2024 	<ul style="list-style-type: none"> Where proportion of population shows increase in private car use above previous CSO figures, the Councils will coordinate with the Regional Assemblies, the DHLGH, DECC and NTA to develop a tailored response.

⁷⁰ Including monitoring of water quality and nitrogen deposition due to bioenergy and agricultural projects where available
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Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
Air	A	<ul style="list-style-type: none"> Proportion of journeys made by private fossil fuel-based car compared to previous National Travel Survey levels NO_x, SO_x, PM10 and PM2.5 as part of Ambient Air Quality Monitoring 	<ul style="list-style-type: none"> Decrease in proportion of journeys made by private fossil fuel-based car compared to previous National Travel Survey levels Improvement in Air Quality trends, particularly in relation to transport related emissions of NO_x and particulate matter 	<ul style="list-style-type: none"> CSO data Data from the National Travel Survey EPA Air Quality Monitoring Consultations with Department of Transport and Department of Environment, Climate and Communications (see Section 10.4) 	<ul style="list-style-type: none"> Where proportion of population shows increase in private car use above previous CSO figures, Council will coordinate with the Regional Assemblies, DHLGH, DECC and NTA to develop a tailored response. See also entry under Population and human health above
Climatic Factors	C	<ul style="list-style-type: none"> Implementation of Plan measures relating to climate reduction targets 	<ul style="list-style-type: none"> For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to climate reduction targets 	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission 	<ul style="list-style-type: none"> Review internal systems
		<ul style="list-style-type: none"> A competitive, low-carbon, climate-resilient and environmentally sustainable economy 	<ul style="list-style-type: none"> Contribute towards transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050 	<ul style="list-style-type: none"> Monitoring of Carlow and Laois County Councils' Climate Change Adaptation Strategies 2019-2024 EPA Annual National Greenhouse Gas Emissions Inventory reporting Climate Action Regional Office Consultations with DECC (at monitoring evaluation - see Section 10.4) 	<ul style="list-style-type: none"> Where targets are not achieved, the Councils will liaise with the Regional Assemblies and the Eastern and Midlands Climate Action Regional Office to establish reasons and develop solutions.
		<ul style="list-style-type: none"> Share of renewable energy in transport 	<ul style="list-style-type: none"> Contribute towards the target of the Renewable Energy Directive (2009/28/EC), for all Member States to reach a 10% share of renewable energy in transport by facilitating the development of electricity charging and transmission infrastructure, in compliance with the provisions of the Plan 		
		<ul style="list-style-type: none"> Energy consumption, the uptake of renewable options and solid fuels for residential heating 	<ul style="list-style-type: none"> To promote reduced energy consumption and support the uptake of renewable options and a move away from solid fuels for residential heating 	<ul style="list-style-type: none"> CSO data Monitoring of Carlow and Laois County Councils' Climate Change Adaptation Strategies 2019-2024 	<ul style="list-style-type: none"> Where trends toward carbon reduction are not recorded, the Councils will liaise with the Regional Assemblies and the Eastern and Midlands Climate Action Regional Office to establish reasons and develop solutions.
		<ul style="list-style-type: none"> Proportion of journeys made by private fossil fuel-based car compared to previous levels 	<ul style="list-style-type: none"> Decrease in the proportion of journeys made by residents of the using private fossil fuel-based car compared to previous levels 		
		<ul style="list-style-type: none"> Proportion of people reporting regular cycling / walking to school and work above previous CSO figures 	<ul style="list-style-type: none"> Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures 		

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
Cultural Heritage	CH	<ul style="list-style-type: none"> Percentage of entries to the Record of Monuments and Places, and the context these entries within the surrounding landscape where relevant, protected from adverse effects resulting from development which is granted permission under the Plan 	<ul style="list-style-type: none"> Protect entries to the Record of Monuments and Places, and the context of these entries within the surrounding landscape where relevant, from adverse effects resulting from development which is granted permission under the Plan 	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission 	<ul style="list-style-type: none"> Where monitoring reveals visitor or development pressure is causing negative effects on designated archaeological or architectural heritage, the Councils will work with Regional Assemblies, Fáilte Ireland and the National Monuments Service and other stakeholders, as relevant, to address pressures through additional mitigation.
		<ul style="list-style-type: none"> Percentage of entries to the Record of Protected Structures and Architectural Conservation Areas and their context protected from significant adverse effects arising from new development granted permission under the Plan 	<ul style="list-style-type: none"> Protect entries to the Record of Protected Structures and Architectural Conservation Areas and their context from significant adverse effects arising from new development granted permission under the Plan 	<ul style="list-style-type: none"> Consultation with DHLGH (see Section 10.4). 	
Landscape	L	<ul style="list-style-type: none"> Number of developments permitted that result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan 	<ul style="list-style-type: none"> No developments permitted which result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan 	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission 	<ul style="list-style-type: none"> Where monitoring reveals developments permitted which result in avoidable adverse visual impacts on the landscape, the Councils will re-examine Plan provisions and the effectiveness of their implementation

Appendix I Relationship with Legislation and Other Policies, Plans and Programmes

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

Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
European Level			
SEA Directive (2001/42/EC)	<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. 	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 (see Section 8.2) may arise. 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.
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. 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"> All projects listed in Annex I are considered as having significant effects on the environment and require an EIA. For projects listed in Annex II, a "screening procedure" is required to determine the effects of projects on the basis of thresholds/criteria or a case by case examination. This should take into account Annex III. The environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case and in accordance with Articles 4 to 12, the direct and indirect effects of a project on the following factors: human beings, fauna and flora, soil, water, air, climate and the landscape, material assets and the cultural heritage, the interaction between each factor. Consult with relevant authorities, stakeholders and public allowing sufficient time to make a submission before a decision is made. 	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 (see Section 8.2) may arise. 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.
Habitats Directive (92/43/EEC)	<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. 	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 (see Section 8.2) may arise. 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.
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. 	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 (see Section 8.2) may arise. 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.
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 set periods when land spreading is prohibited due to risk set capacity levels for the storage of livestock manure 	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 (see Section 8.2) may arise. 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. –

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Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
EU Integrated Pollution Prevention Control Directive (2008/1/EC)	<ul style="list-style-type: none"> The purpose of this Directive is to achieve integrated prevention and control of pollution arising from the activities listed in Annex I. It lays down measures designed to prevent or, where that is not practicable, to reduce emissions in the air, water and land from the abovementioned activities, including measures concerning waste, in order to achieve a high level of protection of the environment taken as a whole, without prejudice to Directive 85/337/EEC and other relevant Community provisions. 	<p>The IPPC Directive is based on several principles:</p> <ul style="list-style-type: none"> an integrated approach best available techniques, flexibility; and public participation 	<p>the achievement of the objectives of the regulatory framework for environmental protection and management.</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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
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>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
EU Renewables Directive (2009/28/EC)	<ul style="list-style-type: none"> The Renewable Energy Directive establishes an overall policy for the production and promotion of energy from renewable sources in the EU. It requires the EU to fulfil at least 20% of its total energy needs with renewables by 2020 – to be achieved through the attainment of individual national targets. All EU countries must also ensure that at least 10% of their transport fuels come from renewable sources by 2020. 	<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>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Indirect Land Use Change Directive (2012/0288(COD))	<ul style="list-style-type: none"> Article 3(4) of Directive 2009/28/EC of the European Parliament and of the Council (3) requires Member States to ensure that the share of energy from renewable energy sources in all forms of transport in 2020 is at least 10 % of their final energy consumption. The blending of biofuels is one of the methods available for Member States to meet this target, and is expected to be the main contributor. Other methods available to meet the target are the reduction of energy consumption, which is imperative because a mandatory percentage target for energy from renewable sources is likely to become increasingly difficult to achieve sustainably if overall demand for energy for transport continues to rise, and the use of electricity from renewable energy sources. 	<ul style="list-style-type: none"> Limit the contribution that conventional biofuels (with a risk of ILUC emissions) make towards attainment of the targets in the Renewable Energy Directive; Improve the greenhouse gas performance of biofuel production processes (reducing associated emissions) by raising the greenhouse gas saving threshold for new installations subject to protecting installations already in operation on 1st July 2014; Encourage a greater market penetration of advanced (low-ILUC) biofuels by allowing such fuels to contribute more to the targets in the Renewable Energy Directive than conventional biofuels; Improve the reporting of greenhouse gas emissions by obliging Member States and fuel suppliers to report the estimated indirect land-use change emissions of biofuels. 	<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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Alternative Fuels Infrastructure Directive (2014/94/EU)	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
EU Energy Efficiency Directive (2012/27/EU)	<ul style="list-style-type: none"> Establishes a set of binding measures to help the EU reach its 20% energy efficiency target by 2020. Under the Directive, all EU countries are required to use energy more efficiently at all stages of the energy chain, from production to final consumption. 	<ul style="list-style-type: none"> Energy distributors or retail energy sales companies have to achieve 1.5% energy savings per year through the implementation of energy efficiency measures EU countries can opt to achieve the same level of savings through other means, such as improving the efficiency of heating systems, installing double glazed windows or insulating roofs The public sector in EU countries should purchase energy efficient buildings, products and services Every year, governments in EU countries must carry out energy efficient renovations 	<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 (see Section 8.2) may arise. 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. –</p>

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		<ul style="list-style-type: none"> on at least 3% (by floor area) of the buildings they own and occupy Energy consumers should be empowered to better manage consumption. This includes easy and free access to data on consumption through individual metering National incentives for SMEs to undergo energy audits Large companies will make audits of their energy consumption to help them identify ways to reduce it Monitoring efficiency levels in new energy generation capacities. 	the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Seveso Directive (2012/18/EU)	<ul style="list-style-type: none"> 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>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:</p> <ul style="list-style-type: none"> 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. 	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 (see Section 8.2) may arise. 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.
Biodiversity Strategy for 2030 - Bringing nature back into our lives (European Commission, 2020)	<ul style="list-style-type: none"> 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>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. 	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 (see Section 8.2) may arise. 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.
EU Green Infrastructure Strategy	Aims to create a robust enabling framework in order to promote and facilitate Green Infrastructure (GI) projects.	<ul style="list-style-type: none"> Promoting GI in the main EU policy areas. Supporting EU-level GI projects. Improving access to finance for GI projects. Improving information and promoting innovation. 	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 (see Section 8.2) may arise. 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.
UN Kyoto Protocol (2nd Kyoto Period), the Second European Climate Change Programme (ECCP II), Paris climate conference (COP21) 2015 (Paris Agreement)	<p>The UN Kyoto Protocol set of policy measures to reduce greenhouse gas emissions.</p> <p>The Second European Climate Change Programme (ECCP II) aims to identify and develop all the necessary elements of an EU strategy to implement the Kyoto Protocol.</p> <p>At the Paris climate conference (COP21) in December 2015, 195 countries adopted the first-ever universal, legally binding global climate deal. 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. 	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 (see Section 8.2) may arise. 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.
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. 	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 (see Section 8.2) may arise. 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.
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 	To meet the targets, the European Commission has proposed the following policies for 2030:	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc.,

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	<p>been agreed by European countries.</p> <ul style="list-style-type: none"> 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"> 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>individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>The Clean Air for Europe Directive (2008/50/EC) (EU Air Framework Directive)</p> <p>Fourth Daughter Directive (2004/107/EC)</p>	<ul style="list-style-type: none"> The CAFE Directive merges existing legislation into a single directive (except for the fourth daughter directive). Sets new air quality objectives for PM_{2.5} (fine particles) including the limit value and exposure related objectives. Accounts for the possibility to discount natural sources of pollution when assessing compliance against limit values. Allows the possibility for time extensions of three years (PM₁₀) or up to five years (NO₂, benzene) for complying with limit values, based on conditions and the assessment by the European Commission. The Fourth Daughter Directive lists pollutants, target values and monitoring requirements for the following: arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air. 	<ul style="list-style-type: none"> Sets objectives for ambient air quality designed to avoid, prevent or reduce harmful effects on human health and the environment as a whole. Aims to assess the ambient air quality in Member States on the basis of common methods and criteria. Obtains information on ambient air quality in order to help combat air pollution and nuisance and to monitor long-term trends and improvements resulting from national and community measures. Ensures that such information on ambient air quality is made available to the public. Aims to maintain air quality where it is good and improving it in other cases. Aims to promote increased cooperation between the Member States in reducing air pollution. 	<p>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Noise Directive (2002/49/EC)</p>	<p>The Noise Directive - Directive 2002/49/EC relating to the assessment and management of environmental noise - is part of an EU strategy setting out to reduce the number of people affected by noise in the longer term and to provide a framework for developing existing Community policy on noise reduction from source.</p>	<p>The Directive requires competent authorities in Member States to:</p> <ul style="list-style-type: none"> Draw up strategic noise maps for major roads, railways, airports and agglomerations, using harmonised noise indicators and use these maps to assess the number of people which may be impacted upon as a result of excessive noise levels; Draw up action plans to reduce noise where necessary and maintain environmental noise quality where it is good; and 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>	<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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Floods Directive (2007/60/EC)</p>	<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>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Water Framework Directive (2000/60/EC)</p>	<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 Groundwater (Dangerous Substances) Directive Dangerous Substances 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>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Groundwater Directive (2006/118/EC)</p>	<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>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination</p>

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Drinking Water Directive (98/83/EC)	<ul style="list-style-type: none"> Improve and maintain the quality of water intended for human consumption. Protect human health from the adverse effects of any contamination of water intended for human consumption by ensuring that it is wholesome and clean. 	<ul style="list-style-type: none"> Set values applicable to water intended for human consumption for the parameters set out in Annex I. Set values for additional parameters not included in Annex I, where the protection of human health within national territory or part of it so requires. The values set should, as a minimum, satisfy the requirements of Article 4(1) (a). Implement all measures necessary to ensure that regular monitoring of the quality of water intended for human consumption is carried out, in order to check that the water available to consumers meets the requirements of this Directive and in particular the parametric values set in accordance with Article 5. Ensure that any failure to meet the parametric values set in accordance with Article 5 is immediately investigated in order to identify the cause. Ensure that the necessary remedial action is taken as soon as possible to restore its quality and shall give priority to their enforcement action. Undertake remedial action to restore the quality of the water where necessary to protect human health. Notify consumers when remedial action is being undertaken except where the competent authorities consider the non-compliance with the parametric value to be trivial. 	<p>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>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
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>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Environmental Liability Directive (2004/35/EC) as amended by Directive 2006/21/EC, Directive 2009/31/EC and Directive 2013/30/EU	<ul style="list-style-type: none"> Establish a framework of environmental liability based on the 'polluter-pays' principle, to prevent and remedy environmental damage. 	<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. 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. 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>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

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European Convention on the Protection of the Archaeological Heritage (Valletta 1992)	<ul style="list-style-type: none"> 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>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>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Convention of the Protection of the Architectural Heritage of Europe (Granada 1995)	<ul style="list-style-type: none"> The main purpose of the Convention is to reinforce and promote policies for the conservation and enhancement of Europe's heritage. It also affirms the need for European solidarity with regard to heritage conservation and is designed to foster practical co-operation among the Parties. It establishes the principles of "European co-ordination of conservation policies" including consultations regarding the thrust of the policies to be implemented. 	<ul style="list-style-type: none"> The reinforcement and promotion of policies for protecting and enhancing the heritage within the territories of the parties. The affirmation of European solidarity with regard to the protection of the heritage and the fostering of practical co-operation between states and regions. 	<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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
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. A heritage community consists of people who value specific aspects of cultural heritage which they wish, within the framework of public action, to sustain and transmit to future generations. 	<ul style="list-style-type: none"> Recognise that rights relating to cultural heritage are inherent in the right to participate in cultural life, as defined in the Universal Declaration of Human Rights. Recognise individual and collective responsibility towards cultural heritage. Emphasise that the conservation of cultural heritage and its sustainable use have human development and quality of life as their goal. Take the necessary steps to apply the provisions of this Convention concerning the role of cultural heritage in the construction of a peaceful and democratic society. Greater synergy of competencies among all the public, institutional and private actors concerned. 	<p>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
European Landscape Convention 2000	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Promote protection, management and planning of landscapes. Organise European co-operation on landscape issues. 	<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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
The Seventh Environmental Action Programme (EAP) of the European Community (2013-2020)	<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>Two additional horizontal priority objectives complete the programme:</p> <ul style="list-style-type: none"> To make the Union's cities more sustainable. To help the Union address international environmental and climate challenges more effectively. 	<p>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
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. 	<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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

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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 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"> Created the Emerald Network, an ecological network made up of Areas of Special Conservation Interest. <p>The Bali Action Plan is centred on four main building Blocks:</p> <ul style="list-style-type: none"> mitigation adaptation technology financing 	<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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Cancun Agreements (2010)	<p>Set of decisions taken at the COP 16 Conference in Cancun in 2010 which addresses a series of key issues in the fight against climate change. Cancun Agreements' main objectives cover:</p> <ul style="list-style-type: none"> Mitigation Transparency of actions Technology Finance Adaptation Forests Capacity building 	<p>Among the most prominent agreements is the establishment of a Green Climate Fund to transfer money from the developed to developing world to tackle the impacts of climate change.</p>	<p>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Doha Climate Gateway (2012)	<p>Set of decisions taken at the COP 18 meeting in Doha in 2012 which pave the way for a new agreement in Paris in 2015.</p>	<ul style="list-style-type: none"> Set out a timetable to adopt a universal climate agreement by 2015 (to come into effect in 2020); Complete the work under Bali Action Plan and to focus on new completing new targets; Strengthen the aim to cut greenhouse gases and help vulnerable countries to adapt; Amend Kyoto Protocol to include a new commitment period for cutting down the greenhouse gases emissions; and Provide the financial and technology support and new institutions to allow clean energy investment and sustainable growth in developing countries. 	<p>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
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. 	<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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
EU REACH Regulation (EC 1907/2006)	<ul style="list-style-type: none"> Aims to improve the protection of human health and the environment through the better and earlier identification of the intrinsic properties of chemical substances. 	<p>The aims are achieved by applying REACH, namely:</p> <ul style="list-style-type: none"> Registration, Evaluation, Authorisation; and Restriction of chemicals. <p>REACH also aims to enhance innovation and competitiveness of the EU chemicals industry.</p>	<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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Stockholm Convention	<ul style="list-style-type: none"> 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 Other provisions of the Convention relate to the development of implementation plans, information exchange, public information, awareness and education, 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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

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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".	development and monitoring, technical assistance, financial resources and mechanisms, reporting, effectiveness evaluation and non-compliance Under the "three pillars" of the Convention, the Contracting Parties commit to: <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. 	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 (see Section 8.2) may arise. 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.
European 2020 Strategy for Growth	Europe 2020 sets out a vision of Europe's social market economy for the 21st century and puts forward three mutually reinforcing priorities: <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. 	In order to reach these priorities, the Commission proposes five quantitative targets to fulfil by 2020: <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. 	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 (see Section 8.2) may arise. 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.
National Level			
Ireland 2040 - Our Plan, the National Planning Framework, and the National Development Plan	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.	National Strategic Outcomes as follows: <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 	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 (see Section 8.2) may arise. 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.
Planning, Land Use and Transport Outlook 2040 [in preparation]	The PLUTO will take account of forecasted future economic and demographic scenarios, affordability considerations and relevant Government policies and will: <ol style="list-style-type: none"> 1. Quantify in broad terms the appropriate scale of financial investment in land transport over the long term; 2. Consider how fiscal, environmental and technological developments might impact on this investment; and, 3. Identify strategic priorities for future investment to ensure land transport infrastructure provision facilitates the objectives of Project Ireland 2040. 	In preparation	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 (see Section 8.2) may arise. 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.
Planning and Development Act 2000 (as amended)	<ul style="list-style-type: none"> • The core principal objectives of this Act are to amend the Planning Acts of 2000 – 2009 with specific regard given to supporting economic renewal and sustainable development. 	<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. 	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 (see Section 8.2) may arise. 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.
European Communities (Environmental Assessment of Certain Plans and Programmes Regulations 2004 (S.I. 435 of 2004), as amended by S.I. 200 of 2011	<ul style="list-style-type: none"> • The purpose of these Regulations is to transpose into Irish law Directive 2001/42/EC of 27 June 2001 (O.J. No. L 197, 21 July 2001) on the assessment of the effects of certain plans and programmes on the environment — commonly known as the Strategic Environmental Assessment (SEA) Directive. 	<ul style="list-style-type: none"> • The Regulations cover plans and programmes in all of the sectors listed in article 3(2) of the Directive except land-use planning. • These Regulations also amend certain provisions of the Planning and Development Act 2000 to provide the statutory basis for the transposition of the Directive in respect of land-use planning. • Transposition in respect of the land-use planning sector is contained in the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 	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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination

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		436 of 2004).	with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011, as amended)	<ul style="list-style-type: none"> 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. 	<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. 	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 (see Section 8.2) may arise. 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.
Waste Management Act 1996, as amended	<ul style="list-style-type: none"> 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. 	<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. 	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 (see Section 8.2) may arise. 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.
European Communities Environmental Objectives (FPM) Regulations 2009 (S.I. 296 of 2009)	<ul style="list-style-type: none"> The purpose of these Regulations is to support the achievement of favourable conservation status for freshwater pearl mussels 	<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. 	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 (see Section 8.2) may arise. 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.
European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. 9 of 2010), as amended (S.I. No. 366 of 2016)	<ul style="list-style-type: none"> 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>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. 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. 	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 (see Section 8.2) may arise. 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.
European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2014 (S.I. No. 31 of 2014)	<ul style="list-style-type: none"> These Regulations, which give effect to Ireland's 3rd Nitrates Action Programme, provide statutory support for good agricultural practice to protect waters against pollution from agricultural sources 	<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. 	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 (see Section 8.2) may arise. 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.
Climate Action and Low Carbon Development Act 2015, as amended	<ul style="list-style-type: none"> 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>When considering a plan or framework, for approval, the Government shall endeavour to achieve the national transition objective within the period to which the objective relates and shall, in endeavouring to achieve that objective, ensure that such objective is achieved by the implementation of measures that are cost effective and shall, for that purpose, have regard to:</p> <ul style="list-style-type: none"> The ultimate objective specified in Article 2 of the United Nations Framework 	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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and

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		<p>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,</p> <ul style="list-style-type: none"> 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>cumulatively contribute towards – in 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 Climate Action Plan 2023	<p>The National 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 Ireland's climate targets and sets indicative ranges of emissions reductions for each sector of the economy. It will be updated periodically 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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
The Sustainable Development Goals National Implementation Plan (2018 – 2020)	<ul style="list-style-type: none"> National Implementation Plan 2018 - 2020 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 Plan provides a 'SDG Matrix' which identifies the responsible Government Departments for each of the 169 targets. It also includes a 'SDG Policy Map' indicating the relevant national policies for each of the targets. 	<p>The Plan identifies four strategic priorities to guide implementation:</p> <ul style="list-style-type: none"> Awareness: raise public awareness of the SDGs; Participation: provide stakeholders opportunities to engage and contribute to follow-up and review processes, and further develop national implementation of the Goals; Support: encourage and support efforts of communities and organisations to contribute towards meeting the SDGs, and foster public participation; and Policy alignment: develop alignment of national policy with the SDGs and identify opportunities for policy coherence. 	<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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Infrastructure and Capital Investment Plan (2016-2021)	<ul style="list-style-type: none"> €27 billion multi-annual Exchequer Capital Investment Plan, which is supported by a programme of capital investment in the wider State sector, and which over the period 2016 to 2021 will help to lay the foundations for continued growth in Ireland. 	<ul style="list-style-type: none"> This Capital Plan reflects the Government's commitment to supporting strong and sustainable economic growth and raising welfare and living standards for all. It includes allocations for new projects across a number of key areas and funding to ensure that the present stock of national infrastructure is refreshed and maintained. 	<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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
European Union (Birds and Natural Habitats) (Sea-Fisheries) Regulations 2013 (S.I. 290 of 2013)	<p>These regulations have been drafted to implement the responsibilities of the Minister for Agriculture Food and the Marine in relation to sea fisheries in Natura 2000 sites, in accordance with the Habitats and Birds Directives as transposed by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011).</p>	<ul style="list-style-type: none"> Regulation 3 provides for the submission of a Fisheries Natura Plan in relation to planned fisheries; Regulation 4 provides for a screening of a Fisheries Natura Plan to determine whether or not an appropriate assessment is required; Regulation 5 provides for an appropriate assessment of a Fisheries Natura Plan and also provides for public and statutory consultation; Regulation 6 provides for the Minister to make a determination to adopt a Fisheries Natura Plan. The Minister may amend, withdraw or revoke a plan; Regulation 7 provides for publication of the adopted Fisheries Natura Plan; Regulation 8 provides for a Risk Assessment of unplanned fisheries and also provides for public and statutory consultation on the assessment; Regulation 9 provides for the issue of a Natura Declaration to prohibit, restrict including restricting by permit, control, etc. of sea fishing activities; Regulation 10 provides for Natura Permits to be issued where required by Natura Declarations; and Regulations 11 to 31 deal with functions of authorised officers and related matters, offences, etc. 	<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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
Ireland's National Renewable Energy Action Plan 2010 (Irish Government submission to the European Commission)	<ul style="list-style-type: none"> The National Renewable Energy Action Plan (NREAP) sets out the Government's strategic approach and concrete measures to deliver on Ireland's 16% target under Directive 2009/28/EC. 	<ul style="list-style-type: none"> The NREAP sets out the Member State's national targets for the share of energy from renewable sources to be consumed in transport, electricity and heating and cooling in 2020, and demonstrates how the Member State will meet its overall national target established under the Directive. 	<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 (see Section 8.2) may arise. 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. –</p>

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Strategy for Renewable Energy (2012-2020)	<ul style="list-style-type: none"> The Government's overarching strategic objective is to make renewable energy an increasingly significant component of Ireland's energy supply by 2020, so that at a minimum it will achieve its legally binding 2020 target in the most cost-efficient manner for consumers. Of critical importance is the role which the renewable energy sector plays in job creation and economic activity as part of the Government's action plan for jobs. 	<p>This document sets out five strategic goals, reflecting the key dimensions of the renewable energy challenge to 2020:</p> <ul style="list-style-type: none"> Increasing on and offshore wind, Building a sustainable bioenergy sector, Fostering R&D in renewables such as wave & tidal, Growing sustainable transport; and Building out robust and efficient networks. 	<p>the achievement of the objectives of the regulatory framework for environmental protection and management.</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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
National Climate Mitigation Plan 2017	<ul style="list-style-type: none"> The Plan represents an initial step to set Ireland on a pathway to achieve the deep decarbonisation required in Ireland by mid-century in line with the Government's policy objectives. 	<p>The National Mitigation Plan focuses on the following issues:</p> <ul style="list-style-type: none"> Climate Action Policy Framework Decarbonising Electricity Generation Decarbonising the Built Environment Decarbonising Transport An Approach to Carbon Neutrality for Agriculture, Forest and Land Use Sectors 	<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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
National Clean Air Strategy [in preparation]	<ul style="list-style-type: none"> The Clean Air Strategy will provide 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. 	<ul style="list-style-type: none"> Having a National Strategy will provide a policy framework by which 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 will consider 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 and this will be a strong theme of the Strategy. 	<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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
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; <i>"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."</i> 	<ul style="list-style-type: none"> 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>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
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 off road 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>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
National Water Resources Plan [in preparation]	<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>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and</p>

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	<ul style="list-style-type: none"> The preparation of the NWRP has been divided into two phases, the combination of which will become the final NWRP. The NWRP Framework Plan (Phase 1) has now been adopted. Phase 2 of the NWRP (four Regional Water Resources Plans), currently in preparation, will address the needs across the 535 individual water supplies and identify the solutions to address these needs. 	<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 Assess the water resources available at a national level including lakes, rivers and groundwater 	<p>cumulatively contribute towards – in 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 Strategic Plan for Aquaculture Development (2014-2020)</p>	<p>Vision: <i>“Aquaculture in RC is economically, socially and ecologically sustainable, with a developed infrastructure, strong human potentials and an organized market. The consumption of aquaculture products is equal or above EU average, while the technological development of the sector is among the best in the EU.”</i></p>	<p>General development and growth objectives of marine and freshwater aquaculture (2014 – 2020):</p> <ul style="list-style-type: none"> Strengthen the social, business and administrative environment for aquaculture development Increase in the total production to 24,050 tonnes while adhering to the principles of economic, social and ecological sustainability Improvement of the perception and increase in the national consumption of National products 	<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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<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>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Sustainable Development: A Strategy for Ireland (1997)</p>	<ul style="list-style-type: none"> The overall aim of this Strategy is to ensure that economy and society in Ireland can develop to their full potential within a well-protected environment, without compromising the quality of that environment, and with responsibility towards present and future generations and the wider international community. 	<ul style="list-style-type: none"> The Strategy addresses all areas of Government policy, and of economic and societal activity, which impact on the environment. It seeks to re-orientate policies as necessary to ensure that the strong growth Ireland enjoys and seeks to maintain will be environmentally sustainable. 	<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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>National Landscape Strategy for Ireland 2015-2025 and National Landscape Character Assessment (pending preparation)</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: <i>“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.”</i> 	<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>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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>National Hazardous Waste Management Plan (EPA) 2014-2020 and new National Hazardous Waste Management Plan 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. Section 26 of the Waste Management Act 1996 as amended, sets out the overarching objectives for the National Hazardous Waste Management Plan. In this context, the following objectives are included as priorities for the revised Plan period:</p> <ul style="list-style-type: none"> To prevent and reduce the generation of hazardous waste by industry and society generally; To maximise the collection of hazardous waste with a view to reducing the environmental and health impacts of any unregulated waste; To strive for increased self-sufficiency in the management of hazardous 	<p>The revised Plan makes 27 recommendations under the following topics:</p> <ul style="list-style-type: none"> Prevention Collection Self-sufficiency Regulation Legacy issues North-south cooperation Guidance and awareness Implementation 	<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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>

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	<p>waste and to minimise hazardous waste export;</p> <ul style="list-style-type: none"> To minimise the environmental, health, social and economic impacts of hazardous waste generation and management. 		
Ministerial Guidelines such as Sustainable Rural Housing Guidelines and Flood Risk Management Guidelines	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> 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. 	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 (see Section 8.2) may arise. 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.
HSE Healthy Ireland Framework for Improved Health and Wellbeing 2013-2025	<ul style="list-style-type: none"> The vision is: <i>“A Healthy Ireland, where everyone can enjoy physical and mental health and wellbeing to their full potential, where wellbeing is valued and supported at every level of society and is everyone’s responsibility.”</i> 	<p>These four goals are interlinked, interdependent and mutually supportive:</p> <ul style="list-style-type: none"> Goal 1: Increase the proportion of people who are healthy at all stages of life Goal 2: Reduce health inequalities Goal 3: Protect the public from threats to health and wellbeing Goal 4: Create an environment where every individual and sector of society can play their part in achieving a healthy Ireland 	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 (see Section 8.2) may arise. 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.
Our Sustainable Future: A framework for Sustainable Development for Ireland 2012	A medium to long term framework for advancing sustainable development and the green economy in Ireland. It identifies spatial planning as a key challenge for sustainable development and sets a series of measures to address these challenges.	<ul style="list-style-type: none"> 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. 	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 (see Section 8.2) may arise. 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.
Smarter Travel – A Sustainable Transport Future – A New Transport Policy for Ireland 2009 – 2020 (2009)	<ul style="list-style-type: none"> Outlines a policy for how a sustainable travel and transport system can be achieved. Sets out five key goals: <ul style="list-style-type: none"> To reduce overall travel demand. To maximise the efficiency of the transport network. To reduce reliance on fossil fuels. To reduce transport emissions. To improve accessibility to transport. 	<ul style="list-style-type: none"> Others lower level aims include: <ul style="list-style-type: none"> reduce distance travelled by private car and encourage smarter travel, including focusing population growth in areas of employment and to encourage people to live in close proximity to places of employment ensuring that alternatives to the car are more widely available, mainly through a radically improved public transport service and through investment in cycling and walking improving the fuel efficiency of motorised transport through improved fleet structure, energy efficient driving and alternative technologies strengthening institutional arrangements to deliver the targets 	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 (see Section 8.2) may arise. 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.
Investing in our Future: A Strategic Framework for Investment in Land Transport (SFILT) – Department of Transport, Tourism and Sport	<ul style="list-style-type: none"> SFILT sets out a set of priorities to guide the allocation of the State’s investment to best develop and manage Ireland’s land transport network over the coming decades. 	<p>The three priorities stated in SFILT are:</p> <ul style="list-style-type: none"> Priority 1: Achieve steady state maintenance (meaning that the maintenance and renewal of the existing transport system is at a sufficient level to maintain the system in an adequate condition); Priority 2: Address urban congestion; and Priority 3: Maximise the value of the road network. <p>In delivering on the steady state maintenance objective set out in SFILT, the Plan includes for:</p> <ul style="list-style-type: none"> Planned replacement programme for the bus fleet operated under Public Service Obligation (“PSO”) contracts; Tram refurbishment and asset renewal in the case of light rail; and To the extent within the Authority’ remit, support for the operation of the existing rail network within the GDA. 	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 (see Section 8.2) may arise. 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.
Delivering a Sustainable Energy Future for Ireland – The Energy Policy Framework 2007 – 2020 (2007)	<ul style="list-style-type: none"> White paper setting out a framework for delivering a sustainable energy future in Ireland. Outlines strategic Goals for: <ul style="list-style-type: none"> Security of Supply Sustainability of Energy Competitiveness of Energy Supply 	<p>The underpinning Strategic Goals are:</p> <ul style="list-style-type: none"> Ensuring that electricity supply consistently meets demand Ensuring the physical security and reliability of gas supplies to Ireland Enhancing the diversity of fuels used for power generation Delivering electricity and gas to homes and businesses over efficient, reliable and secure networks 	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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and

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		<ul style="list-style-type: none"> • Creating a stable attractive environment for hydrocarbon exploration and production • Being prepared for energy supply disruptions 	cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Adaptation Framework (NAF) 2018 and associated regional, local and sectoral adaptation plans	<ul style="list-style-type: none"> • 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 	<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 	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 (see Section 8.2) may arise. 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.
National Renewable Energy Action Plan (2010)	<ul style="list-style-type: none"> • Sets out the Member State's national targets for the share of energy from renewable sources to be consumed in transport, electricity and heating and cooling in 2020, and demonstrates how the Member State will meet its overall national target established under the Directive. 	Including Ireland's 16% target of gross final consumption to come from renewables by 2020.	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 (see Section 8.2) may arise. 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.
National Energy Efficiency Action Plan for Ireland (2009 – 2020)	<ul style="list-style-type: none"> • This is the second National Energy Efficiency Action Plan for Ireland. 	<ul style="list-style-type: none"> • The Plan reviews the original 90 actions outlined in the first Plan and updates/renews/removes them as appropriate. 	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 (see Section 8.2) may arise. 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.
Wildlife Act of 1976 Wildlife (Amendment) Act, 2000	<ul style="list-style-type: none"> • The act provides protection and conservation of wild flora and fauna. 	<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 	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 (see Section 8.2) may arise. 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.
Actions for Biodiversity (2017-2021) Ireland's National Biodiversity Plan	<ul style="list-style-type: none"> • 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 ecosystem 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. 	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 (see Section 8.2) may arise. 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.
National Broadband Plan (2012)	<ul style="list-style-type: none"> • 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. 	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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and

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		<ul style="list-style-type: none"> A series of specific complementary measures to promote implementation of Government policy in this area. 	cumulatively contribute towards – in 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 (Water Policy) Regulations of 2003 (SI 722 of 2003)</p> <p>European Communities (Water Policy) Regulations of 2003 (SI 350 of 2014)</p> <p>European Communities Environmental Objectives (Surface waters) Regulations of 2009 (SI 272 of 2009)</p>	<ul style="list-style-type: none"> Transpose the Water Framework Directive into legislation. Outlines the general duty of public authorities in relation to water. Identifies the competent authorities in charge of water policy (amended to Irish Water in 2013) and gives EPA and the CER the authority to regulate and supervise their actions. 	<ul style="list-style-type: none"> Implements River basin districts and characterisation of RBDs and River Basin Management Plans. Requires the public to be informed and consulted on the Plan and for progress reports to be published on RBDs. Implements a Register of protected areas, Classification systems and Monitoring programmes for water bodies. Allows the competent authority to recover the cost of damage/destruction of status of water body. Outlines environmental objectives and programme of measures and environmental quality standards for priority substances. Outlines criteria for assessment of groundwater. Outlines environmental objectives to be achieved for surface water bodies. Outlines surface water quality standards. Establishes threshold values for the classification and protection of surface waters against pollution and deterioration in quality. 	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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<p>European Communities Environmental Objectives (Groundwater) Regulations of 2010 (SI 9 of 2010)</p>	<ul style="list-style-type: none"> Transpose the requirements of the Groundwater Directive 2006/118/EC into Irish Legislation. 	<ul style="list-style-type: none"> Outlines environmental objectives to be achieved for groundwater bodies of groundwater against pollution and deterioration in quality. Sets groundwater quality standards. Outlines threshold values for the classification and protection of groundwater. 	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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<p>Water Pollution Acts 1977 to 1990</p>	<ul style="list-style-type: none"> The Water Pollution Acts allow Local Authorities the authority regulate and supervise actions relating to water in their division. 	<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. 	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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<p>Water Services Act 2007</p> <p>Water Services (Amendment) Act 2012</p> <p>Water Services Act (No. 2) 2013</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 waste water supply. Irish Water was given the responsibility of the provision of water and waste water 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 in the gateways and hubs listed in the National Spatial Strategy, and in other locations where services need to be enhanced. 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 waste water treatment, for compliance with the requirements of the EU Urban Waste water Treatment Directive. 	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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<p>Irish Water's Water Services Strategic Plan 2015 and associated Proposed Capital Investment Plan (2014-2016)</p>	<ul style="list-style-type: none"> This Water Services Strategic Plan sets out strategic objectives for the delivery of water services over the next 25 years up to 2040. It details current and future challenges which affect the provision of water services and identifies the priorities to be tackled in the short and medium term. 	<p>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 Waste water. Protect and Enhance the Environment. Support Social and Economic Growth. Invest in the Future. 	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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<p>Agri-Food Strategy 2030</p>	<p>This 10-year Strategy sets out four high-level "Missions" to be achieved in</p>	<p>Each of the Missions has a set of Goals which are underpinned by a series of Actions.</p>	Where new land use developments or activities occur

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Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
	order to develop such a system in Ireland: 1. A Climate Smart, Environmentally Sustainable Agri-Food Sector 2. Viable and Resilient Primary Producers with Enhanced Wellbeing 3. Food that is Safe, Nutritious and Appealing, Trusted and Valued at Home and Abroad 4. An Innovative, Competitive and Resilient Sector, driven by Technology and Talent		as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. 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.
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	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 (see Section 8.2) may arise. 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.
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. 	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 (see Section 8.2) may arise. 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.
National Rural Development Programme	<ul style="list-style-type: none"> The National Rural Development Programme, prepared by the Department of Agriculture, Fisheries and Food, sets out a national programme based on the EU framework for rural development and prioritises improving the competitiveness of agriculture, improving the environment and improving the quality of life in rural areas 	At a more detailed level, the programme also: <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 	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 (see Section 8.2) may arise. 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.
National Forestry Programme (2014-2020)	Represents Ireland's proposals for 100% State aid funding for a new Forestry Programme for the period 2014 – 2020.	Measures include the following: <ul style="list-style-type: none"> Afforestation and Creation of Woodland NeighbourWood Scheme Forest Roads Reconstitution Scheme Woodland Improvement Scheme Native Woodland Conservation Scheme Knowledge Transfer and Information Actions Producer Groups Innovative Forest Technology Forest Genetic Reproductive Material Forest Management Plans 	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 (see Section 8.2) may arise. 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.
River Basin Management Plan for Ireland 2022-2027 3rd Cycle [in preparation]	This draft River Basin Management Plan sets out the measures that are necessary to protect and restore water quality in Ireland. The overall aim of the plan is to ensure that our natural waters are sustainably managed and that freshwater resources are protected so as to maintain and improve Ireland's water environment.	The River Basin Management Plan sets out the measures necessary to protect and improve the quality of Ireland's waters. These plans are prepared in 6-year cycles, during which a programme of measures must be implemented so as to achieve water quality objectives. Good water quality contributes to protecting human health by improving the quality of drinking water sources and bathing waters.	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 (see Section 8.2) may arise. 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.
National Peatlands Strategy (2015-	This Strategy aims to provide a long-term framework within which all of the	Objectives of the Strategy:	Where new land use developments or activities occur

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2025)	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.	<ul style="list-style-type: none"> To give direction to Ireland's approach to peatland management. To apply to all peatlands, including peat soils. To ensure that the relevant State authorities and state-owned companies that influence such decisions contribute to meeting cross-cutting objectives and obligations in their policies and actions. To ensure that Ireland's peatlands are sustainably managed so that their benefits can be enjoyed responsibly. To inform appropriate regulatory systems to facilitate good decision making in support of responsible use. To inform the provision of appropriate incentives, financial supports and disincentives where required. 	as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. 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.
Flood Risk Management Plans arising from National Catchment Flood Risk Assessment and Management Programme	<ul style="list-style-type: none"> The national Catchment Flood Risk Assessment and Management (CFRAM) programme commenced in Ireland in 2011 and is being overseen by the Office of Public Works. The CFRAM Programme is intended to deliver on core components of the National Flood Policy, adopted in 2004, and on the requirements of the EU Floods Directive. 	CFRAM Studies have been undertaken for all River Basin Districts. The studies are focusing on areas known to have experienced flooding in the past and areas that may be subject to flooding in the future either due to development pressures or climate change. Flood Risk and Hazard mapping, including Flood Extent Mapping, was finalised in 2017. The final outputs from the studies are the CFRAM Plans, finalised in 2018. The Plans define the current and future flood risk in the River Basin Districts and set out how this risk can be managed.	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 (see Section 8.2) may arise. 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.
Draft National Bioenergy Plan 2014 - 2020	The Draft Bioenergy Plan sets out a vision as follows: <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. 	Three high level goals, of equal importance, based on the concept of sustainable development are identified: <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. To ensure that bioenergy developments do not adversely impact the environment and its living and non-living resources. 	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. 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.
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 2009/28/EC: 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.	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 (see Section 8.2) may arise. 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.
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 	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 (see Section 8.2) may arise. 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.
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. The creation of 23,000 additional jobs all along the supply chain from producer level to high-end value-added product development. 	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 (see Section 8.2) may arise. 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.
National Cycle Network Scoping Study	<ul style="list-style-type: none"> Outlines objectives and actions aimed at developing a strong cycle 	<ul style="list-style-type: none"> Sets a target where 10% of all journeys will be made by bike by 2020 	Where new land use developments or activities occur

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2010	<ul style="list-style-type: none"> network in Ireland Sets out 19 specific objectives, and details the 109 actions, aimed at ensuring that a cycling culture is developed 	<ul style="list-style-type: none"> Proposes the planning, infrastructure, communication, education and stakeholder participations measures required to implement the initiative 	as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects (see Section 8.2) may arise. 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.
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>	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 (see Section 8.2) may arise. 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.
Tourism Action Plan 2019-2021	The Tourism Action Plan 2019-2021 sets out actions that the Tourism Leadership Group has identified as priorities to be progressed until 2021 in order to maintain sustainable growth in overseas tourism revenue and employment. Each action involves specific tourism stakeholders, both in the public and private sectors, all of whom we expect to proactively work towards the completion of actions within the specified timeframe.	<p>The Plan contains 27 actions focusing on the following areas:</p> <ul style="list-style-type: none"> Policy Context Marketing Ireland as a Visitor Destination Enhancing the Visitor Experience Research in the Irish Tourism Sector Supporting Local Communities in Tourism Wider Government Policy International Context Co-ordination Structures 	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 (see Section 8.2) may arise. 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.
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 (see Section 8.2) may arise. 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.
Draft Renewable Electricity Policy and Development Framework (DCCAE)	Goal: To optimise the opportunities in Ireland for renewable electricity generation 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 2009/28/EC: On the promotion of the use of energy from renewable resources.	<p>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.</p> <p>Methodology: Development of the Policy and Development Framework is to be informed by the carrying out of an SEA, including widespread consultation with stakeholders and public, and with AA under the Habitats Directive.</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 (see Section 8.2) may arise. 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.
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.	<p>Targets for alternative fuel infrastructure include the following:</p> <ul style="list-style-type: none"> AFV forecasts Electricity targets Natural gas (CNG, LNG) targets Hydrogen targets Biofuels targets LPG targets <p>Synthetic and paraffinic fuels targets</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 (see Section 8.2) may arise. 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.

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All Ireland Pollinator Plan 2021-2025	The All-Ireland Pollinator Plan is an island-wide attempt to reverse declines in pollinating insects to ensure the sustainability of our food, avoid additional economic impacts on agriculture, and protect the health of the environment. The main objectives include: <ul style="list-style-type: none"> • Making farmland, public land and private land in Ireland pollinator friendly; • Raising awareness of pollinators and how to protect them; • Managed pollinators – supporting beekeepers and growers; • Expanding our knowledge of pollinators and pollination service; and • Collecting evidence to track change and measure success. 	This voluntary Plan identified 81 actions, shared out between over 100 governmental and non-governmental organisations. A large focus of the Plan is to identify actions to improve the quality and amount of flower-rich habitat. Actions range from creating pollinator highways along our transport routes, to supporting pollinators on farmland, in gardens, businesses, and on public land.	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 (see Section 8.2) may arise. 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.
Guidelines on Sustainable Residential Development in Urban Areas (DEHLG 2009)	The aim of these guidelines is to set out the key planning principles which should be reflected in development plans and local area plans, and which should guide the preparation and assessment of planning applications for residential development in urban areas.	The objective is to produce high quality sustainable developments: <ul style="list-style-type: none"> • quality homes and neighbourhoods, • places where people actually want to live, to work and to raise families, and • places that work for our children and for our children's children. 	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 (see Section 8.2) may arise. 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.
Town Centre First	The Town Centre First policy aims to create town centres that function as viable, vibrant and attractive locations for people to live, work and visit, while also functioning as the service, social, cultural and recreational hub for the local community.	The policy sets out a framework to facilitate and resource each town to chart their own future through a tailored plan, developed by a collaborative Town Team, and supported by their Local Authority.	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 (see Section 8.2) may arise. 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.
Regional/ County/Local Level			
Southern Regional Economic and Spatial Strategy 2019-2031	The Regional Spatial and Economic Strategy provides a long-term strategic planning and economic framework for the Southern Region in order to support the implementation of the National Planning Framework.	The Southern Regional Economic and Spatial Strategy includes provisions for its 10 constituent local authorities: Carlow County Council; Tipperary County Council; Waterford City & County Council; Wexford County Council; Kilkenny County Council; Cork City Council; Cork County Council; Kerry County Council; Clare County Council; and Limerick City and County Council.	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 (see Section 8.2) may arise. 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.
Eastern and Midland Regional Economic and Spatial Strategy 2019-2031	The Regional Spatial and Economic Strategy provides a long-term strategic planning and economic framework for the Eastern and Midland Region in order to support the implementation of the National Planning Framework.	The Eastern and Midland Regional Economic and Spatial Strategy includes provisions for its 11 constituent local authorities: Dublin City Council; Dún Laoghaire County Council; South Dublin County Council; Longford County Council; Louth County Council; Wicklow City Council; Offaly County Council; Laois County Council; Meath County Council; Fingal County Council; and Westmeath County Council.	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 (see Section 8.2) may arise. 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.
Integrated Implementation Plan 2019-2024	The Transport Strategy for the Greater Dublin Area 2016-2035, which established an overall framework for transport investment over the next two decades and was subject to full SEA and Stage 2 AA, is a key policy shaping the six-year Integrated Infrastructure Plan. The priorities in the Integrated Infrastructure Plan align with the objectives and priorities set out in the Transport Strategy, focused on improving public and sustainable transport.	The Implementation Plan identifies investment proposals for a number of areas including: <ul style="list-style-type: none"> • Bus; • Light Rail; • Heavy Rai; • Integration Measures and Sustainable Transport Investment; • Integrated Service Plan; and • Integration and Accessibility. 	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 (see Section 8.2) may arise. 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.

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NPWS Conservation Plans and/or Conservation Objectives for SACs and SPAs	Management planning for nature conservation sites has a number of aims. These include: <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. 	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 (see Section 8.2) may arise. 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.
Groundwater Protection Schemes	A Groundwater Protection Scheme provides guidelines for the planning and licensing authorities in carrying out their functions, and a framework to assist in decision-making on the location, nature and control of developments and activities in order to protect groundwater.	A Groundwater Protection Scheme aims to maintain the quantity and quality of groundwater, and in some cases improve it, by applying a risk assessment-based approach to groundwater protection and sustainable development.	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 (see Section 8.2) may arise. 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.
Local Economic and Community Plans (LECPs), including the Carlow LECP [in preparation]; and the Laois LECP [in preparation]	The overarching vision for each LECP is: "to promote the well-being and quality of life of citizens and communities"	The purpose of the LECP, as provided for in the Local Government Reform Act 2014, is to set out, for a six-year period, the objectives and actions needed to promote and support the economic development and the local and community development of the relevant local authority area, both by itself directly and in partnership with other economic and community development stakeholders.	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 (see Section 8.2) may arise. 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.
Carlow County Development Plan 2022-2028 and Laois County Development Plan 2021-2027 and other Land Use Plans in force within Carlow and Laois and in other adjoining planning authorities. This includes Development Plans, Local Area Plans and Planning Schemes.	<ul style="list-style-type: none"> Outline planning objectives for land use development. Strategic framework for planning and sustainable development including those set out in National Planning Framework and Regional Economic and Spatial Strategies. Set out the policies and proposals to guide development in the specific Local Authority area. 	<ul style="list-style-type: none"> Identify future infrastructure, development and zoning required. Protect and enhances amenities and environment. Guide planning authority in assessing proposals. Aim to guide development in the area and the amount of nature of the planned development. Aim to promote sustainable development. Provide for economic development and protect natural environmental, heritage. 	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 (see Section 8.2) may arise. 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.
Draft Carlow Biodiversity Action Plan 2023-2028	Aims to protect, conserve, enhance and restore heritage, biodiversity and ecosystem services across all spectrums.	Plan's objectives include: <ul style="list-style-type: none"> gathering information on the biodiversity resource managing the resource education and awareness cooperation to achieve objectives 	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 (see Section 8.2) may arise. 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.
Laois Heritage and Biodiversity Strategy 2021 - 2026	Aims to protect, conserve, enhance and restore heritage, biodiversity and ecosystem services across all spectrums.	The aims of the Laois Heritage and Biodiversity Strategy 2021-2026 are to: <ol style="list-style-type: none"> Conserve and enhance the heritage and biodiversity of Laois; Commemorate the people and events of historical significance for Laois; Integrate our work across built, natural and cultural heritage, where possible; and Celebrate and promote the heritage and biodiversity of Laois. 	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 (see Section 8.2) may arise. 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.

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Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
County Carlow and County Laois Character Assessment and Landscape Character Assessments in adjoining local authorities	Characterises the geographical dimension of the landscape.	Identifies the quality, value, sensitivity and capacity of the landscape area. Guides strategies and guidelines for the future development of the landscape.	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 (see Section 8.2) may arise. 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.
Carlow County Council's Noise Action Plan 2018-2023 Laois County Council's Noise Action Plan 2019-2022	Noise Action Plans are prepared in accordance with the requirements of the Environmental Noise Regulations 2006, Statutory Instrument 140 of 2006. These Regulations give effect to the EU Directive 2002/49/EC relating to the assessment and management of environmental noise. This Directive sets out a process for managing environmental noise in a consistent manner across the EU and the Noise Regulations set out the approach to meeting the requirements of the Directive in Ireland.	The main purpose of Noise Action Plans is to: Inform and consult the public about noise exposure, its effects and the measures which may be considered to address noise problems Address strategic noise issues by requiring competent authorities to draw up action plans to manage noise issues and their effects Reduce noise, where possible, and maintain the environmental acoustic quality where it is good	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 (see Section 8.2) may arise. 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.
Carlow County Council's Climate Adaption Strategy 2019-2024 Laois County Council's Climate Adaption Strategy 2019-2024	The Carlow County Council Climate Change Adaptation Strategy 2019-2024 and Laois County Council Climate Change Adaptation Strategy 2019-2024 feature a range of actions across sectors including: agriculture, forestry, biodiversity, built and archaeological heritage, transport infrastructure, electricity and gas networks, communication networks, flood risk management, water quality, water services infrastructure and health.	The Strategies seek to: <ul style="list-style-type: none"> • Ensure a proper comprehension of the key risks and vulnerabilities of climate change; • Bring forward the implementation of climate resilient actions in a planned and proactive manner; and • Ensure that climate adaptation considerations are mainstreamed into all plans and policies and integrated into all operations and functions of Carlow and Laois County Councils. 	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 (see Section 8.2) may arise. 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.
Carlow County Council's Draft Climate Action Plan Laois County Council's Draft Climate Action Plan	Under the National Climate Action Plan 2023, Carlow and Laois County Councils are required to prepare a locally specific climate action plan for their administrative areas. Once adopted, these plans will be valid for five years, and is subject to update at least every five years. Carlow and Laois County Councils' Climate Action Plans are being prepared and are required to be adopted before 24th February 2024. These plans will contribute towards addressing the mitigation of greenhouse gas emissions, climate change adaptation, and strengthening the alignment between national climate policy and the delivery of local climate action.	Through the development and implementation of specific, action-focused, time-bound and measurable actions, local authority climate action plans will: <ul style="list-style-type: none"> • 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. • 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. • 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. 	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 Strategy needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Draft Carlow County Council Renewable Energy Strategy	The Strategy sets out the framework for the delivery of sustainable and renewable energies throughout the County.	The LARES outlines the potential for a range of renewable energy resources and developments and acknowledges the significant contribution that they can make to the county in terms of energy security, reduced reliance on traditional fossil fuels, enabling future energy exports, meeting assigned national targets and the transition to a low carbon economy	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 (see Section 8.2) may arise. 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.
County Carlow Tourism Strategy and Action Plan 2020-2025	Key strategic principles for tourism development identified, include: <ul style="list-style-type: none"> • The natural and built heritage of the County as a primary tourism asset. • The requirement to align with Ireland's Ancient East. • The long-standing need to develop a flagship attraction for the County. • The opportunity for experience and product development. • The imbalance in the County arising from location of tourism product in the north of the county and areas of attractive scenery which are generally located toward the South of the County. 	County Carlow Tourism Strategy and Action Plan was commissioned by Carlow Tourism, and has been prepared in the context of Ireland's Ancient East. The purpose of the strategy is to: <ul style="list-style-type: none"> • improve the profile of Carlow as a holiday destination; • maximise the economic outputs for tourism; • grow tourism related employment; and improve the product offering and visitor experience. 	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 (see Section 8.2) may arise. 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.

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A Strategic Plan for Tourism in Laois 2018-2023	The Strategy sets out a collaborative approach to tourism that enables Laois to harness the potential of its built and natural heritage to become an all year-round tourism destination	The Vision will be achieved through the fulfilment of the following key objectives: <ul style="list-style-type: none"> · Attract visitors into the heart of Ireland's story through quality authentic Irish heritage and outdoor activity experiences. · Grow tourism visitor numbers and value of tourism through the enhancement of the Laois tourism product and service base supported by the structures that contribute to the strategic development of the tourism sector across the county · Tourism leadership and partnership increased visitor numbers increase tourism spend increased tourism employment. 	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 (see Section 8.2) may arise. 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.
Project Carlow 2040: A Vision for Regeneration	The Project Carlow 2040 Regeneration Strategy sets the long-term strategy and approach to the spatial pattern of development in Carlow Town over the next 20 years. As a long term plan it informs and will drive the economic, social and physical development of Carlow Town as an investment location and place to live, setting the direction for the development of strategic sites.	The long-term vision of this Regeneration Strategy is to transform Carlow Town into a regional powerhouse of sustainable economic growth that will offer business opportunities and a better quality of life for all.	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 (see Section 8.2) may arise. 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.
County Laois Draft Retail Strategy 2021-2027 County Carlow Draft Retail Strategy 2022-2028	The key objectives of this retail strategy are as follows: <ul style="list-style-type: none"> • Define the retail hierarchy in the County and related retail core boundaries; • Undertake a health check appraisal of the key retail centres in Laois, to ascertain the need for interventions in these areas; • Identify the broad requirement for additional retail floorspace development in the County over the plan period, to support the established settlement hierarchy, and; Provide guidance on policy recommendations and criteria for the future assessment of retail development proposals over the Development Plan Period 2021-2027.	The overriding aim of the strategy is to create the appropriate conditions necessary to foster a healthy and vibrant retail environment in County Laois over the Development Plan period of 2021-2027. It does so through retail policy recommendations which are framed in the context of national and regional plans, strategies and guidelines. The strategy provides important information on the quantum, scale and types of retail development required over the period to 2027, with further outlook to 2031.	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 (see Section 8.2) may arise. 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.
County Laois Storm Water Management Policy	This document sets out a countywide policy for storm water management relating to planning applications for single domestic properties, residential developments and commercial and industrial developments in both rural and urban environments.	This policy sets out the minimum requirements and practices to achieve an acceptable design of storm water management systems for developments to be taken in charge by Laois County Council.	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 (see Section 8.2) may arise. 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.
Carlow County Council Draft Litter Management Plan 2021-2023 Laois County Council Litter Management Plan 2022-2024	The objectives of this Plan are to improve, protect, enhance and promote the natural and built environment in the interests of present and future generations.	The objectives of the Litter Plan 2022 – 2024 are: <ol style="list-style-type: none"> 1. Promotion of Education and Awareness Campaigns 2. Litter Prevention & Enforcement 3. Partnership with Communities and Business 4. Provision of Waste Facilities 5. Management of Litter 	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 (see Section 8.2) may arise. 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.
Carlow Town Biodiversity Strategy and Action Plan 2021-2025	The new Carlow Town Biodiversity Strategy & Action Plan provides a strategic plan and specific actions for protecting and enhancing biodiversity in Carlow Town, including tackling invasive non-native species and protecting ecosystem services.	With this new strategy, Carlow are striving to ensure that biodiversity and the various and multiple eco-systems in Carlow Town are identified, preserved and improved for the benefit of future generations.	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 (see Section 8.2) may arise. 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.

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<p>Southern Regional Waste Management Plan 2015-2021</p> <p>Eastern and Midlands Regional Waste Management Plan 2015-2021</p>	<p>These plans give effect to national and EU waste policy, and address waste prevention and management (including generation, collection and treatment) over the period 2015-2021.</p>	<p>To manage wastes in a safe and compliant manner, a clear strategy, policies and actions are required.</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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Fáilte Ireland Tourism plans, strategies, including those relating to 'Ireland's Ancient East' Regional Tourism Development Strategy and Destination Experience Development Plans</p>	<p>Fáilte Ireland's work includes preparing various plans and strategies for Ireland's Ancient East and other brands and initiatives. These plans are subject to their own environmental assessment processes and any project arising is required to be consistent with and conform with the provisions of all adopted/approved Statutory Policies, Strategies, Plans and Programmes, including provisions for the protection and management of the environment.</p>	<p>Some of Fáilte Ireland's plans and strategies include various projects relating to land use and infrastructural development, including those relating to development of land or on land and the carrying out of land use activities. Many of these projects exist already while some are not currently in existence.</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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p>Various existing, planned and emerging projects provided for by the above plans and programmes</p>	<p>These projects have been provided for by higher-level plans and programmes.</p>	<p>These projects will contribute towards the development of the area to which the Plan relates and/or wider area and will contribute towards environmental protection and management.</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 (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>