#### **SEA ENVIRONMENTAL REPORT**

#### FOR THE

# LAOIS COUNTY DEVELOPMENT PLAN 2021-2027

#### for: Laois County Council

Áras an Chontae

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#### List of Abbreviations

**AA** Appropriate Assessment

ACA Architectural Conservation Area

**CAFE** Cleaner Air for Europe

CORINE Catchment Flood Risk Assessment and Management Co-ORdinated Information on the Environment

**CSO** Central Statistics Office

**DAFM** Department of Agriculture, Food and Marine

**DCCAE** 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

EPA Environmental Impact Assessment
EPA Environmental Protection Agency
EQS Environmental Quality Standard

**EU** European Union

**FPO** Flora Protection Order

**GSI** Geological Survey of Ireland

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

**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

TPOs Tree Preservation Orders

**UNESCO** United Nations Educational, Scientific and Cultural Organisation

WHO World Health Organisation
WFD Water Framework Directive

#### **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 of the plants found in a given area.

Fauna is all of 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 27<sup>th</sup> 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 were 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 Laois County Development Plan 2021-2027. It has been undertaken by CAAS Ltd. on behalf of Laois County Council. 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 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 European SEA Directive<sup>1</sup>, 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.

#### 1.2 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, an earlier version of which accompanied the Draft Plan on public display and has been updated following consultation, and identifies how environmental considerations were integrated into the Plan and how alternatives for the Plan were considered.

The planning authority has taken into account the findings of this report and other related SEA output during the Plan preparation process.

Following adoption of the Plan, an SEA Statement is prepared that summarises, 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 County.

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

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.

An overlay of environmental sensitivities in County Laois are shown on Figure 1.1. Further detail on the weighting applied to different sensitivities is provided under Section 4.14.

The overlay mapping shows that environmental sensitivities are not evenly distributed throughout the County. Most of the County is

(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).

<sup>&</sup>lt;sup>1</sup> Directive 2001/42/EC of the European Parliament and of the Council of Ministers, of 27<sup>th</sup> 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

identified as having low to moderate levels of sensitivity.

The most sensitive areas in the County include:

- Those areas in the north east of the County, concentrated around the Slieve Bloom Mountain Area Landscape Character Area. This is due to a variety of overlapping and related factors including soil type (peat), landscape value and ecological designations.
- Those areas along the banks of the County's various rivers - including the Rivers Nore and Barrow - due to water status, ecological, flood and visual sensitivities.
- Those areas in the south of the County within catchments designated for freshwater pearl mussel and within Hills and Uplands Landscape Character Area.

The Plan directs incompatible development away from the most sensitive areas in the County and focuses on directing: compact, sustainable development within and adjacent to the existing envelopes of the County's towns and villages; and sustainable development elsewhere, including in rural areas. Development of these generally more robust, well-serviced and well-connected areas of the County will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation.

Compact development can be accompanied by placemaking initiatives to enable the County's towns and villages to become more desirable places to live – so that they maintain and improve services to existing and future communities.

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

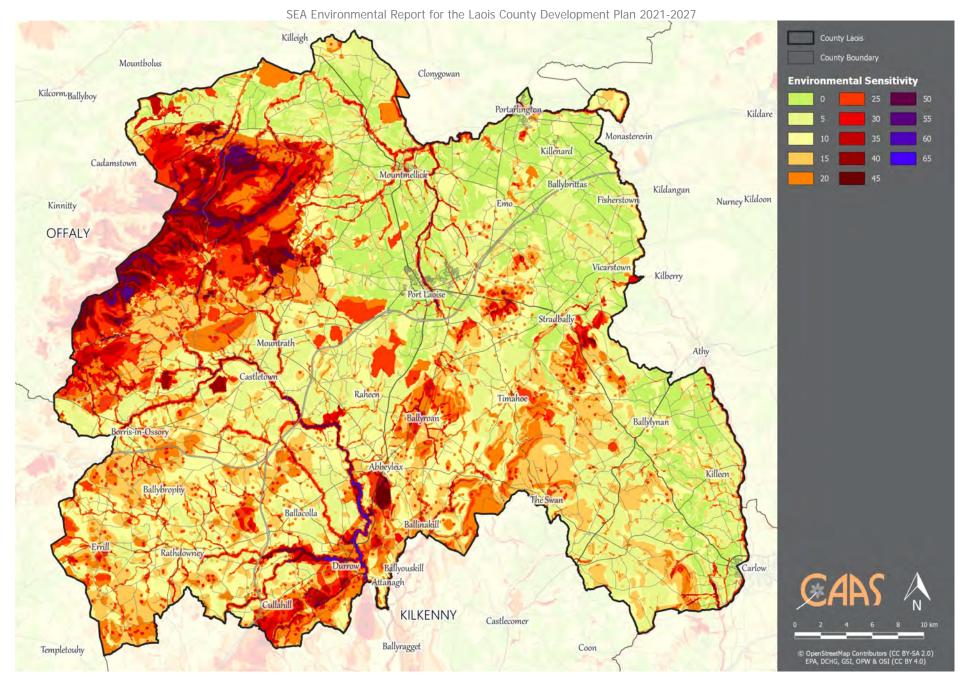


Figure 1.1 Overlay of Environmental Sensitivities in County Laois

#### Section 2 The Plan

#### 2.1 Introduction

The Laois County Development Plan is a land use plan and overall strategy for the proper planning and sustainable development of the functional area of County Laois over the six-year period 2021-2027. Not later than four years after the adoption of the Plan, the Council is required to review it and commence the preparation of a new Plan.

It is a policy objective of the Council to prepare Local Area Plans (LAPs) for Portlaoise, Mountmellick, Portarlington and Carlow/Graiguecullen.

#### 2.2 Content of the Plan

The Plan consists of a written document with supporting appendices and maps, as set out in the table of contents. There are three Volumes, accompanied by Appendices, contained in the Plan:

- Volume 1: The Written Statement which comprises of 14 Chapters, providing policy objectives for each Chapter as follows:
  - 1. Introduction
  - 2. Core and Settlement Strategy
  - 3. Climate Action and Energy
  - 4. Housing Strategy
  - 5. Quality of Life and Sustainable Communities
  - 6. Economic Development
  - 7. Retail and Town/Village Centre Management
  - 8. Tourism
  - 9. Rural Laois
  - 10. Infrastructure
  - 11. Biodiversity and Natural Heritage
  - 12. Built and Cultural Heritage
  - General Location and Pattern of Development
  - 14. Implementation of Monitoring
- Volume 2: Written Statements and maps for the settlements within the County.
- Volume 3: This SEA Environmental Report, the AA Natura Impact Report and the SFRA Report.

# 2.3 Plan Vision and Objectives

The Vision of the Plan is:

"To improve the quality of life for all citizens in County Laois by creating sustainable communities and an environment that supports a vibrant, growing and well connected economy, making it a County where people want to live, work, visit and do business, without compromising the environmental integrity of the county."

In order to achieve this Vision, the County Development Plan has the following Objectives:

- To provide a framework for the future sustainable development of the county, defining acceptable forms of development and where they should be directed:
- To support and facilitate and promote a transition to a low carbon society;
- To provide a detailed basis for the promotion and management of development;
- To implement National and Regional development policy provisions at a county level;
- To promote and assist Laois's economic development opportunity and encourage increased resilience in the County's enterprise.
- Support and respect the rights of the citizens of County Laois with respect to public participation in the planning process in accordance with EU and National legislation.

#### 2.4 Strategic Aims

The Strategic Aims for the Plan set out by Laois County Council are as follows:

- To guide the future development of Laois in line with national and regional objectives set out in the NPF and RSES and other national guidelines and policies;
- II. To promote and facilitate the development of the County in accordance with the provisions of the Core Strategy, including directing development in line with the settlement hierarchy and promoting development at an appropriate scale that is reflective of the terms of the Core Strategy Table and zoning maps.
- III. To apply the Settlement Hierarchy to determine the scale, rate and location of proposed developments and apply appropriate development management measures to ensure compliance with the Settlement Hierarchy including the population targets for the County.
- IV. To promote the delivery of at least 30% of all new homes that are targeted in settlements within their existing built-up footprints;

- V. To ensure that development is promoted, supported or facilitated through the Laois County Development Plan that provides for climate action including the increased risk of flooding and the promotion of sustainable transport options and renewable energy where possible in order to achieve a successful transition to a low carbon economy;
- VI. To support the achievement of more selfsustaining towns and villages through residential and employment opportunities together with supporting social and community facilities
- VII. To monitor and maintain a record of residential development permitted in settlements designated under the Settlement Hierarchy in order to ensure compliance with the population allocations defined by the Core Strategy and to adjust the approach to permitting development proposals in instances where Core Strategy objectives are not being met.
- VIII. To support the development of the tourism sector as an economic driver for the County, identify and develop key destinations, visitor attractions and activities for the prioritisation of investment and to encourage the increase of tourism product development.

# 2.5 Strategic work undertaken by the Council to ensure contribution towards environmental protection and sustainable development

Far in advance of both the submission of the pre-Draft Plan to the Elected Members for approval and the placing of the Draft Plan on public display, Laois County Council undertook various works in order to inform the preparation of the Plan.

The findings of this strategic work have been integrated into the Plan and will contribute towards both environmental protection and management and sustainable development within the County.

Strategic work undertaken by the Council includes background work in relation to Plan Strategies and other provisions for a variety of sectors, including:

<sup>2</sup> 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.

- Strategic Environmental Assessment (SEA);
- Appropriate Assessment (AA);
- Strategic Flood Risk Assessment (SFRA);
- Core Strategy;
- Economic Strategy;
- Settlement Strategy;
- Housing Strategy;
- Rural Housing Design Guidelines;
- Retail Strategy;
- Landscape Character Assessment;
- Climate Action and Sustainable mobility provisions;
- Infrastructure including Green Infrastructure provisions; and
- Record of Protected Structures and Architectural Conservation Areas.

The undertaking of this SEA process and the associated AA and SFRA processes contributed towards the integration of environmental considerations into individual Plan provisions as detailed in Section 9 of this report.

# 2.6 Relationship with other relevant Plans and Programmes

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

The Plan sits within a hierarchy of statutory documents setting out public policy for, among other things, land use planning, infrastructure, development, sustainable 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. documents include plans These programmes such as those detailed in Appendix (see also, Section 4 "Environmental Baseline", Section 5 "Strategic Environmental Objectives", Section 6 "Description Section 9 Alternatives" and "Mitigation Measures"). These documents have been subject to their own environmental assessment processes, as relevant.

The National Planning Framework (NPF) sets out Ireland's planning policy direction up to

2040. The NPF is to be implemented through Regional Spatial and Economic Strategies (RSESs) and lower tier Development Plans and Local Area Plans. The RSES for the Eastern and Midlands Region sets out objectives for land use planning, tourism, infrastructure, sustainable development, environmental protection and environmental management that have been subject to environmental assessment and must be implemented through the County Development Plan.

As required by the Planning and Development 2000, as amended, the County Development Plan is consistent with and conforms with national and regional policies, plans and programmes, including the NPF and the RSES for the Eastern and Midlands Region. The County Development Plan will, in turn, guide lower level strategic actions, such as the Local Area Plans that will be subject to their own lower-tier environmental assessments. In order to be realised, projects included in the County Development 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 licencing requirements other appropriate) that form the statutory decisionmaking and consent-granting framework.

#### 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 have taken place concurrently and the findings of the SEA, AA and SFRA have informed the Plan.

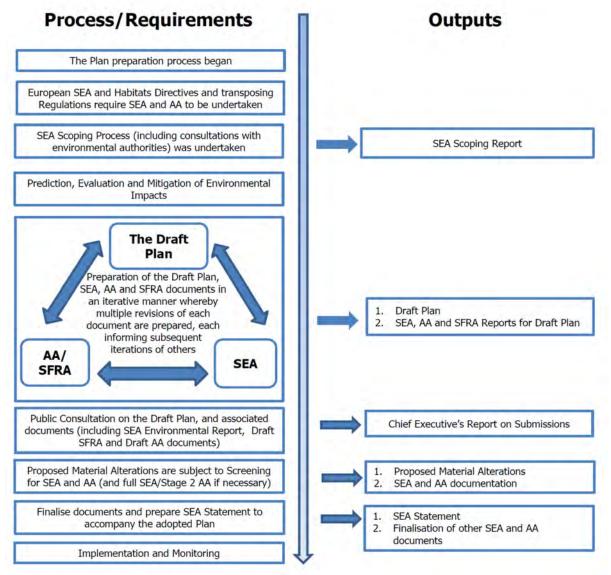


Figure 3.1 Overview of the SEA/AA/SFRA Plan-preparation Processes

# 3.2 Appropriate Assessment and Integrated Biodiversity Impact Assessment

#### 3.2.1 Appropriate Assessment

Appropriate Assessment (AA) Screening and Stage 2 AA have been 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.<sup>3</sup>

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) hass been undertaken alongside the Plan. The requirement for SFRA is 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. Recommendations from the SFRA have been integrated into the Plan.

#### 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

<sup>&</sup>lt;sup>3</sup> Except as provided for in Article 6(4) of the Habitats Directive, viz. There must be:

<sup>(</sup>a) no alternative solution available,

<sup>(</sup>b) imperative reasons of overriding public interest for the plan to proceed; and

<sup>(</sup>c) adequate compensatory measures in place.

relevant to the environmental components that are specified under the SEA Directive<sup>4</sup>.

All relevant environmental authorities identified under the SEA Regulations as amended, were sent SEA scoping notices by the Council 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 Council<sup>5</sup>.

Submissions made by the Environmental Protection Agency and Department of Communications, Climate Action and Environment 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.

# 3.6 Instances whereby Environmental Considerations were not integrated into the Plan

The Plan, considered as a whole, contributes towards environmental protection and management and sustainable development and complies with various legislative requirements. This is identified throughout the SEA documentation.

Various Plan provisions that would contribute towards the sustainable development of the County would, at the same time, have the potential to conflict with the environment, were mitigation measures not taken into account. This is normal and mitigation measures have

However, a small number of provisions have been adopted by the Elected Members as part of the Plan that are particularly internally inconsistent with the overall approach provided for by the Plan. The main such provisions – and the associated environmental assessment provided during the SEA/Plan preparation process – are summarised on Table 3.1.

Heritage, and the Gaeltacht; Department of Communications, Climate Action and Environment; Department of Housing, Planning and Local Government; Environmental Protection Agency; Offaly County Council; Kildare County Council; Carlow County Council; Kilkenny County Council; and Tipperary County Council.

been integrated into the Plan to deal with these potential effects.

<sup>&</sup>lt;sup>4</sup> 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.

<sup>&</sup>lt;sup>5</sup> The following authorities were notified: Department of Agriculture, Food and the Marine; Department of Culture,

Table 3.1 Plan Provisions that are internally inconsistent with the overall approach proper planning and sustainable development provided for by the Plan

Summary of Provision	Advice provided at time, including:
1.5 km separation distance in relation to wind farms	The Chief Executive advised to omit the separation distance as per recommendation from Office Planning Regulator, who identified that:
to wind rains	The Office has undertaken analysis of the implications of the policy using separation distances of 1,500 metres from residential development. The Office's analysis concludes that it would not be possible to progress a wind energy project with a 1.5km setback distance across the vast majority of the county's area.
	Indeed, the 1.5km setback distance has the effect of limiting the potential for wind farm development to an area in the northwest of the county which is constrained by the Slieve Bloom Mountains Special Protection Area (SPA), Special Area of Conservation (SAC) and proposed Natural Heritage Area (pNHA).
	The result of the above is to significantly undermine the contribution of the development plan to meeting national renewable energy targets under the Climate Action Plan 2019, which the Specific Planning Policy Requirement contained in the Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change (2017) requires the plan to identify as specific targets in megawatts.
Various zoning	SEA documentation at the time provided advice including that:
amendments in the settlements of Portlaoise, Stradbally, Abbeyleix and Timahoe	These Proposed Alterations would not be consistent with established population targets and/or the proper planning and sustainable development of the County. As a result they would present additional, unnecessary and potentially significant adverse effects on various environmental components, including soil, water, non-designated habitats and species, air and climatic factors and material assets. Much of the zoning provided for by these amendments is considered to be premature in the context of current population targets.
	Potentially significant adverse unnecessary effects, would be likely to include:
	Effects on non-designated habitats and species Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces Increased loadings on water bodies Conflict with efforts to maximise sustainable compact growth and sustainable mobility Occurrence of adverse visual impacts
	Where such alterations are further from the centre of settlements, potentially significant unnecessary adverse effects would be likely to include:
	Difficulty in providing adequate and appropriate waste water treatment as a result of zoning outside of established built development envelopes of settlements  Adverse impacts upon the economic viability of providing for public assets and infrastructure  Adverse impacts upon carbon emission reduction targets in line with local, national and European environmental objectives
	Conflicts between transport emissions, including those from cars, and air quality Conflicts between increased frequency of noise emissions and protection of sensitive receptors Potential effects on human health as a result of potential interactions with environmental vectors
Amendments to Rural Area Types	SEA documentation at the time advised that:
	These Proposed Alterations would not be consistent with the proper planning or sustainable development of the County. These Alterations would dilute the Plan's rural housing policy and are based on older requirements, guidance and data. As a result, it would present additional, unnecessary and potentially significant adverse effects on various environmental components, including soil, water, landscape, non-designated habitats and species, sustainable mobility and climate emission reduction targets.
Developments shall be no more than 3	SEA documentation at the time advised that:
storeys on greenfield sites	These Alterations would not provide the most evidence-based framework for development and have the potential to undermine sustainable development and proper planning, including compact growth, by placing non-evidence based restrictions on future growth. They do not align with higher level policy or guidance. These amendments have the potential to push development that would be appropriate in certain locations to more sensitive, less well-services, less well-connected locations.

# 3.7 Environmental Report

This SEA Environmental Report predicts and evaluates the likely significant effects of the Plan and the alternatives.

The Environmental Report provides Laois County Council, stakeholders and the public with a clear understanding of the likely environmental consequences of implementing 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.

An earlier version of this report was report was updated in order to take account of relevant recommendations contained in submissions and in order to take account of changes that were made to the original, Draft Plan that was placed on public display.

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

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

There is a data gap relating to WFD surface water status data. There are a number of waterbodies within the Plan area with overall status currently not assigned to them and the term "unassigned status" applies in respect of these waterbodies. The SEA ensured that the Plan contains measures that will contribute towards the maintenance and improvement of status of all water bodies within the zone of influence.

#### 3.8 SEA Statement

On finalisation of the Plan, an SEA Statement is prepared that includes 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 3.2 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, 8 and Appendix II
(I) A description of proposed monitoring measures	Section 10
(J) A non-technical summary of the above information	Appendix III 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-making<sup>6</sup>.

Given the potential for impacts beyond the County boundary, the spatial scope of the SEA takes into account the zone of influence (15km or greater where relevant) of the Plan area.

#### 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

the extent to which certain matters are more appropriately assessed at different levels in that process in order to avoid duplication of the assessment.

<sup>&</sup>lt;sup>6</sup> Note that 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,

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 wellbeing for all at all ages.
- 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 Plan it is uncertain how permission for new development would be applied for and considered.

The 2017-2023 Plan has contributed towards environmental protection within County Laois. If the 2017-2023 Plan was to expire and not be replaced by the 2021-2027 Plan, this would result in a deterioration of the County's protection planning and environmental Although framework. higher environmental protection objectives - such as those of various EU Directives and transposing Irish Regulations - would still apply, the deterioration of this framework would mean new development would be less coordinated and controlled.

As a result, there would be a decreased likelihood in the extent, magnitude and frequency of positive effects 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 County's settlements) 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 County 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 longestablished 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 County's settlements) 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 County and beyond
- Contribution towards the protection of human health by facilitating development of lands (including those within and adjacent to the County's settlements) 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 County 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 County's settlements) 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 County and beyond.
- Contribution towards the protection of the environment from contamination the highest standards of remediation, and where appropriate to consultations with the EPA and other relevant bodies, will be required to resolve any instances of environmental pollution created by contaminated land.

- Contribution towards the protection of water by facilitating development of lands (including those within and adjacent to the County's settlements) 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 County 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 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 County's settlements) 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 County 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 energy efficient buildings, retrofitting, smart buildings, cities and grids.
- Contribution towards climate mitigation and adaptation by facilitating compact development of lands (including those within and adjacent to the County's settlements) 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 County 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; and
  - Sectors including agriculture, forestry, energy and buildings.
- Contributes towards protection of cultural heritage elsewhere in the County by facilitating development within existing settlements.
- Contributes towards protection of cultural heritage within existing settlements by facilitating brownfield development and regeneration.
- Contributes towards protection of wider landscape and landscape designations by facilitating development within existing settlements.

As a result, there would be an increased likelihood in the extent, magnitude and

frequency of adverse effects on all environmental components 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 and bats.
- Potential adverse effects arising from flood events.
- 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 agriculture and soil, water, biodiversity and human health – including phosphorous and nitrogen deposition as a result of agricultural activities 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<sup>7</sup>

County Laois's natural capital comprises its 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 give us 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.

In recognition of the need to manage natural capital, provisions have been integrated into the Plan that will contribute towards management of air quality, noise pollution, light pollution, water quality and integrated catchment management.

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 genepools. Cultural services include non-material benefits that people obtain from ecosystems such as spiritual enrichment, intellectual development, recreation and aesthetic values<sup>8</sup>.

In preparing the Plan and developing policy objectives, the Council have followed these ecosystem services approach principles:

- Consideration of natural systems by using knowledge of interactions in nature and how ecosystems function (including at Plan Chapter 11 Biodiversity and Natural Heritage);
- b) Taking into account of the services that ecosystems provide including those that underpin social and economic well-being, such as flood and climate regulation (including at Plan Chapter 3: Climate Action and Energy and Chapter 10: Infrastructure), resources for food, fibre or fuel (including at Plan Chapter 9: Rural Laois), or for recreation, culture and quality of life (including at Plan Chapters 5 Quality of Life and Sustainable Communities, 8 Tourism, 10 Infrastructure and 12 Built and Cultural Heritage);
- c) Involving people those who benefit from the ecosystem services and those managing them need to be involved in decisions that affect them. Public consultation has informed the preparation of the Plan which will be further refined before adoption, taking into account submissions/observations made on the Plan during public display.

The following natural capital and ecosystem services issues are relevant to this SEA and have been taken into account in the provisions of the Plan:

- 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.

<sup>&</sup>lt;sup>7</sup> This section includes content taken from the Eastern and Midlands Regional Spatial and Economic Strategy (Eastern and Midlands Regional Assembly, 2019)

<sup>&</sup>lt;sup>8</sup> https://biodiversity.europa.eu/topics/ecosystem-services

# 4.6 Biodiversity and Flora and Fauna

#### 4.6.1 Overview

Information on biodiversity and flora and fauna that 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.

Ecological sensitivities in County Laois include peatlands, lakes, canals, woodlands, wetlands, grasslands, eskers and hedgerows. These habitats support a variety of species and ecosystems that contribute to the biodiversity of the County.

Ecological designations in County Laois include:

- Special Protection Areas<sup>9</sup>;
- Special Areas of Conservation<sup>10</sup>;
- Natural Heritage Areas<sup>11</sup> and Proposed Natural Heritage Areas<sup>12</sup>;
- Nature Reserves<sup>13</sup>;
- Certain entries to the Water Framework Directive Register of Protected Areas<sup>14</sup>;
- RAMSAR sites<sup>15</sup>;
- Biogenetic Reserves<sup>16</sup>;
- Freshwater Pearl Mussel catchments<sup>17</sup>;
- Salmonid Waters<sup>18</sup>;
- Tree Preservation Orders (TPOs)<sup>19</sup>;

Ecological connectivity and networks;

- CORINE Landcover<sup>20</sup>
- Peatlands, lakes, canals, woodlands, wetlands, grasslands, eskers and hedgerows; and
- Other sites of high biodiversity value or ecological importance<sup>21</sup>.

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

Potential overlaps in designations and settlements/zoning and sites of importance to birds associated with the zoning of lands adjacent to these sites have been also considered by the SEA and AA.

#### 4.6.2 European Sites

European Sites in the County occur in the greatest concentrations along the main waterways and wetlands. European Sites comprise:

- Special Areas of Conservation<sup>22</sup> (SACs); and
- Special Protection Areas<sup>23</sup> (SPAs).

The SEA uses the same zone of influence cited in the AA, a 15 km buffer around the County. There are 23 European sites (twenty-one SACs and two SPAs) designated within this zone (mapped on Figure 4.1) out of which 10

<sup>&</sup>lt;sup>9</sup> For more detail refer to Section 4.6.2.

<sup>&</sup>lt;sup>10</sup> For more detail refer to Section 4.6.2.

<sup>&</sup>lt;sup>11</sup> For more details refer to Section 4.6.3.

<sup>For more detail refer to Section 4.6.3.
For more detail refer to Section 4.6.6.</sup> 

<sup>&</sup>lt;sup>14</sup> For more detail refer to Sections 4.6.5 and 4.9.7.

<sup>&</sup>lt;sup>15</sup> For more detail refer to Section 4.6.6.

<sup>&</sup>lt;sup>16</sup> The Council of Europe launched the concept of a European Network of Biogenetic Reserves in 1973, the programme was started in 1976. Section I of the Annex to the Resolution (76) 17 (of the 1976 European Ministerial Conference on the Environment, Vienna) defines a Biogenetic Reserve as protected areas enjoying legal status and characterised by one or more typical, unique, endangered or rare habitats, biocenoses or ecosystems. The Slieve Bloom Mountains are a designated Biogenetic Reserve.

<sup>&</sup>lt;sup>17</sup> For more detail refer to Section 4.6.6.

<sup>&</sup>lt;sup>18</sup> Salmonid waters are designated and protected as under the European Communities (Quality of Salmonid Waters) Regulations 1988 (S.I. No. 293 of 1988). Designated Salmonid Waters are capable of supporting salmon (*Salmo salar*), trout (*Salmo trutta*), char (*Salvelinus*) and whitefish (*Coregonus*). For more detail refer to Section 4.6.5.

<sup>&</sup>lt;sup>19</sup> TPOs are a planning mechanism whereby individual trees or groups of trees can be identified as important and protected by a TPO. A number of TPOs have been identified in the Plan.

 $<sup>^{\</sup>rm 20}$  For more detail refer to Section 4.6.4.

<sup>&</sup>lt;sup>21</sup> For more details refer to Section 4.6.7.

<sup>&</sup>lt;sup>22</sup> 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.

<sup>&</sup>lt;sup>23</sup> 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 FII

European sites (eight SACs and two SPAs) are designated within or partially within the County and these include:

- Ballyprior Grassland SAC<sup>24</sup> (002256);
- Clonaslee Eskers and Derry Bog SAC<sup>25</sup> (000859);
- Coolrain Bog SAC<sup>26</sup> (002332);
- Knockacoller Bog SAC<sup>27</sup> (002333);
- Lisbigney Bog SAC<sup>28</sup> (000869);
- Mountmellick SAC<sup>29</sup> (002141);
- River Barrow and River Nore SAC<sup>30</sup> (002162);
- Slieve Bloom Mountains SAC<sup>31</sup> (000412);
- River Nore SPA<sup>32</sup> (004233); and
- Slieve Bloom Mountains SPA<sup>33</sup> (004160).

Other European sites (shown on Figure 4.2) connected to the County via hydrological links but beyond the 15 km buffer (four SACs and five SPAs), include:

- River Shannon Callows SAC34 (000216);
- Lower River Suir SAC35 (002137);
- Lower River Shannon SAC<sup>36</sup> (002165);
- Lough Derg, North-east Shore SAC<sup>37</sup> (002241);
- The Raven SPA<sup>38</sup> (004019);
- Lough Derg (Shannon) SPA<sup>39</sup> (004058);
- Wexford Harbour and Slobs SPA<sup>40</sup> (004076);
- River Shannon and River Fergus Estuaries SPA<sup>41</sup> (004077); and
- Middle Shannon Callows SPA<sup>42</sup> (004096).

For more detail on European Sites please refer the AA Natura Impact Report that accompanies Plan this **SEA** the and **Environmental Report.** 

#### 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 seminatural 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 nonstatutory basis in 1995, but have not since been statutorily proposed or designated.

There are two NHAs and twenty-eight pNHAs designated within, partially within or adjacent to the County. These sites (mapped on Figure 4.3) include:

- Clonreher Bog NHA (002357);
- Monaincha Bog/Ballaghmore Bog NHA (000652);
- Slieve Bloom Mountains pNHA (000412);
- Annaghmore Lough Fen pNHA (000413);
- Coolrain Bog pNHA (000415);
- Derries Wood pNHA(000416);
- Grantstown Wood and Lough pNHA (000417);
- Cuffsborough pNHA (000418);
- Knockacoller Bog pNHA (000419);
- The Curragh and Goul River Marsh pNHA (000420):
- Timahoe Esker pNHA (000421):
- Ballylynan pNHA (000857);

herb communities; old oak woodlands; alluvial forests; yew woodlands; freshwater pearl mussel; white-clawed crayfish; sea lamprey; brook lamprey; river lamprey; twaite shad; Atlantic salmon; and otter.

- <sup>36</sup> Sensitive features include: sandbanks; estuaries; tidal mudflats and sandflats; coastal lagoons; large shallow inlets and bays; reefs; perennial vegetation of stony banks; vegetated sea cliffs; salicornia mud; Atlantic salt meadows; Mediterranean salt meadows; floating river vegetation; molinia meadows; alluvial forests; freshwater pearl mussel; sea lamprey; brook lamprey; river lamprey; Atlantic salmon; bottle-nosed dolphin; and otter.
- <sup>37</sup> Sensitive features include: juniper scrub; cladium fens; alkaline fens; limestone pavement; alluvial forests; and yew woodlands.
- 38 Sensitive features include: wetland and waterbirds; redthroated diver; cormorant; common scoter; grey plover; sanderling; and Greenland white-fronted goose.
- Sensitive features include: cormorant; tufted duck; goldeneye; common tern; wetland and waterbirds.
- Sensitive features include: little grebe; great crested grebe; cormorant; grey heron; bewick's swan; whooper swan; light-bellied brent goose; shelduck; and wigeon.
- <sup>41</sup> Sensitive features include: cormorant; whooper swan; light-bellied brent goose; shelduck; wigeon; teal; pintail; shoveler; scaup; ringed plover; and golden plover.
- Sensitive features include: whooper swan; wigeon; corncrake; golden plover; lapwing; black-tailed godwit; black-headed gull; and wetland and waterbirds.

<sup>&</sup>lt;sup>24</sup> Sensitive features include: orchid-rich calcareous grassland.  $\,^{\rm 25}$  Sensitive features include: alkaline fens; and Geyer's

whorl snail.

<sup>&</sup>lt;sup>26</sup> Sensitive features include: raised bog; degraded raised bog; and rhynchosporion vegetation.

<sup>&</sup>lt;sup>27</sup> Sensitive features include: raised bog; degraded raised bog; and rhynchosporion vegetation.

<sup>&</sup>lt;sup>28</sup> Sensitive features include: fens; and Desmoulin's whorl snail.

<sup>&</sup>lt;sup>29</sup> Sensitive features include: Desmoulin's whorl snail.

<sup>&</sup>lt;sup>30</sup> Sensitive features include: estuaries; tidal mudflats and sandflats; reefs; salicornia mud; Atlantic salt meadow; Mediterranean salt meadows; floating river vegetation; dry heath; hydrophilous tall herb communities; petrifying springs; old oak woodlands; alluvial forests; Desmoulin's whorl snail; freshwater pearl mussel; white-clawed crayfish; sea lamprey; brook lamprey; river lamprey; twaite shad; Atlantic salmon; otter; Killarney fern; Nore freshwater pearl mussel.

<sup>&</sup>lt;sup>31</sup> Sensitive features include: wet heath; blanket bogs; and alluvial forests.

<sup>&</sup>lt;sup>32</sup>Sensitive features include: kingfisher.

<sup>&</sup>lt;sup>33</sup> Sensitive features include: hen harrier.

<sup>&</sup>lt;sup>34</sup>Sensitive features include: molinia meadows; lowland; hay meadows; limestone pavement; alluvial forests and otter.

<sup>35</sup> Sensitive features include: Atlantic salt meadows; Mediterranean salt meadows; floating river vegetation; tall

- Barrow Valley at Tankardstown Bridge pNHA (000858);
- Clonaslee Eskers and Derry Bog pNHA (000859);
- Clopook Wood pNHA (000860);
- Coolacurragh Wood pNHA (000862);
- Delour River Near Lacca Manor pNHA (000864);
- Emo Court pNHA (000865);
- Kilteale Hill pNHA (000867);
- Mannin Wetland pNHA (000868);
- Lisbigney Bog pNHA (000869);
- Forest House Wood pNHA (000874);
- Ridge of Portlaoise pNHA (000876);
- Rock of Dunamase pNHA (000878);
- The Great Heath of Portlaoise pNHA (000881);
- Dunamase Woods pNHA (001494);
- Stradbally Hill pNHA (001800);
- Shanahoe Marsh pNHA (001923);
- River Nore/ Abbeyleix Woods Complex pNHA (002076); and
- Grand Canal pNHA (002104).

#### 4.6.4 Land Cover Mapping

CORINE<sup>43</sup> land cover mapping for the County is shown on Figure 4.4. The most dominant land cover type is pastures. There is also a concertation of peatlands in upland areas, mainly in the north-west of the County. Categories from CORINE mapping that may indicate areas with the potential for Annex I habitats (see Figure 4.5), include:

- Peat bogs;
- Natural grassland;
- Water bodies;
- Mixed forests;
- Coniferous forest;
- Broad-leaved forest;
- Inland marshes;
- Moors and heaths;
  - Complex cultivated patterns;
- Non-irrigated land;
- Pastures;
- Transitional woodland and scrub; and
- Land principally occupied by agriculture with areas of natural vegetation.

### 4.6.5 Register of Protected Areas

In response to the requirements of the Water Framework Directive 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). These designations include:

WFD Salmonid River Regulations (S.1. 293 of 1988 only) – The River Nore in the south of the Plan area is designated as a Salmonid River under S.1. No. 293. This river and associated WFD Surface Waters in Salmonid Waters<sup>44</sup> and Groundwater in Salmonid Regulations are shown on Figure 4.6.

RPAs relating to Nutrient Sensitive Waters, Bathing Waters and water bodies used for Drinking Water are addressed under Section 4.9 "Water".

There are a number of water dependent habitats in the County which have been listed on the Register – these relate to designated SACs and SPAs (see Section 4.6.2).

#### 4.6.6 Other Designations

Other designations mapped on Figure 4.3 include Ramsar sites and Nature Reserves.

The Convention of Wetlands of International Importance, especially as Water Fowl Habitat, was established at Ramsar in 1971 and ratified by Ireland in 1984. The main aim of the Convention is to secure the designation by each contracting state of wetlands in its territory for inclusion in a list of wetlands of international importance for waterfowl. This entails the commitment of each contracting state to a policy of protection and management of the designated wetlands, and of formulating and implementing planning so as to promote the conservation of designated wetlands and, as far as possible, the wise use of wetlands in its territory. Ireland presently has 45 sites designated as Wetlands of International Importance, with surface areas of 66,994 hectares. There is one Ramsar site designated within County Laois, at the Slieve Bloom Mountains (shown on Figure 4.3).

Nature Reserves are areas of importance to wildlife, which is protected under Ministerial order. There are currently 78 Statutory Nature

Peatlands and wetlands are the second most widespread land cover type, covering almost one-fifth of the country. While forested areas cover about one-tenth of the country. Despite rapid development in the past two decades, Ireland's landscape is predominantly rural and agricultural. <sup>44</sup> WFD Surface Water Bodies intersecting with WFD Designated Salmonid Waters under S.I. No. 293/1988 - European Communities (Quality of Salmonid Waters) Regulations 1988.

<sup>&</sup>lt;sup>43</sup> The CORINE (Coordinated 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. CORINE has become a key data source for informing environmental and planning policy on a national and European level. The main land cover type in Ireland is agricultural land including forestry, which accounts for two-thirds of the national landmass. Most of this is permanent grassland pastures.

Reserves in Ireland. Most are owned by the State but some are owned by organisations or private landowners. There are four Nature Reserves in County Laois (mapped on Figure 4.3): Coolacurragh Wood; Slieve Bloom Mountains; Grantsown Wood and Granston Lough; and Timahoe Esker.

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 (Margaritifera margaritifera and Margaritifera durrovensis) and both are protected under Annex II and Annex V of the EU Habitats Directive. Nore pearl mussel (Margaritifera durrovensis) species are found in the following river catchments in County Laois: Carrownisk-Bunleemshough; Bunowen; Bundorragha; Owenwee; Erriff; Newport; Corrib-Finny; Moy-Deel; and Moy-Tobergal. These areas (mapped on Figure 4.5) include:

- Barrow (Previous record Margaritifera, current status unknown);
- Nore Upper (Catchments of SAC populations listed in S.I. 296 of 2009);
- Nore Middle (Catchments of other extant populations);
- Nore Lower (Previous record Margaritifera, current status unknown); and
- Suir (Previous record Margaritifera, current status unknown).

# 4.6.7 Other Sites of Ecological Importance

Within and surrounding the County, the ecological networks are made up of components including rivers, streams and their tributaries and banks, the various woodlands, parks, gardens and hedgerows within and surrounding the Plan area and lands used for agriculture. These components provide habitats for flora and fauna and facilitate linkages to the surrounding countryside for flora and fauna.

Public parks and open spaces within the Plan area are important for biodiversity in urban settings. These spaces provide a habitat for birds, insects and small mammals. Parks also support numerous plants, hedgerows and

woodlands acting as a wildlife corridor connecting habitats in the area.

Hedgerows are a valuable resource in the countryside, benefiting agriculture, wildlife, tourism, and the general community. There is an extensive network of hedgerows throughout County Laois, providing links between wildlife habitats, thereby allowing the movement and dispersal of species through the largely agricultural landscape.

Eskers are long narrow ridges comprising of sand, gravel and boulders, which were deposited by a stream flowing on, within, or beneath a glacier. Examples of esker systems in the County include those at Timahoe and Clonaslee.

Peatlands are unique systems comprising of peat soil providing as significant carbon stores and supporting a range of unique species. The majority of larger peatland areas in the County are located in the north-west within the Slieve Blooms and to the south and south-west of Portlaoise. Approximately 3,000 ha of peatlands is under the ownership of Bord Na Mona with most of it utilised for industrial peat extraction, such as cutaway peatlands in between Portlaoise, Mountrath and Abbeyleix. 45

#### 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-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, nonrenewable 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;

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<sup>&</sup>lt;sup>45</sup> Laois CDP 2021-2027

- 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.

The Plan includes measures to contribute towards the protection of biodiversity and flora and fauna and associated ecosystem services.

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.

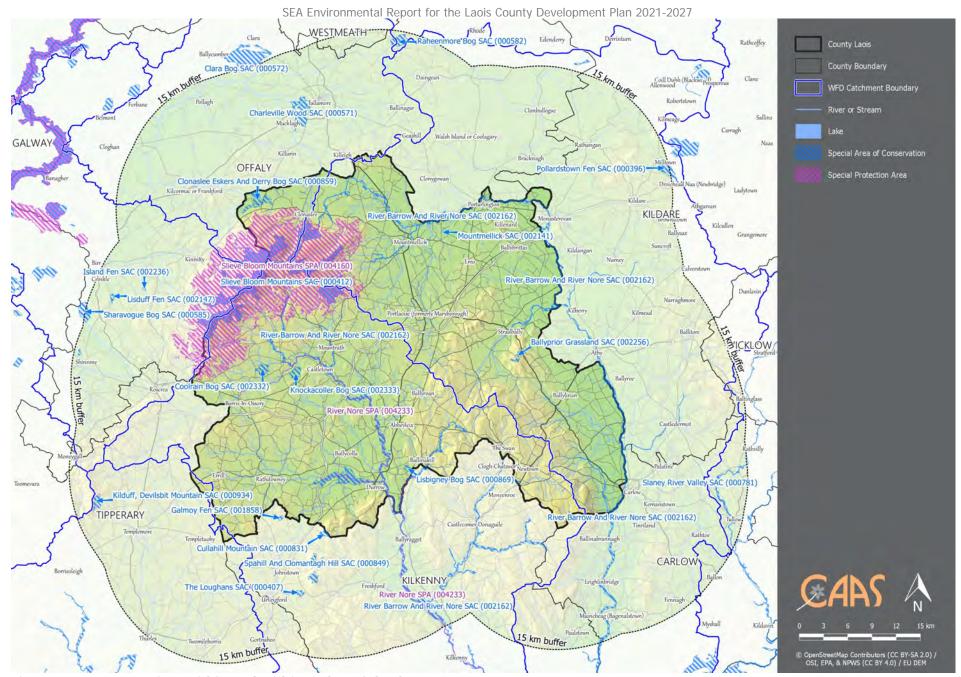


Figure 4.1 European sites within and within 15 km of the County

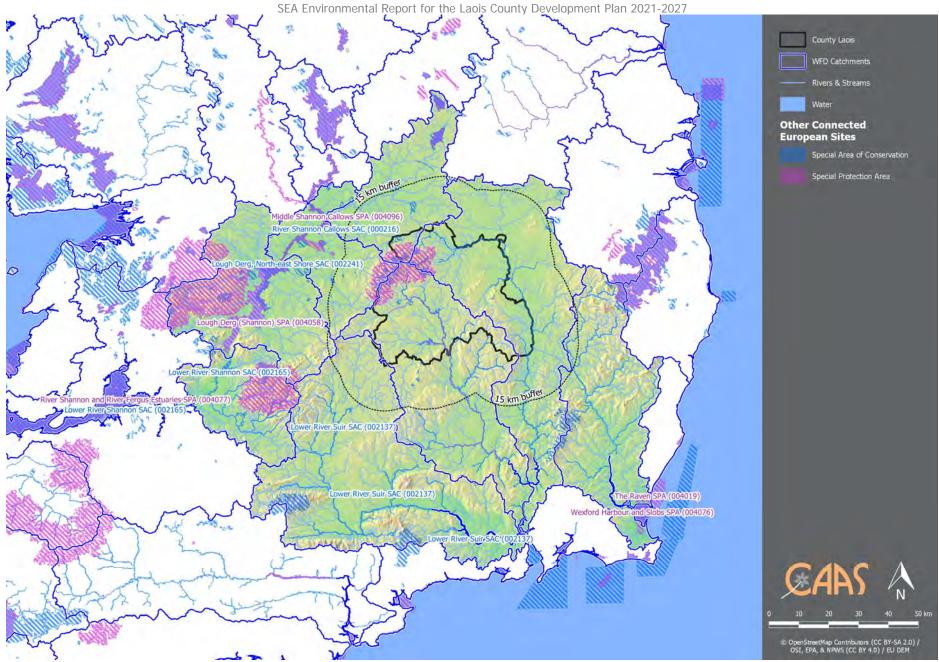


Figure 4.2 European sites connected to the County but beyond 15 km of the County

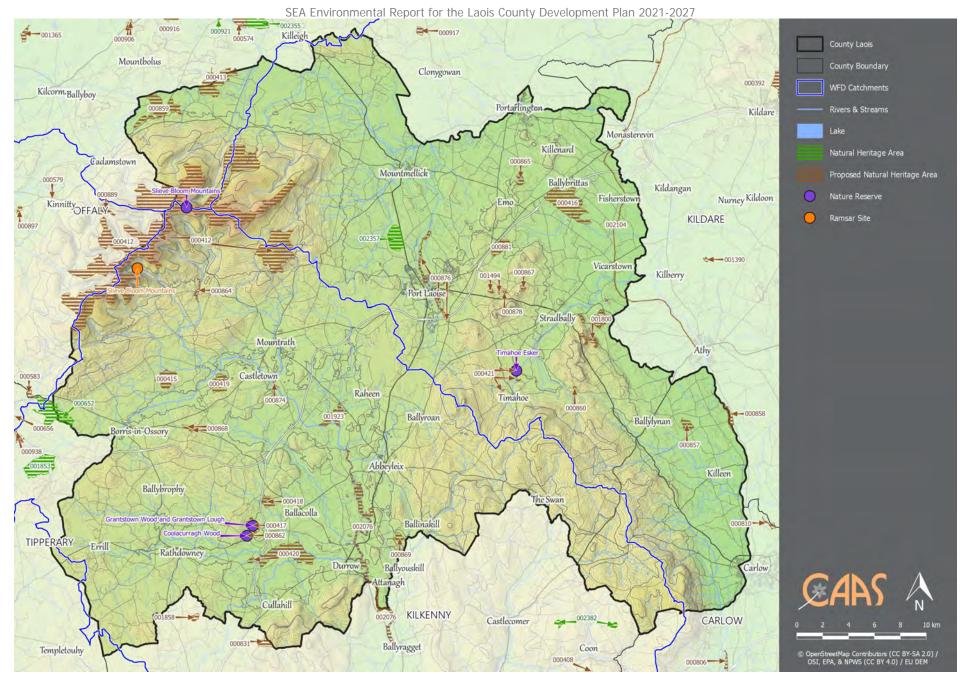


Figure 4.3 Natural Heritage Areas, Proposed Natural Heritage Areas and Other Designations

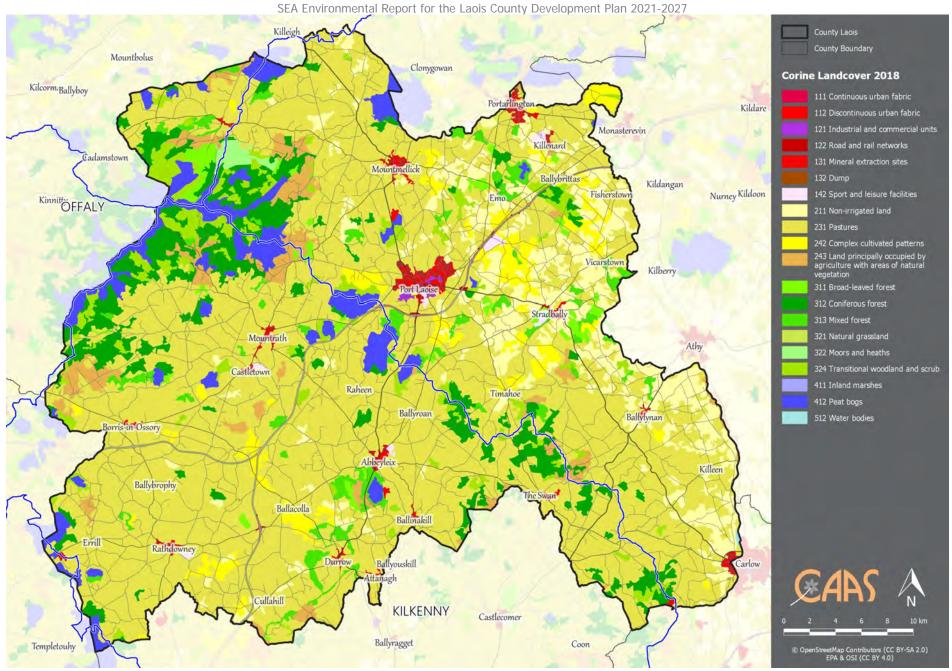


Figure 4.4 CORINE Land Cover 2018

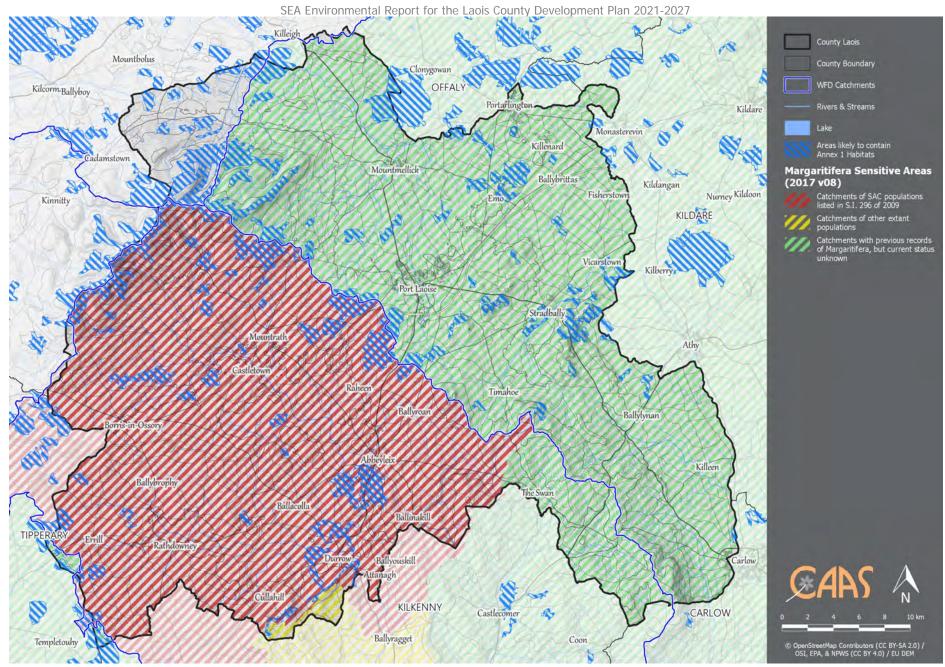


Figure 4.5 Areas with the potential for Annex I Habitats and Margaritifera Sensitive Areas

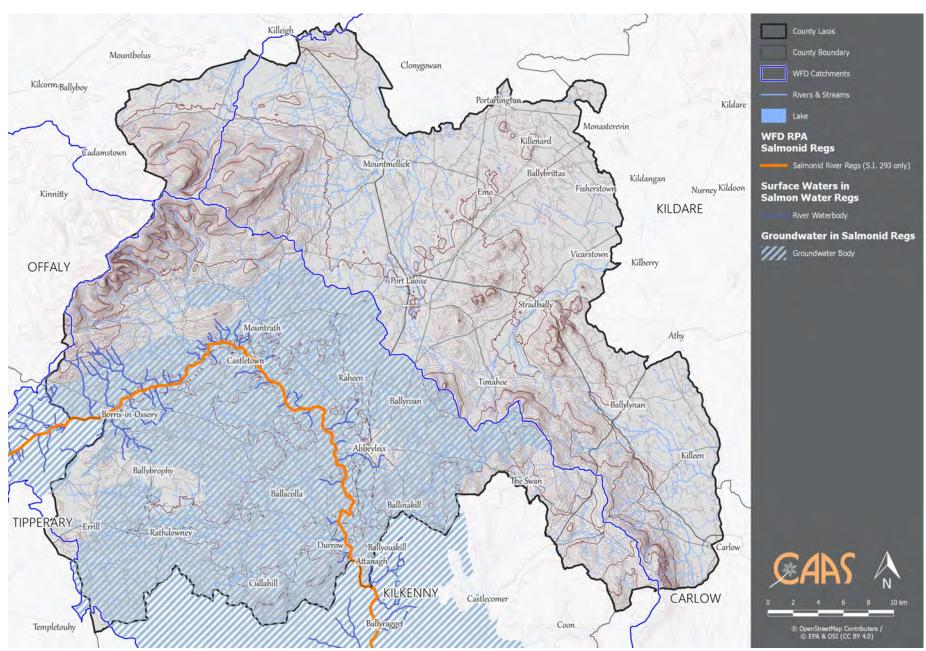


Figure 4.6 WFD Register of Protected Areas Salmonid Waters

# 4.7 Population and Human Health

#### 4.7.1 Population

In the 2016 Census the total population of County Laois was identified as being 84,697 persons, showing an increase in total population of c. 5.1% (4,138 persons) since the previous Census. The population of County Laois is estimated to increase further, up to 92,500-94,000 persons by 2026 and 95,500-97,500 persons by 2031, as set out by the NPF and RSES for Eastern and Midland Region.

The provision of additional housing over the Plan period is dictated by the Core Strategy that guides where new development should be allocated in accordance with national and regional strategies and policies, including the National Planning Framework and the Regional Spatial and Economic Strategy for Eastern and Midland Region.

The Plan designates a hierarchy of the County's settlements as follows:

- Key towns (Portlaoise and Graiguecullen);
- Self-sustaining growth towns (Portarlington);
- Self-sustaining towns (Mountmellick, Abbeyleix, Stradbally and Mountrath);
- Towns and villages (Durrow, Rathdowney and Ballyinan);
- Rural serviced (Clonaslee, Killenard, Ballinakill and Borris in Ossary); and
- Rural remainder.

Portlaoise and Graiguecullen are identified as 'Key Towns' by the Eastern and Midlands Regional Spatial and Economic Strategy 2019-2031. Portlaoise acts as a key population and employment centre for the surrounding hinterland as well as providing important interregional links to the south and south-west. In the 2016 Census the total population of Portlaoise was identified as being 22,050 Graiguecullen serves persons. Laois/Carlow cross-boundary economic and employment centre with high quality transport links to the eastern, midland and southern regions.

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

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

#### 4.7.2 Human Health

Human health has the potential to be impacted environmental by vectors upon environmental components such as air, water or soil through which contaminants or pollutants, which have the potential to cause harm, can be transported so that they come into contact with human beings). Hazards or nuisances to human health can arise as a result of exposure to these vectors arising from incompatible adjacent land uses for example. 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 Ωf implementing the Plan.

#### 4.7.3 Existing Problems

There is historic and predictive evidence of flooding in various locations across the County (see information on Strategic Flood Risk Assessment at Section 4.9.8).

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. The number of homes within the County with radon levels above the reference level is within the normal range experienced in other locations across the country<sup>46</sup>.

<sup>&</sup>lt;sup>46</sup> Mapping available at <a href="http://www.epa.ie/radiation/radonmap">http://www.epa.ie/radiation/radonmap</a>

Information on the status of groundwaters and surface waters is provided under Section 4.9 while compliance issues in relation to water services are detailed under Section 4.11.9.

#### 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. Although a proposal for a Soil Framework Directive was withdrawn in 2014, the importance of sustainable soil management was recognised in the Seventh Environment Action Programme, where sustainable land management is to be achieved by 2020.

Luvisols<sup>47</sup> and groundwater gleys<sup>48</sup> are the two most dominant soil types across the Plan area (see Figure 4.7). Other soil types identified include:

- Alluvial soils<sup>49</sup> (in the flood plains of rivers and streams):
- Brown podzol<sup>50</sup> (in the Slieve Bloom Mountains, west of the Plan area);

- Surface Water Gleys (mainly in depressions in the upper reaches of river valleys in both uplands and lowlands):
- Brown earths<sup>51</sup> (mainly in small areas in the centre and the south of the Plan area);
- Rendzina<sup>52</sup> (mainly in the east of the Plan area);
   and
- Podzol<sup>53</sup> (mainly in the north-west pf the Plan area).

Active blanket bogs and active raised bogs are considered to be priority habitats, listed on Annex I of the EU Habitats Directive. Peat soils are often indicative of areas that are the most sensitive to development due to ecological sensitivities and impeded drainage issues. Many of these peat areas are also subject to ecological designations (see Figure 4.1). The ombrotrophic (rain-fed) peat soils occur mainly in the upland locations in the north and northwest of the County (shown on Figure 4.7).

In addition to being significant net sinks of carbon, peatlands have the potential to be net sources of carbon if these soils are drained or extracted as part of land management activities.

The GSI 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:

- Bedrock mapping;
- Quaternary and Physiographic mapping; and
- National Aquifer and Recharge mapping.

## 4.8.1 Geological Sites

Geological Survey of Ireland coordinates the Irish Geological Heritage Programme, which seeks to identify and select sites of geological interest within each county across the country. The audit of County Geological Sites in County Laois (completed in 2016) located 33 County Geological Sites occurring throughout County Laois (as mapped on Figure 4.8)<sup>54</sup>. These sites include quarries, springs, eskers and caves.

<sup>&</sup>lt;sup>47</sup> Luvisol soils are generally fertile, widely used for agriculture and associated with significant accumulation of clay.

<sup>&</sup>lt;sup>48</sup> Surface water gleys and groundwater gleys are wetland soils with slowly permeable horizons resulting in seasonal waterlogging.

<sup>&</sup>lt;sup>49</sup> These are associated with alluvial (clay, silt or sand) river deposits.

<sup>&</sup>lt;sup>50</sup>Brown podzol soils are characterised by dark brown humus-mineral soil covered with a thin mat of partly decayed leaves.

<sup>&</sup>lt;sup>51</sup> Brown earths are well drained mineral soils, associated with high levels of natural fertility.

<sup>&</sup>lt;sup>52</sup> Rendzina soils are shallow calcareous soils with hard rock or skeletal material comprising coarse fragments.

<sup>53</sup> Infertile acidic soils with an ash-like subsurface layer associated with acid leaching typically formed under coniferous forest.

<sup>&</sup>lt;sup>54</sup> Individual audited site reports for County Laois are available from the GSI (<u>www.gsi.ie</u>).

# 4.8.2 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 County Laois, especially where land uses occurred in the past in the absence of environmental protection legislation.

# 4.8.3 Source Protection Areas

Source Protection Area delineation provides an assessment of the land area that contributes groundwater to a borehole or spring. Source reports have been undertaken by the GSI on behalf of Local Authorities since the mid-1990s.

The Public Supply Source Protection Areas comprises Source Protection Areas around groundwater abstraction points that are managed by Irish Water to supply Public Water Supply Schemes across Ireland.

The objective of the Source Protection Areas is to provide protection by placing tighter controls on activities within all or part of the zone of contribution of the source. The Zone of Contribution is the land area that contributes water to the well or spring. The Inner Protection Area (SI) is designed to protect against the effects of human activities that might have an immediate effect on the source and, in particular, against microbial pollution. The Outer Protection Area (SO) is encompassing the remainder of the zone of contribution to the groundwater abstraction point (e.g. borehole or spring).

The Group Scheme Preliminary Source Protection Areas comprise Zones of Contribution to groundwater abstraction points that supply Group Water Schemes across Ireland that are affiliated to the National Federation of Group Water Schemes and that supply more than 15 people. The Zones of

Contribution are preliminary protection areas around groundwater abstractions, but are not full Source Protection Areas.

Groundwater bodies are important water supply sources for private wells, group schemes and local authority supplies and for use in a range of commercial activities. Groundwater directly and indirectly contributes to and sustains a variety of important ecosystems. This is particularly the case in rural areas that are not served by public or group water schemes, with private bored wells being the only source of supply.

There are a number of Public Water Supply Source Protection Areas identified within County Laois. These include Inner Protection Areas (SI), Outer Protection Areas (SO) and Group Scheme Preliminary Source Protection Areas, as shown on Figure 4.8.

#### 4.8.4 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, pollution of watercourses and impacts upon aquatic biodiversity.

The Plan area has several locations with a history of landslide events<sup>55</sup>. Many of these events are associated with the upland peatland areas including Slieve Bloom Mountains (2009, c. 2000, and 1988); as shown on Figure 4.9.

The GSI have identified that most of the Plan area has relatively low levels of landslide susceptibility with areas of high susceptibility in the upland areas in the north-west of the County and in the east and south-east as shown on Figure 4.9.

# 4.8.5 Existing Problems

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

assist in the identification of areas that are likely to experience land sliding.

<sup>&</sup>lt;sup>55</sup> Over 2,500 landslide events are recorded in the National Landslides Database available from GSI (<u>www.gsi.ie</u>). This dataset also includes Landslide Susceptibility Mapping to

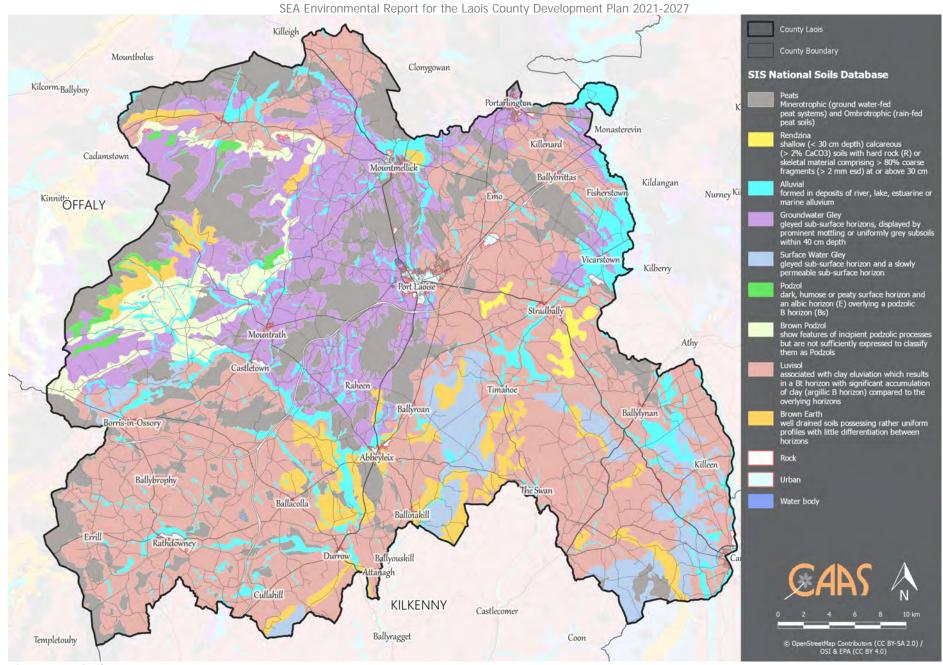


Figure 4.7 Soil Type

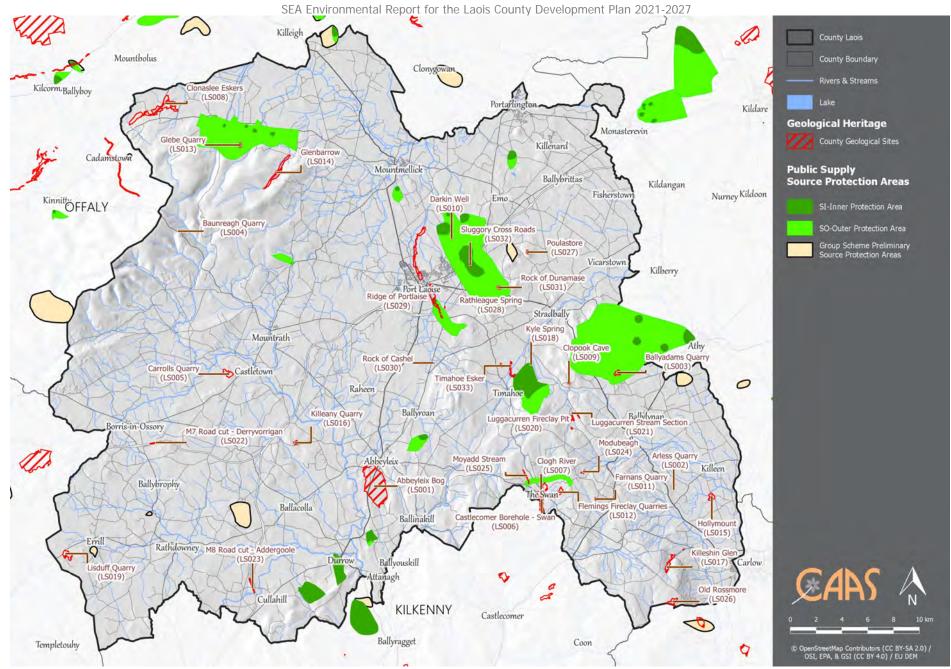


Figure 4.8 Source Protection Areas and County Geological Sites

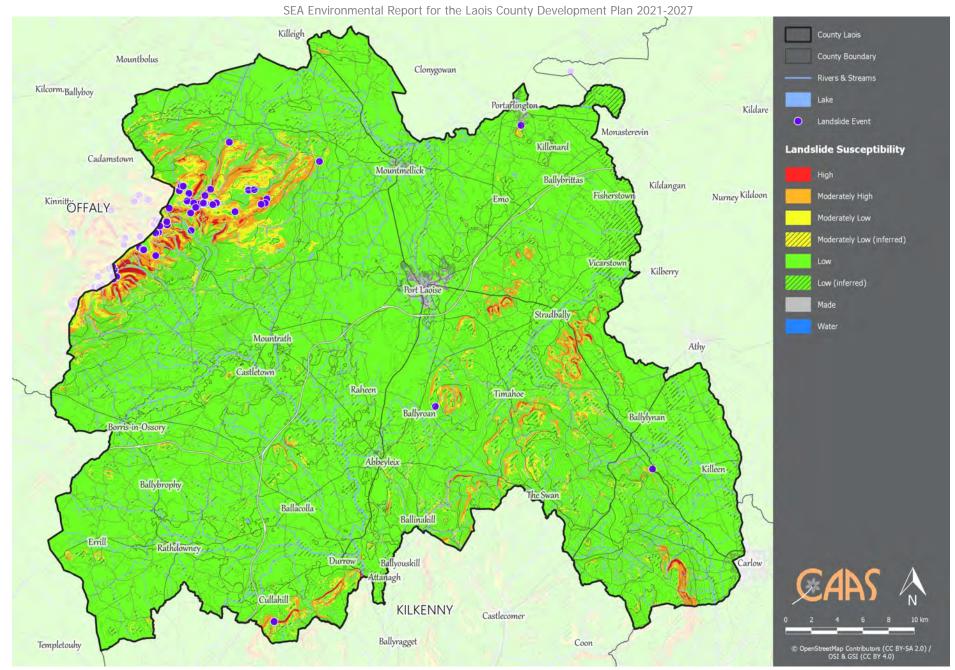


Figure 4.9 Landslide Susceptibility and Previous Landslide Events

#### 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 that 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 County boundary, with respect to impacts upon waters can be estimated to be all bodies of groundwater and all surface waters downstream areas of catchments which drain 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.

The County is located within the Nore and Barrow catchments and partially within the Suir and Lower Shannon catchments.

The main waterways in the County include the Barrow, Nore and Erkina, which flow in a northwest-southeast trajectory and the manmade lakes at Ballyfin, Grantstown and Heywood. The Grand Canal also passes through the north-east of the County where it links to the wider River Barrow navigation system.

#### 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'.

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 WFD surface water status (2013-2018), for rivers and canals within and surrounding the County is shown on Figure 4.10.

In addition, there are a number of *unassigned*<sup>56</sup> river and canal waterbodies across the County.

The WFD status of most of the surface waters in the County is classified as *moderate*, *good* and *high*; however, some sections<sup>57</sup> of rivers including sections of the Ballyroan, Barrow, Cappanacloghy, Gorteenahilla and Triogue are identified as *poor* due to unsatisfactory ecological/biological and/or physio-chemical status.

In addition to this, many water bodies are identified as being at risk of not achieving their water quality objectives due to the damage being caused by significant pressures. Significant pressures, those pressures which need to be addressed in order to improve water quality, have been identified for waterbodies that are 'At Risk' of not meeting their water quality objectives under the WFD. Significant pressures for surface water bodies within or adjacent to County Laois are identified on Table 4.1. There are various types of pressures identified, such as:

- Agricultural pressures can 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 can 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.
- Urban wastewater pressures can include direct discharge of nutrients from urban wastewater treatment plants and discharge from combined storm overflows or storm water overflows. Discharges of elevated concentrations of phosphorus, ammonium and nitrogen impact on the ecology of surface waters.

- Hydromorphological and anthropogenic pressures are identified together in many instances. Hydromorphological pressures can 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 (chanellisation), land drainage or hard infrastructure such as dams, weirs, culverts or other obstructions. Anthropogenic pressures can include: water abstractions; invasive species; agriculture; use of fertilizers, manures and animal husbandry activities; pesticides; inefficient irrigation practices; deforestation of woods; aquaculture; pollution due to industrial effluents and domestic sewage; mining; and recreational activities.
- Industrial pressures can include discharges and emissions from industrial and commercial facilities.
- Extractive industry related pressures can include different activities that lead to the extraction of raw materials from the earth, such as oil, metals, mineral and aggregates. Impacts from extractive sites include sediment/siltation pollution and alteration to the physical environment.
- Forestry pressures can include poorly managed and inappropriately sited forest operations, negatively impact on water quality and aquatic habitats and species. The most common water quality problems arising from forestry relate to the release of sediment and nutrients and the impacts from acidification. Forestry may also give rise to changes in stream flow regimes caused by associated land drainage.

<sup>&</sup>lt;sup>56</sup> There is a data gap relating to WFD surface water status data. There are a number of waterbodies within the Plan area with overall status currently not assigned to them and the term "unassigned status" applies in respect of these waterbodies.

As per EPA classification system (gis.epa.ie/EPAMaps)
 EPA (2019): Report on Water Quality in Ireland 2013-2018

Table 4.1 WFD Surface Waterbody Status and Pressures<sup>59</sup>

Waterbody Name (EPA Identification Code) <sup>60</sup>	Waterbody Type	WFD Surface Waterbody Status (2013 -2018) <sup>61</sup>			
Ballyroan_010	River	Poor - due to poor ecological/biological status. This waterbody is als identified as being under significant pressure from agricultural an urban wastewater sources.			
Barrow_090	River	Poor - due to poor ecological/biological status. This waterbody is als identified as being under significant pressure fror hydromorphological/anthropogenic sources.			
Barrow_140	River	Poor - due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agricultural and hydromorphological/anthropogenic sources.			
Cappanacloghy_010	River	<b>Poor</b> - due to poor ecological/biological status. This waterbody is also identified as being <b>under significant pressure from extractive industry related sources</b> .			
Clonawoolan Stream_010	River	Poor - due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agricultural, extractive industry related and forestry sources.			
Erkina_040	River	Poor – due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from industrial and urban wastewater sources.			
Gorteenahilla_010	River	Poor - due to poor ecological/biological status. No pressures identified.			
<b>Goul</b> _060	River	Poor - due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agricultural sources.			
<b>Gully_</b> 010	River	<b>Poor</b> - due to poor ecological/biological status. This waterbody is also identified as being <b>under significant pressure from agricultural sources</b> .			
Rathdowney Stream_010	River	Poor - due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agricultural and industrial sources.			
Triogue_020	River	Poor - due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from urban wastewater and urban run-off sources.			
Triogue_030	River	Poor - due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agricultural and urban run-off sources.			
Triogue_040	River	Poor - due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agricultural sources.			
Ballynacarrig_010	River	Moderate. This waterbody is also identified as being under significant pressure from agricultural and forestry sources.			
Ballyroan_020	River	Moderate. This waterbody is identified as being under significant pressure from hydromorphological/anthropogenic sources.			
Barrow_040	River	Moderate. This waterbody is also identified as being under significant pressure from agricultural sources.			
Barrow_080	River	Moderate. This waterbody is also identified as being under significant pressure from urban wastewater sources.			
Barrow_160	River	Moderate. This waterbody is identified as being under significant pressure from hydromorphological/anthropogenic and urban runoff sources.			
Barrow_170	River	Moderate. This waterbody is identified as being under pressure from agricultural and hydromorphological/anthropogenic sources.			
Blackwater (Laois)_010	River	Moderate. This waterbody is identified as being under pressure from agricultural sources.			
Cushina_010	River	Moderate. This waterbody is identified as being under pressure from agricultural and extractive industry related sources.			
Dinin (South)_010	River	Moderate. No pressures identified.			
Donaghmore Stream_010	River	Moderate. This waterbody is identified as being under pressure from agricultural sources.			
Douglas (Laois)_030	River	Moderate. This waterbody is identified as being under pressure from agricultural and urban wastewater sources.			
Erkina_030	River	Moderate. No pressures identified. This waterbody is identified as being under pressure from industrial and urban wastewater sources.			
Erkina_050	River	Moderate. This waterbody is identified as being under pressure from agricultural sources.			
<b>Goul</b> _050	River	Moderate. This waterbody is identified as being under pressure from agricultural sources.			
<b>Gully_</b> 020	River	Moderate. This waterbody is identified as being under pressure from hydromorphological/anthropogenic sources.			
Mountrath_020	River	Moderate. No pressures identified.			
Mountrath_030	River	Moderate. No pressures identified.			

<sup>59</sup> Source: <a href="https://gis.epa.ie/FPAMaps/">https://gis.epa.ie/FPAMaps/Water</a>
60 The number at the end of each river water body name indicates where the waterbody is located along the main river channel. For example, the waterbody at the source is coded '\_010', the next waterbody downstream is coded '\_020' and the final waterbody before the river becomes transitional is '\_180'.

61 There is a data gap relating to WFD surface water status data. There are a number of waterbodies within the Plan area with overall status currently not assigned to them and the term "unassigned status" applies in respect of these waterbodies. These are not included on Table 4.1.

Waterbody Name (EPA Identification Code) <sup>60</sup>	Waterbody Type	WFD Surface Waterbody Status (2013 -2018) <sup>61</sup>
Owenass_020	River	Moderate. This waterbody is identified as being under pressure from
Silver (Kilcormac)_020	River	agricultural and urban wastewater sources.  Moderate. This waterbody is identified as being under pressure from agricultural and hydromorphological/anthropogenic sources.
Stradbally (Laois)_030	River	Moderate. This waterbody is identified as being under pressure from urban wastewater sources.
Stradbally (Laois)_040	River	Moderate. No pressures identified.
Tonet_020	River	Moderate. This waterbody is identified as being under pressure from forestry sources.
Tonet_030	River	Moderate. This waterbody is identified as being under pressure from forestry sources.
Trib Triogue Cush Bridge_010	River	Moderate. This waterbody is identified as being under pressure from forestry and agricultural sources.
Barrow_020	River	Good. No pressures identified.
Barrow_030	River	Good. No pressures identified.
Barrow_060	River	Good. No pressures identified.
Barrow_070	River	Good. No pressures identified.
Barrow_110	River	Good. No pressures identified.
Barrow_120	River	Good. No pressures identified.
Cappanacloghy_020	River	Good. No pressures identified.
Clodiagh (Tullamore)_010	River	Good. No pressures identified.
Clodiagh (Tullamore)_020	River	Good. No pressures identified.
<b>Clogh_</b> 010	River	Good. This waterbody is identified as being under pressure from agricultural sources.
Crooked (Stradbally)_010	River	Good. No pressures identified.
Dinin (North)_010	River	Good. This waterbody is identified as being under pressure from
		agricultural sources.
Dinin (North)_020	River	Good. No pressures identified.
Dinin (South)_020	River	Good. This waterbody is identified as being under pressure from hydromorphological/anthropogenic sources.
Douglas (Laois)_020	River	Good. No pressures identified.
Dunrally Stream_010	River	Good. No pressures identified.
Dunrally Stream_020	River	Good. No pressures identified.
Erkina_010	River	Good. This waterbody is identified as being under pressure from hydromorphological/anthropogenic sources.
Errill_020	River	Good. This waterbody is identified as being under pressure from agricultural sources.
Fushoge_010	River	Good. No pressures identified.
Fushoge_020	River	Good. No pressures identified.
Glenlahan_010	River	Good. No pressures identified.
Gorragh_010	River	Good. No pressures identified.
<b>Gully_</b> 030	River	Good. No pressures identified.
Killeen (Delour)_010	River	Good. No pressures identified.
Lisdowney_010	River	Good. This waterbody is identified as being under pressure from agricultural sources.
Mountrath_010	River	Good. No pressures identified.
Nore_040	River	Good. This waterbody is identified as being under pressure from agricultural, extractive industry related and forestry sources.
<b>Nore_</b> 060	River	Good. No pressures identified.
<b>Nore_</b> 110	River	Good. No pressures identified.
Owenass_010	River	Good. No pressures identified.
Owveg (Nore)_010	River	Good. No pressures identified.
Owveg (Nore)_020	River	Good. No pressures identified.
Owveg (Nore)_030	River	Good. This waterbody is identified as being under pressure from agricultural sources.
Owveg (Nore)_040	River	Good. No pressures identified.
Owveg (Nore)_050	River	Good. No pressures identified.
Stradbally (Laois)_010	River	Good. No pressures identified.
Stradbally (Laois)_020	River	Good. No pressures identified.
Triogue_010	River	Good. This waterbody is identified as being under pressure from agricultural sources.
Grand Canal Barrow Line (Barrow)	Canal	Good. No pressures identified.
Barrow_010	River	High. No pressures identified.
Delour_010	River	High. No pressures identified.
Delour_020	River	High. No pressures identified.
Delour_030	River	High. No pressures identified.
Douglas (Laois)_010	River	High. No pressures identified.
Needleford Stream_010	River	High. This waterbody is identified as being under pressure from agricultural and extractive industry related sources.
Nore_080	River	High. No pressures identified.
Nore_090	River	High. No pressures identified.
Nore_100	River	High. No pressures identified.
Tonet_010	River	High. No pressures identified.

#### 4.9.5 Ground Water

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 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 (2013-2018) of groundwater underlying the County is generally identified as being of *good* status although a number of smaller areas<sup>62</sup> of *poor status* are identified (as shown on Figure 4.11).

# 4.9.6 Aquifer Vulnerability and Productivity

The Geological Survey of 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. The vulnerability of aquifers underlying the County are mapped on Figure 4.12 and generally classified as being of:

- High, moderate and low vulnerability, in most of the County; and
- Extreme vulnerability and extreme (rock at or near surface or karst) in other local areas including the north-west and south-east.

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

<sup>62</sup> Areas underlying Durrow and extending to the south of the County and an area underlying an industrial facility (EPA reference: P0274-01) in the north of the County. mapped on Figure 4.13. Productivity is generally classified as being:

- Locally important aquifer bedrock which is moderately productive only in local zones across most of the County;
- Poor aquifer bedrock which is generally unproductive except for local zones - mainly in the west and south-east of the County;
- Poor aquifer bedrock which is generally unproductive – mainly in the south of the County;
- Locally important aquifer karstified in the north of the County;
- Locally important aquifer bedrock which is generally moderately productive - throughout the south of the County;
- Regionally important aquifer karstified (diffuse) throughout the east and south of the County;
- Regionally important aquifer fissured bedrock in the west and north-west of the County;
- Locally and regionally important gravel aquifer throughout the County.

## 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).

Entries to the RPAs within and adjacent to the County include:

- A number of rivers and streams are designated as Nutrient Sensitive Areas (as shown on Figure 4.14):
- Groundwater across the entire County is designated as Groundwater in Nutrient Sensitive Areas:
- Groundwater across the entire County is included on the RPA for Groundwater Drinking Water (see Figure 4.15); and
- A number of rivers in the County are included on the RPA for Drinking Water Rivers (see Figure 4 15)

Source Protection Areas are described in Section 4.8.3 and mapped on Figure 4.8.

### 4.9.8 Flooding

Certain areas across the County are at risk from groundwater, pluvial<sup>63</sup> and fluvial<sup>64</sup> flooding. There are various historic and predictive indicators of flood risk in the County, such as those along the Rivers Barrow, Nore and Timahoe and within and surrounding towns including Portlaoise, Mountmellick and Portarlington.

Historic and predictive flood mapping for the County is shown on Figure 4.17, Figure 4.16 and Figure 4.18.

Seven locations in the County were identified by the OPW in 2012 as requiring detailed assessment of flood risk (Areas for Further Assessment): Rathdowney; Portlaoise; Portarlington; Mountrath; Mountmellick; Clonaslee; and Ballyroan.

A Strategic Flood Risk Assessment (SFRA), as required by 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (DEHLG and OPW, 2009), has been undertaken alongside the preparation of the SEA and the preparation of the Plan. This assessment considers available and emerging information on flood risk indicators including the OPW's Flood Hazard and Risk Mapping.

## 4.9.9 Existing Problems

Subject to exemptions provided for by Article 4 of the WFD, based on available water data, 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 County.

<sup>&</sup>lt;sup>63</sup> Resulting from high intensity rainfall events where runoff volume exceeds capacity of surface water network.

<sup>&</sup>lt;sup>64</sup> Watercourse capacity is exceeded or the channel is blocked and excess water spills from the channel onto adjacent floodplains.

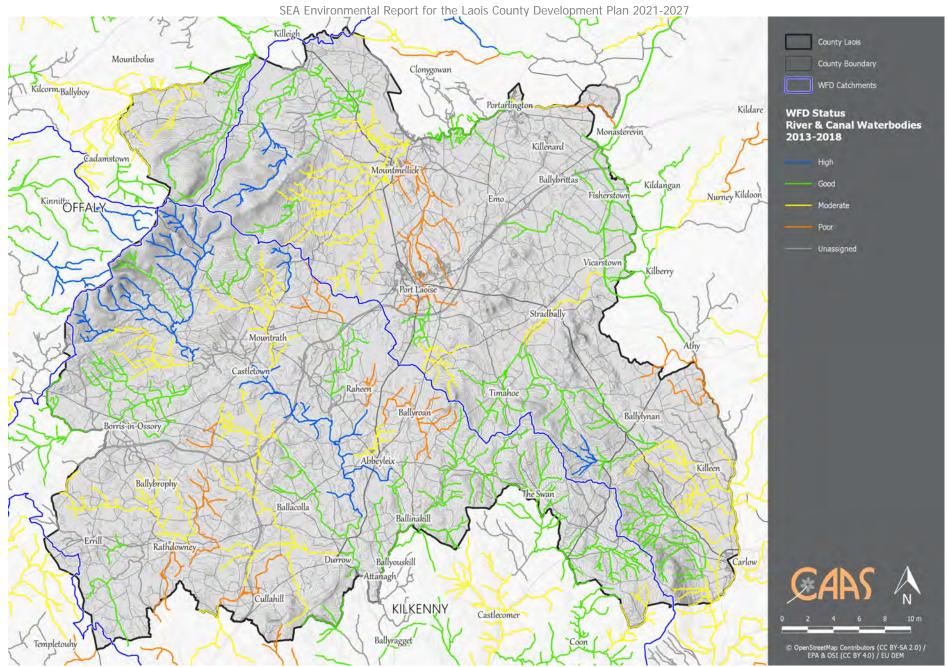


Figure 4.10 WFD Surface Water Status (2013-2018)

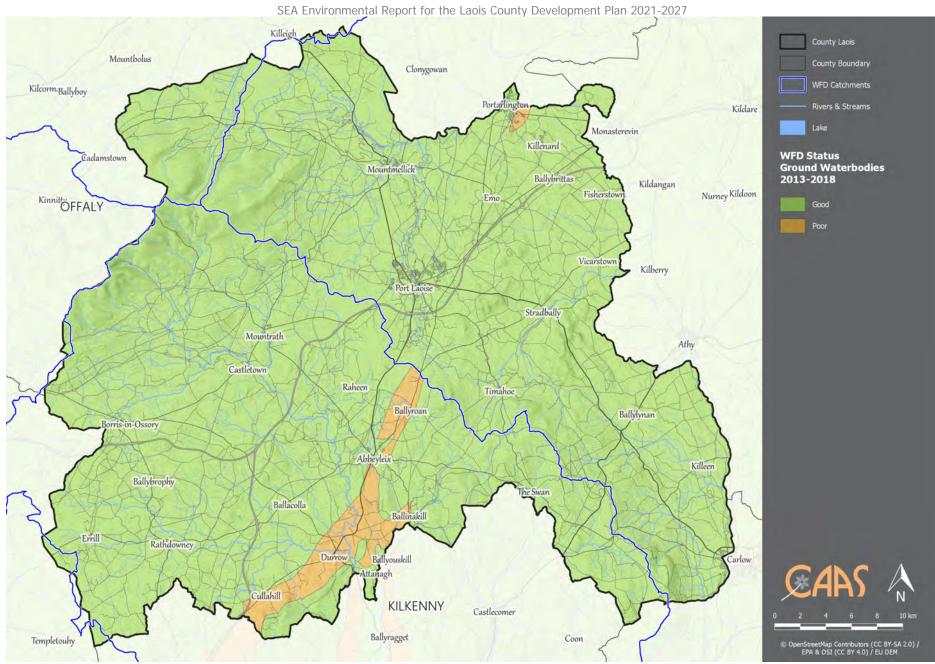


Figure 4.11 WFD Groundwater Status (2013-2018)

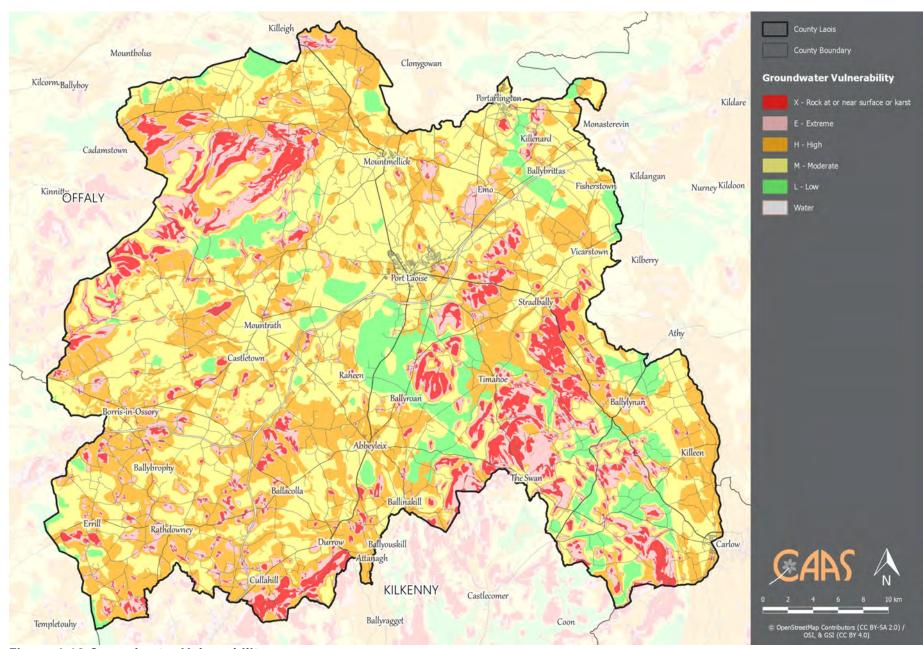
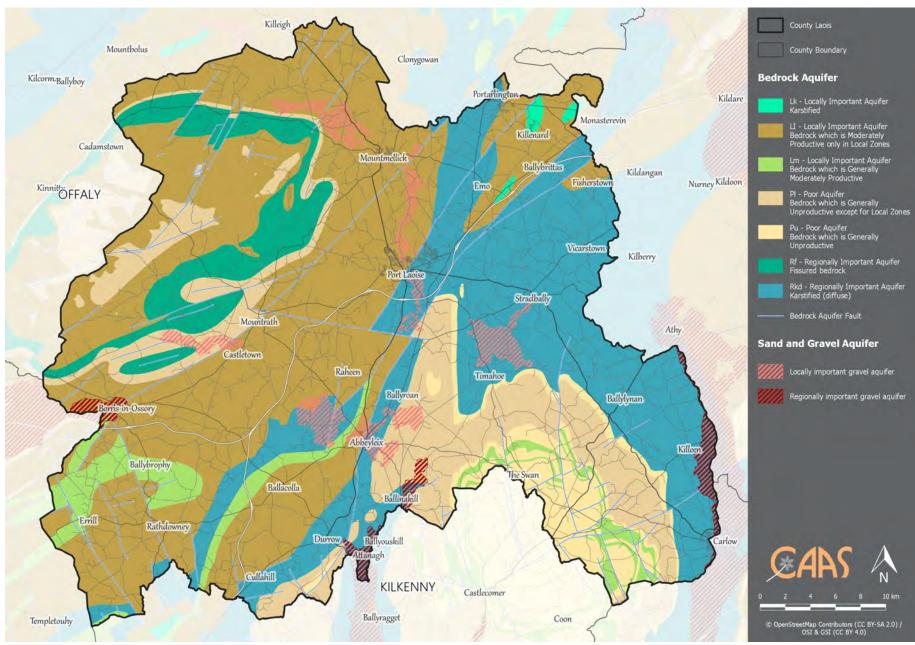
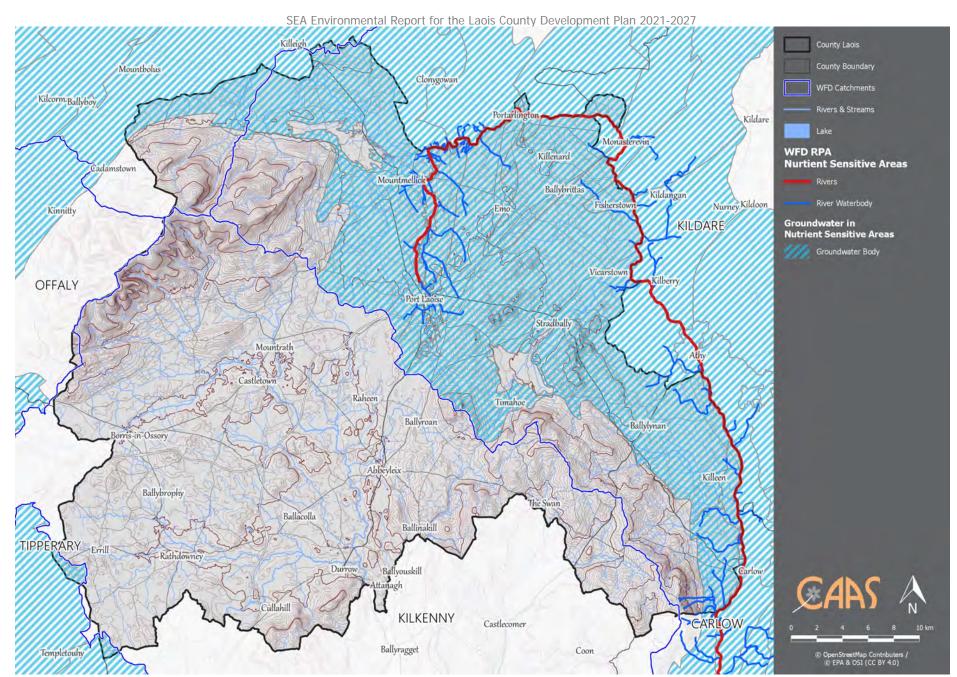


Figure 4.12 Groundwater Vulnerability



**Figure 4.13 Groundwater Productivity** 



**Figure 4.14 WFD Register of Protected Areas Nutrient Sensitive Areas** 

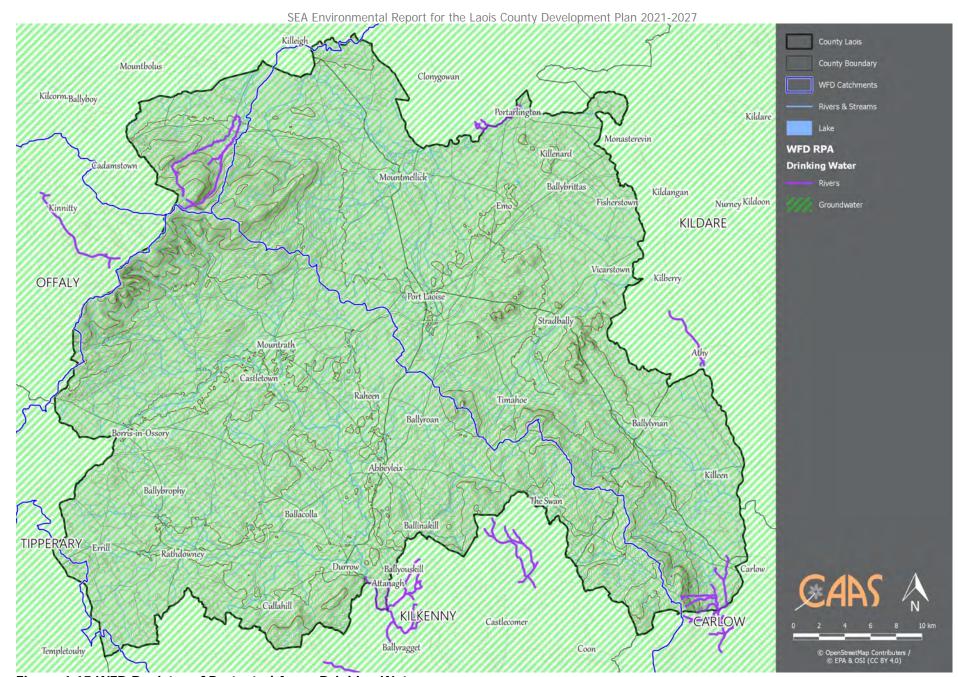


Figure 4.15 WFD Register of Protected Areas Drinking Water

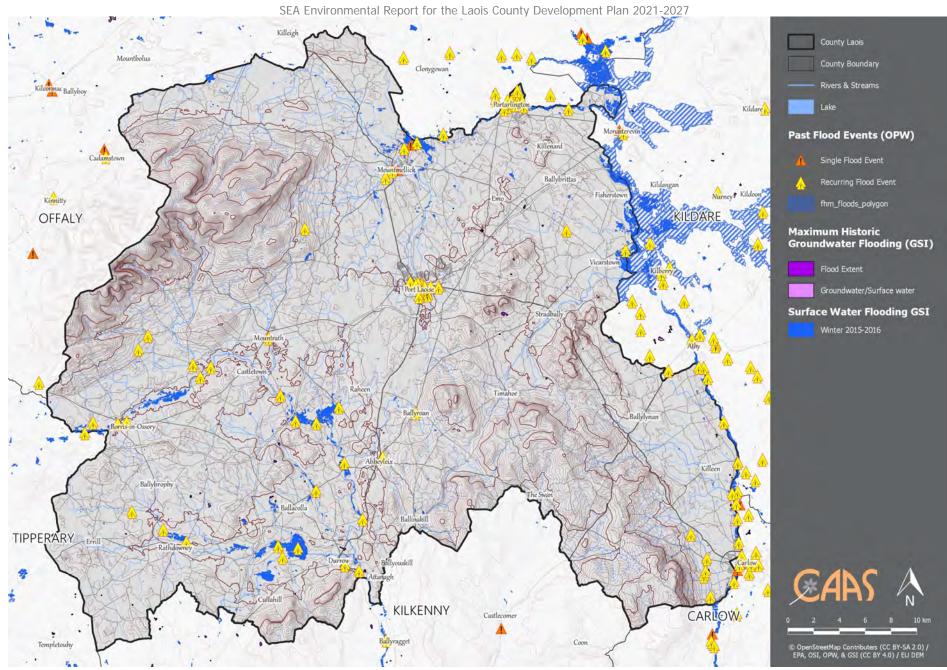


Figure 4.16 Historical Flood Risk Indicators

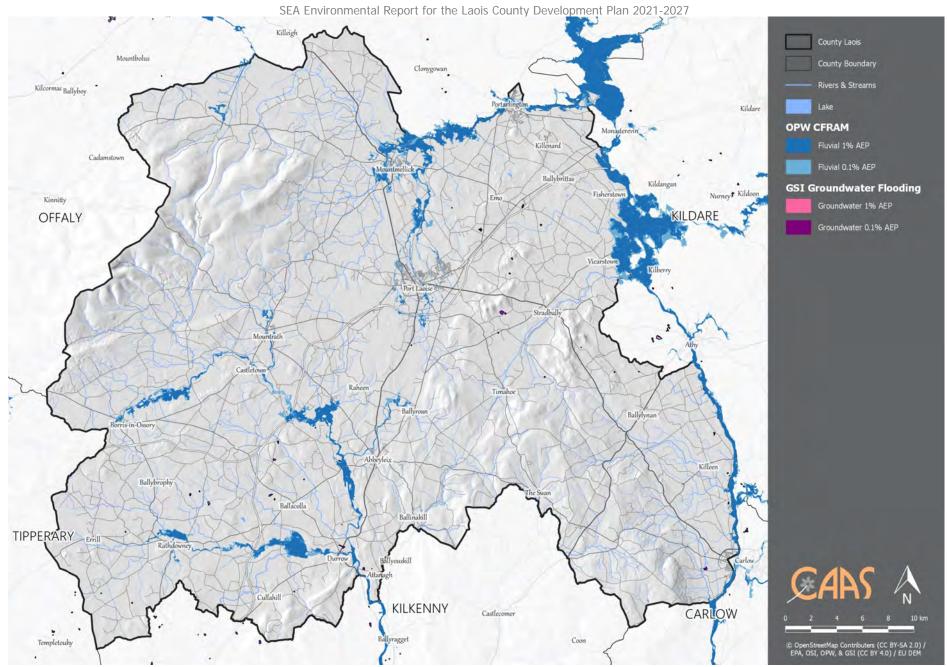


Figure 4.17 Predictive Flood Risk Mapping 2016

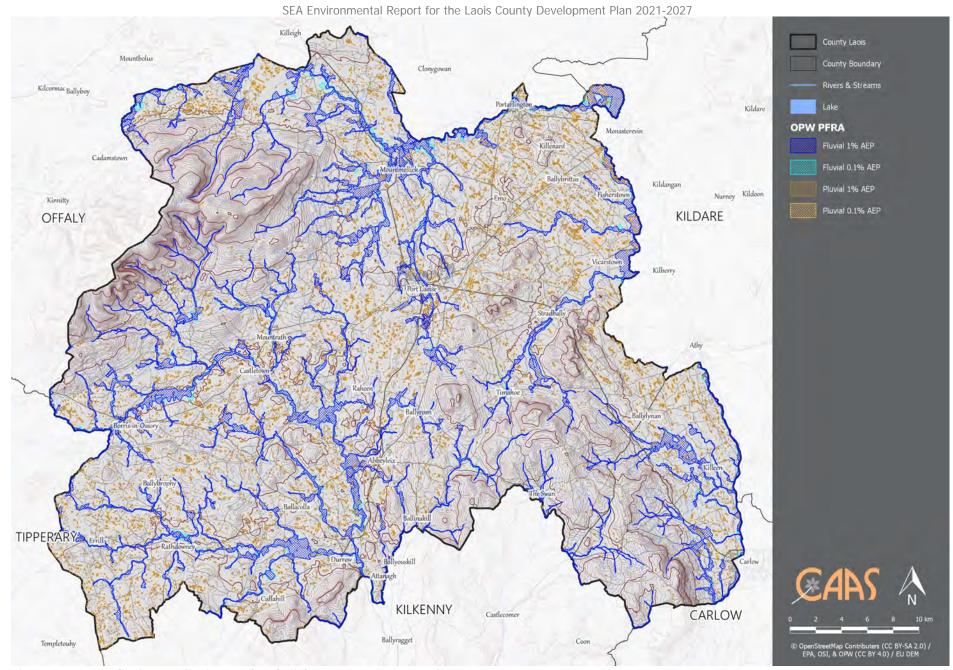


Figure 4.18 Predictive Preliminary Flood Risk Assessment Mapping 2011

# 4.10 Air and Climatic Factors

#### 4.10.1 Introduction

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 1990-2017 (EPA, 2018) details provisional estimates of greenhouse gas emissions for the period 1990-2017. For 2017, total national greenhouse gas emissions are estimated to be 60.75 million tonnes carbon dioxide equivalent (Mt CO<sub>2</sub>eq). This is 0.9% lower (0.53 Mt CO<sub>2</sub>eq) than emissions in 2016.

The EPA's 2019 publication Ireland's Greenhouse Gas Emission Projections 2018-2040 provides an assessment of Ireland's progress towards achieving its emission reduction targets set down under the EU Effort Sharing Decision (Decision No 406/2009/EC) for the years 2013-2020 and a longer-term assessment based on current projections. Ireland's 2020 target is to achieve a 20% reduction of non-Emission Trading Scheme (non-ETS) sector emissions (i.e. agriculture, transport, the built environment, waste and non-energy intensive industry) on 2005 levels with annual limits set for each year over the period 2013-2020.

The report on *Ireland's Final Greenhouse Gas Emissions* 1990-2017 (EPA, 2019) identifies that:

- For 2017, the total national GHG emissions are estimated to be 60.74 million tonnes carbon dioxide equivalent (Mt CO<sub>2</sub>eq), 0.9% lower than 2016.
- In the last 3 years, national total emissions have increased by 6.4%. In the same period, emissions in the ETS<sup>65</sup> sector have increased by 5.9%.

- Agriculture emissions increased by 2.9% in 2017 (driven by higher dairy cow numbers and increases in milk production).
- GHG emissions from the Transport sector decreased by 2.4% in 2017. This is the first year of decreased emissions after four successive years of increases in transport emissions.
- Agriculture and Transport accounted for 73.5% of total ESD emissions in 2017.
- Emissions in the Energy Industries sector show a decrease of 6.9% which is attributable to a 5.9% decrease in fossil fuel consumption and an increase of 21.1% and 1.6% in electricity generated from wind and hydro, respectively, in 2017. Renewables now account for 30.1% of electricity generated in 2017, an increase of 3.3% from 2016 figures. Ireland continued to be a net exporter of electricity in 2017. However, exported electricity saw a 4.7% reduction in 2017 to previous 2016 figures.
- Emissions from the Manufacturing Combustion<sup>66</sup> sector increased by 3.1% in 2017.
- The Industrial Processes sector emissions increased by 4.1%, mainly from increased cement production. Cement process emissions increased by 2.6% in 2017.
- GHG emissions from the Residential sector decreased by 5.0%. This can be attributed to a milder winter.
- Emissions from the Waste sector decreased by 2.5% in 2017

The EPA 2019 publication *Ireland's Greenhouse* Gas Emission Projections 2018-2040 provides an assessment of Ireland's total projected greenhouse gas emissions out to 2040 which includes an assessment of progress towards achieving its emission reduction targets out to 2020 and 2030 set under the EU Effort Sharing Decision and Effort Sharing Regulation (Regulation (EU) 2018/842). Ireland's 2020 target is to achieve a 20% reduction of non-Emission Trading Scheme (non-ETS) sector emissions (i.e. agriculture, transport, the built environment, waste and non-energy intensive industry) on 2005 levels with annual limits set for each year over the period 2013-2020. Ireland's 2030 target under the Effort Sharing Regulation is a 30% reduction of emissions compared to 2005 levels by 2030. There will be binding annual limits over the 2021-2030 period to meet that target. Key Insights identified as part of the report's package of documents are that:

 There is a long-term projected decrease in greenhouse gas emissions as a result of inclusion of new climate mitigation policies and measures that formed part of the 2018-2027 National Development Plan (updated in 2021). This is

 $<sup>^{65}</sup>$  The EU emissions trading system (EU ETS) was launched in 2005 as the world's first international company-level 'capand trade' system for reducing emissions of greenhouse gases cost-effectively. The cap makes sure that  $\text{CO}_2$  becomes a product and, thus,  $\text{CO}_2$  is valued at a price,

which is determined by the supply and demand at the (trading) market.

<sup>&</sup>lt;sup>66</sup> Manufacturing Combustion; includes combustion of fuels in Industry and Construction, both in ETS and non-ETS

- evident in the With Additional Measures scenario which assumes full implementation of the programmes, policies and measures included in the 2018 National Development Plan.
- Fossil fuels such as coal, peat and gas continue to be key contributors to emissions from the power generation sector. However, a significant reduction in emissions over the longer term is projected as a result of the expansion of renewables (e.g. wind), assumed to reach 41-54% by 2030, with a move away from coal and peat.
- A growth in emissions from the transport sector continues to be projected which is largely attributed to fuel consumption from diesel cars and diesel freight. A decrease in emissions over the longer term, most notably in the With Additional Measures scenario, is largely attributed to assumed accelerated deployment of 500,000 electric vehicles and the impact of greater biofuel uptake.
  - Agriculture emissions are projected to continue to grow steadily over the period which is mainly a result of an increase in animal numbers particularly for the dairy herd.
- The implementation of additional energy efficiency measures included in the 2018 National Development Plan will see a significant reduction in emissions in the residential, commercial/public services and manufacturing sectors over the projected period.

# 4.10.2 Climate Mitigation and Adaptation

The National Climate Action Plan 2021 is an all of Government plan to tackle climate change and bring about a step change in Ireland's climate ambition over the coming years. The plan sets out an ambitious course of action over the coming years to address the diverse and wide-ranging impacts climate disruption is having on Ireland's environment, society, economic and natural resources. The Climate Action Plan sets out clear 2030 targets for each sector with the ultimate objective of achieving a transition to a competitive, low-carbon, climate-resilient, and environmentally sustainable society and economy by 2050. The Action Plan deals with both mitigation and adaptation.

Climate mitigation describes 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 use of alternative fuels, including electricity, forms a significant part of government policy to reduce emissions, including from transport. Greater use of

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

The 2019 emission projections do not consider the impact of new policies and measures that are included in the Government Climate Plan. It is anticipated that future emission projections will include the additional impact of the Government Climate Plan.

The Climate Change Advisory Council's Annual Review 2019 identifies that the most recent projections demonstrate that, under different assumptions, Ireland will not meet its emissions reduction targets, even with the additional policies and measures included in the National Development Plan. The projections also show that progress on reducing emissions is sensitive to the future path of fuel prices. A significant and sustained rate of emissions reduction of approximately -2.5% per year is required to meet our objectives for 2050. However, it must be noted that additional measures within the recent Climate Action Plan are not included in the analysis to date.

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.

Adaptation The National 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.

The Laois County Council Climate Change Adaptation Strategy 2019-2024 seeks 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 the local authority.

## 4.10.3 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).

The EPA's (2020) Air Quality in Ireland 2019 identifies that:

- Air quality in Ireland is generally good however there are localised issues;
- Ireland was above World Health Organization air quality guideline value levels at 33 monitoring sites – mostly due to the burning of solid fuel in cities, towns and villages; and
- There was one exceedance of the EU annual average legal limit values in 2019 at one urban traffic station (in Dublin) due to pollution from transport.

Problem pollutants identified by the EPA include particulate matter from burning of solid fuel and nitrogen dioxide from transport emissions in urban areas. Indications that Ireland will exceed EU limit values for nitrogen dioxide in the near future.

With regard to solutions, the report identifies that:

- To tackle the problem of particulate matter, clean ways of heating homes, improving energy efficiency of homes and a wider Smoky Coal ban should be progressed; and
- To reduce the impact of nitrogen dioxide, transport options in the Government's Climate

Action Plan can be implemented and transport choices can be considered by individuals.

In order to comply 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. The current<sup>67</sup> air quality within the Plan area (Rural East and Small Towns Air Quality Index Regions) is identified by the EPA as being *good*.

#### 4.10.4 Noise

Laois County Council has prepared a Noise Action Plan 2019-2022 in accordance with the requirements of the Environmental Noise Regulations 2006. The purpose of the Noise Action Plan is to avoid, prevent and reduce, on a prioritised basis the harmful effects, including annoyance due to the long-term exposure to environmental noise.

## 4.10.5 Existing Problems

Legislative objectives governing air and climatic factors in County Laois were not identified as being conflicted with.

#### 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).

# 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; settlements; resources such as public open spaces, parks and recreational areas; public buildings and services; transport and utility infrastructure (electricity, gas, telecommunications, water supply, wastewater infrastructure etc.); forestry; and natural resources that are covered under other topics such as water and soil.

<sup>67 09/11/2020 (</sup>http://www.epa.ie/air/quality/)

#### 4.11.2 Land

The Plan seeks 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 Agriculture

Much of the land throughout the County is used for agriculture, as indicated by the agricultural related land cover types shown on Figure 4.4. Agriculture is a strong employer and a significant source of economic activity in the County. It contributes to exports and provides the raw materials for the food processing industry.

## 4.11.4 Forestry

Various extents and types of forestry exist across the County, as indicated on Figure 4.4. Forests and woodlands are a natural resource which can provide recreational opportunities in addition to their heritage and economic benefits. State ownership accounts for 63% of afforestation in County Laois.<sup>68</sup>

#### 4.11.5 Peatlands

There are significant peatland areas throughout the County, as indicated on Figure 4.4. These provide a valuable natural and archaeological resource. Peatlands are also important controllers of water levels in river catchments, providing a source of water in dry conditions and soaking up excess water during wetter periods; they actively capture and hold carbon and are an important natural resource in combatting climate change. Cutaway bogs have the potential to facilitate landuses such as employment, renewable energy generation, waste management, industrial, and tourism and recreation.

# 4.11.6 Renewable Energy Potential

Under EU Directive 2001/77/EC Renewable Energy, renewable energy sources are defined as renewable non-fossil energy sources such

as, but not limited to wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas, bio-gases and biochar (i.e. the thermal treatment of natural organic materials in an oxygen-limited environment). There is potential for renewable energy development in the County and the Plan seeks to facilitate such development in a sustainable manner.

# 4.11.7 Minerals and Aggregates

Minerals such as iron and copper and aggregates such as sand and gravel can occur throughout the country. Minerals and aggregates are essential to manufacturing and construction.

Minerals localities within Laois are shown on Figure 4.19. The GSI 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.

### 4.11.8 Transport

Transport infrastructure in the County has the potential to support reductions in energy demand from the transport sector, including through electrification of modes.

Due to its strategic location in the middle of the country, Laois and its main urban centres are well served by a hierarchy of roads including sections of motorways, national roads, regional roads and local roads. The M7, M8, N77, N78, N80 national primary routes traverse the County providing important linkages and networks within, into and out of the County. The M7 and the M8 have been identified as part of the Trans-European Transport Network (TEN-T). Furthermore, there are 17 Strategic Regional Roads in County Laois linking the main county towns to the national routes and M7 and M8 motorways.

Laois is a seen as a 'Gateway' to the Southern Region, making it fundamental in providing connections with other urban centres in these

<sup>&</sup>lt;sup>68</sup> Laois County Development Plan 2021-2027

regions. Both regional and local roads provide vital links between the towns and villages to retail, service and employment centres throughout the County and to adjoining counties.

Laois is centrally located along the Dublin-Cork and Dublin-Limerick rail line which traverses the County serving Portlaoise, Portarlington and Ballybrophy stations. The Galway/Westport line via Athlone branches off at Portarlington and at Ballybrophy there is a line to Limerick via Nenagh. There are extensive daily commuter services between Portlaoise and Portarlington and Dublin. Irish Rail and Bus Éireann operate on number of routes several times daily.

#### 4.11.9 Water Services

#### 4.11.9.1 Wastewater

The EPA's 2019 report 'Urban Wastewater Treatment in 2018' identified that:

- Wastewater treatment at 21 large urban areas did not meet European standards;
- Raw sewage is released into the environment from 36 urban areas;
- Wastewater from 57 areas is the sole threat to waters at risk of pollution;
- Wastewater contributed to poor quality bathing waters at three beaches in 2018;
- Discharges from 13 areas must improve to protect freshwater pearl mussels;
- Disinfection systems must be installed at two villages to safeguard shellfish; and
- Eight wastewater collection systems have been found non-compliant with European Union requirements.

Based on the EPA's assessment of monitoring information provided by Irish Water and the enforcement activities carried out by the EPA, this report identifies urban areas with the most important environmental issues with respect to wastewater infrastructure that must be addressed.

Currently, there are three Wastewater Treatment Plants (WWTPs) in County Laois servicing urban areas that are listed as Priority Areas, where improvements are required to resolve urgent environmental issues with respect to wastewater treatment: Ballyroan; Castletown; and Portarlington. Portarlington is identified as an area where wastewater discharges are the sole significant pressure on water bodies (Barrow) at risk of pollution. Ballyroan and Castletown are identified as areas where wastewater treatment must improve to protect freshwater pearl mussels, or where the

EPA awaits confirmation that recent improvement works were successful.

From January 2014, Irish Water became responsible for all public water services, involving the supply of drinking water and the collection, treatment and disposal wastewater. Irish Water is also responsible for the treatment and disposal of the sludge that is generated from both its water and wastewater treatment plants. The Council is an agent of Irish Water for operations and remains the designated Water Authority for the assessment and approval of on-site wastewater treatment systems and is responsible for surface water drainage in the County. Laois County Council retains its role in facilitating the provision of adequate water services, in conjunction with Irish Water, at a local level, through Service Level Agreements (SLAs). The Council remains the designated Water Authority for the assessment and approval of individual domestic on-site wastewater treatment systems in the County.

The provision of well-maintained quality wastewater treatment infrastructure is essential to facilitate sustainable development of the County in line with the Settlement and Core Strategy while also protecting the environment and public health. Irish Water is now responsible for the collection, treatment and disposal of wastewater where public wastewater facilities exist in towns and villages. In unserviced areas and outside the main towns and villages, the main method of sewage disposal is by means of individual septic tanks and proprietary wastewater treatment systems.

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

There are currently 14 licenced wastewater treatment plants in Laois. Monitoring of the treated effluent from the plants is carried out as required in accordance with the Urban Wastewater Treatment Directive and conditions of the Discharge Licences and Certificates of Authorisation issued by the Environmental Protection Agency.

Irish Water has provided the Wastewater Treatment Capacity Register (see Table 4.2) to assist the Council in the preparation of the new County Development Plan by indicating where there may be wastewater treatment capacity available accommodate to growth population ("headroom") in terms of equivalent<sup>69</sup> (PE) in each settlement serviced by a public wastewater treatment plant. Spare treatment capacity is available now in most of these settlements, except for Ballyroan.

There are a number of constraints identified in the Portlaoise sewer network. A Drainage Area Plan (DAP) is being prepared for the town. The study is modelling the existing sewer network and future scenarios. A range of solutions will be developed to overcome the current constraints.<sup>70</sup>

Table 4.3 provides information on wastewater treatment plant performance sourced from the EPA's 2019 Annual Environmental Reports (AERs). Where 2019 AERs were not available, 2018 AERs were used. All WWTPs were compliant with the Emission Limit Values (ELVs) set in the Discharge Licences except for:

- Ballinakill WWTP (D0384-01);
- Clonaslee WWTP (D0386-01); and
- Ballyroan WWTP (D0385-01).

Irish Water is responsible for the treatment and disposal of the sludge that is generated from both its water and wastewater treatment plants. Irish Water has prepared a National Wastewater Sludge Management Plan 2016-2021 that outlines Irish Water's strategy to ensure a nationwide standardised approach for managing wastewater sludge over a 25-year period. A separate plan will be prepared in relation to sludge produced at drinking water plants.

#### 4.11.9.2 Water Supply

Irish Water is responsible for providing and maintaining adequate public water supply infrastructure throughout the County. Public drinking water in County Laois is supplied through of 28 Public Water Supply (PWS) Schemes supplying drinking water to 14 towns,

<sup>69</sup> As identified in Irish Water's Water Services Strategic Plan, wastewater treatment plants are described in terms of their designed treatment capacity, which is generally expressed as population equivalent (PE). This is a measurement of total organic biodegradable load, including industrial, institutional, commercial and domestic organic load, on a wastewater treatment plant, converted to the seven villages, a number of small rural settlements and rural areas. 98.5% of all Laois water comes from groundwater.<sup>71</sup>

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 Regulations mentioned above. Abbeyleix 1 Public Water Supply is listed on the most recent EPA RAL (Q3 of 2020) due to inadequate treatment for cryptosporidium. This Water Supply Scheme has a supply volume of 866 m<sup>3</sup>/day, serving a population of 1,836 people. The proposed plan of action to remedy this issue is an installation of pressure filtration and UV disinfection by September 2021.

Currently, Irish Water is developing the National Water Resource Plan outlining how to move to a sustainable, secure and reliable public drinking water supply over a 25-year period while safeguarding the environment. It will outline how Irish Water intends to maintain a balance between supply from water sources around the country and demand for drinking water over the short, medium and long term. This will facilitate future planning and ensure provision of sufficient, safe, clean drinking water to facilitate the social and economic growth of the County.

It is the policy of the Council to work in conjunction with Irish Water to protect existing water infrastructure, to maximise the potential of existing capacity and to facilitate the timely delivery of new wastewater services infrastructure to facilitate future growth.

#### 4.11.9.3 Surface Water Drainage

Sustainable urban Drainage systems (SuDS) can minimise the quantity and increase the quality of surface water runoff as well as mitigating adverse impacts of climate change. SuDS can also provide amenity and biodiversity benefits. The Council seeks to ensure the

equivalent number of PEs. One person is considered to generate 60g of five-day Biochemical Oxygen Demand (BOD) per day. 1 PE is defined as being equivalent to 60g of BOD per day.

<sup>&</sup>lt;sup>70</sup> Irish Water (2020)

<sup>&</sup>lt;sup>71</sup> Laois CDP 2021-2027

sustainable management of surface water discharges in urban areas through the use of SuDS.

4.11.10 Waste Management

The Eastern and Midland Waste Region comprises 12 local authority areas of: Dublin City; Fingal; Dún Laoghaire-Rathdown; Kildare; Laois; Longford, Louth, Offaly, Meath, Wicklow, Westmeath and South Dublin.

The Eastern-Midlands Waste Management Plan 2015-2021 provides the framework for solid waste management in the region and sets out a range of policies and actions to meet specified mandatory and performance-based targets. It is underpinned by National and European waste legislation and the work carried out will ensure the continued management of waste in a safe and sustainable manner. The Plan includes eight Strategic Objectives and three overarching targets:

- 1% reduction per annum in the quality of household waste generated per capita;
- Reduce to 0% the direct disposal of unprocessed municipal waste to landfill (from 2016 onwards) in favour of higher value pre-treatment processes and indigenous recovery practices; and
- Recycling rate of 50% of managed municipal waste by 2020.

The Eastern-Midlands Waste Management Plan states that the future role of local authorities in waste management will be focused on education, prevention, and resource efficiency activities as well as regulating householders, businesses and waste operators and enforcing waste legislation. Waste infrastructure provided by local authorities will mainly include bring banks and civic amenities.

# 4.11.11 Existing Problems

There are a number of challenges with respect to the provision of water services infrastructure that are described under Section 4.11 above.

The Water Services Section of Laois County Council will co-operate with Irish Water in providing and maintaining adequate public water supply and wastewater collection and treatment infrastructure throughout the county for the period of the plan and beyond. In conjunction with Irish Water, the Water Services Section of Laois County Council will endeavour to ensure the continued investment in and delivery of improvements to water infrastructure over the Plan period through the

implementation of the Capital Investment Plan. 2020-2024.

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

Table 4.2 Wastewater Treatment Plant Capacity in County Laois (Irish Water 29/04/2020)

Settlement / WWTW	Census Population (2016)	Plant Design Capacity (PE*)	Capacity Remaining (Estimate)		
Portlaoise	22,050	39,000	Good Capacity Available		
Portarlington	8,368	13,000	Good Capacity Available		
Mountmellick	4,777	7,000	Good Capacity Available		
Mountrath	1,774	4,500	Good Capacity Available		
Abbeyleix	1,770	4,000	Good Capacity Available		
Stradbally	1,350	3,500	Good Capacity Available		
Rathdowney	1,271	3,500	Good Capacity Available		
Ballylinan	1,101	2,000	Good Capacity Available		
Durrow	835	3,000	Good Capacity Available		
Clonaslee	566	1,200	Reasonable Capacity		
Ballyroan	563	600	Constrained		
Borris-in-Ossory	508	1,626	Good Capacity Available		
Ballinakill	445	700	Modest Capacity		
Castletown	436	500	Modest Capacity		

**Table 4.3 Wastewater Treatment Plant Performance** 

Plant name	AER	Treatment	Overall	Parameter	Cause of Exceedances	Organic Capacities (PE)		
and Reference	Year	Provided	Compliance (Pass/Fail)	Failed	and Significance of Results (Water Quality)	As Constructed	Collected Load (peak week)	Remaining
Portlaoise D0001-01	2019	Tertiary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence.	39000	30633	8367
Mountmellick D0152-01	2019	Secondary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence.	7000	5623	1377
Mountrath D0153-01	2019	Tertiary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence	4500	2332	2168
Abbeyleix D0156-01	2019	Tertiary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence.	4000	2355	1645
Rathdowney D0288-01	2019	Tertiary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence.	3500	1543	1957
Durrow D0289-01	2019	Tertiary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence	3000	929	2071
Borris-in- Ossory D0290-01	2019	Secondary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence.	1626	534	1092
Ballylynan D0291-01	2019	Tertiary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence.	2000	1298	702
Stradbally D0292-01	2019	Tertiary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence.	3500	1576	1924
Ballinakill D0384-01	2019	Secondary	Fail	Ammonia- Total (as N) mg/l	Cause: Plant or equipment breakdown at WWTP  The WWTP discharge was not compliant with the ELV's set in the wastewater discharge licence.  The ambient monitoring results does not meet the required EQS. The EQS relates to the Oxygenation and Nutrient Conditions set out in the Surface Water Regulations 2009.  Based on ambient monitoring results a deterioration in BOD & Ortho-P concentrations downstream of the effluent discharge is noted.  A deterioration in water quality has been identified, however it is not known if it or is not caused by the WWTP.  Other causes of deterioration in water quality in the area are unknown.	700	471	229

Plant name	AER	Treatment	Overall	Parameter	Cause of Exceedances	Organ	ic Capacities	(PE)
and Reference	Year	Provided	Compliance (Pass/Fail)	Failed	and Significance of Results (Water Quality)	As Constructed	Collected Load (peak week)	Remaining
					The discharge from the wastewater treatment plant does not have an observable negative impact on the Water Framework Directive status.			
Clonaslee D0386-01	2019	Secondary	Fail	ortho- Phosphate (as P) - unspecified mg/I	Cause: WWTP biological sludge issues.  The WWTP discharge was not compliant with the ELV's set in the wastewater discharge licence.  The ambient monitoring results meet the required EQS. The EQS relates to the Oxygenation and Nutrient Conditions set out in the Surface Water Regulations 2009.  Based on ambient monitoring results a deterioration in Ammonia & BOD concentrations downstream of the effluent discharge is noted.  A deterioration in water quality has been identified, however it is not known if it or is not caused by the WWTP.  Other causes of deterioration in water quality in the area are unknown.  The discharge from the wastewater treatment plant does not have an observable negative impact on the Water Framework Directive status.	1200	611	589
Castletown D0387-01	2019	Secondary	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence.	500	431	69
Ballyroan D0385-01	2018	Secondary	Fail	Ortho- Phosphate (as P) - unspecified mg/l COD-Cr mg/l BOD, 5 days with Inhibition (Carbonaceous BOD) mg/l Ammonia- Total (as N) mg/l Suspended Solids mg/l	Cause: WWTP upgrade required to meet ELVs.  The WWTP discharge was not compliant with the ELV's set in the wastewater discharge licence.  The ambient monitoring results did not meet the required EQS for Ammonia. Where the ambient monitoring results do not meet the EQS this relates to the Oxygenation and Nutrient Conditions set out in the Surface Water Regulations 2009.  Based on the effluent compliance results the wastewater treatment plant discharge is likely to be having a negative impact on the d/s water quality in terms of Ammonia.  It is noted that consistent achievement with the ELVs would benefit the quality of the receiving water.  The discharge from the WWTP has no observable negative impact on the Water Framework Directive status.	600	662	0
Portarlington D0158-01	2018	Preliminary Secondary Nutrient Removal	Pass	N/A	The WWTP is compliant with the Emission Limit Values set in the Wastewater Discharge Licence	13000	10603	2397

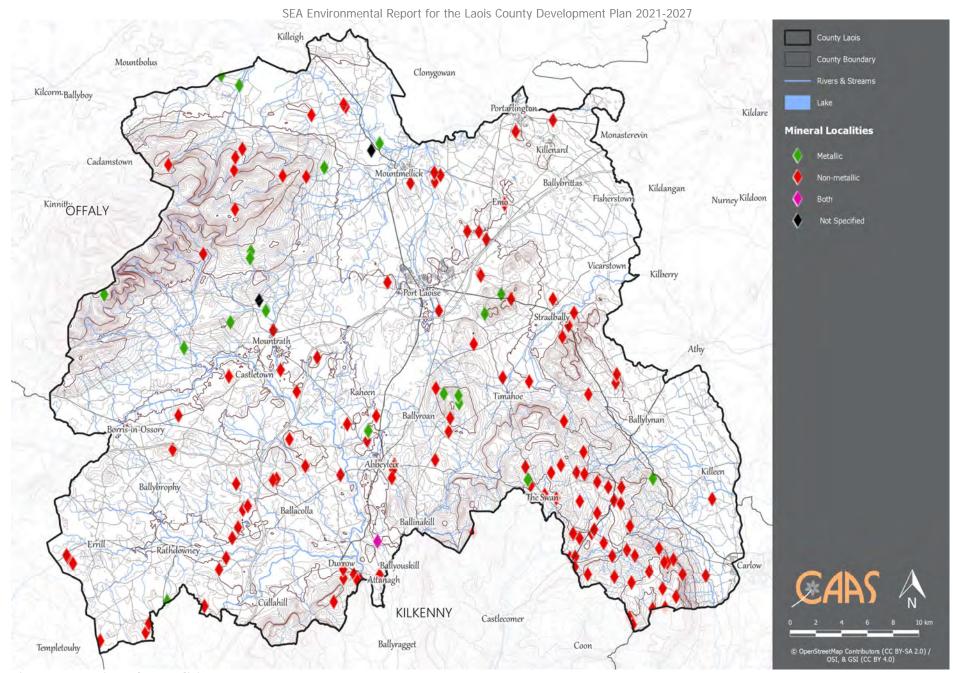


Figure 4.19 Minerals Localities

## 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, 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 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.

A Sites and Monuments Record (SMR)<sup>72</sup> is a manual containing a numbered list of all certain and possible monuments accompanied. An Urban Archaeology Survey was completed in 1995 and contained reports on historic towns dating to before 1700 A.D. with a view to delineating zones of archaeological potential (SMR Zones of Notification). The SMR formed the basis for issuing the Record of Monuments and Places (RMP) - the statutory list of recorded monuments established under Section 12 of the National Monuments (Amendment) Act 1994.

Figure 4.20 shows the spatial distribution of recorded monuments and associated SMR Zones of Notification in the County. There are hundreds of Recorded Monuments within the Plan area. Clusters of monuments are concentrated within and adjacent to the existing built-up footprint of the County and in the rural areas. Enclosures, fulacht fias, castles, churches and graveyards are amongst the most common recorded monuments in the Plan area.

There are eight Monuments in State Care (all in State Ownership)<sup>73</sup> in County Laois, including:

- Aghnahilly Ringfort;
- Coorlaghan Ringfort;
- Dunamaise Castle;

The RMP was issued for each county between 1995 and 1998 in a similar format to the existing SMR. However, the RMP differs from the earlier lists in that, as defined in the Act, only monuments with known locations or places where there are believed to be monuments are included. The large archive and supporting database are managed by the National Monuments Service and the records are continually

updated and supplemented as additional monuments are

discovered. (<a href="https://data.gov.ie/dataset/national-monuments-service-archaeological-survey-of-ireland">https://data.gov.ie/dataset/national-monuments-service-archaeological-survey-of-ireland</a>).

<sup>&</sup>lt;sup>73</sup> This list of National Monuments in State care includes those which are in the ownership and guardianship of the Minister for the Environment, Heritage and Local Government.

- Errill Church and Cross;
- Fossey Chrurch;
- Killeshin Church;
- Sleaty Church and Crosses; and
- Timahoe Church and Round tower.

Further to this, there are five Monuments Protected under Preservation Order in County Laois, including:

- Clogrennan;
- Lamberton Fort;
- Ballyroan Motte;
- Ballinclogh Motte and Bailey; and
- Garryduff Ringfort.

There are many important sites of significant archaeological interest, such as: Abbey at Aghaboe; Viking Longboat; the Rock of Dunamaise (associated with the remains of an early Christian settlement, that was pillaged in 842 by the Vikings); Dunamaise Castle (dating back to the 13<sup>th</sup> century); and Fort Protector in Portlaoise (a foundation of the town of Portlaoise, currently a part of the new Heritage Quarter for the town).

Historic Towns have been identified by the Department of Environment as Zones of Archaeological Potential, for general protection. Within County Laois these historic towns include:

- Ballinakill;
- Castletown;
- Dunamase;
- Killaban;Portarlington; and
- Portlaoise.

County Laois has also significant industrial heritage with many industrial archaeological sites documented by the National Monuments Service, including the canal, mills, bridges and railways.

The Underwater Archaeology Unit was established within the National Monuments Service to manage and protect Ireland's underwater cultural heritage, including the quantification of the underwater resource and assessing development impacts in order to manage and protect this aspect of Ireland's heritage. The Shipwreck Inventory is principally a desktop survey with information gathered from a broad range of cartographic,

<sup>74</sup> 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 archaeological and historical sources, both documentary and pictorial. Wrecks over 100 years old and archaeological objects found underwater are protected under the National Monuments (Amendment) Acts 1987 and 1994. Significant wrecks less than 100 years old can be designated by Underwater Heritage Order on account of their historical, archaeological or artistic importance. Such Orders can also be used to designate areas of seabed or land covered by water to more clearly define and protect wreck sites and archaeological objects. Under the legislation all diving on known protected wreck sites or with the intention of searching for underwater cultural heritage is subject to licensing requirements.

Rivers, canals and lakes within the County 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 curtilage<sup>74</sup> of the structure;

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

- 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).

Similar to the general spatial spread of archaeological heritage, clusters οf architectural heritage are indicated within the County's settlements as shown on Figure 4.21. There are currently c. 900 entries to the Record of Protected Structures within the County, which include many notable buildings in the County such as: country houses (Ballyfin House, Stradbally Hall and Emo Court); and buildings public (Oughaval Church, Mountmellick Courthouse and **Abbeyleix** Railway Station). Other structures architectural significance include Donaghmore Workhouse Dining Hall, Durrow Courthouse and Clonaslee Heritage Centre.

There are many traditional buildings in the Plan area with architectural heritage value including vernacular buildings such as farms, mills and gates. A survey of thatched buildings was recently carried out that identified the remaining thatched dwellings within the County.<sup>75</sup>

In addition to Protected Structures, the Planning and Development Act, 2000 provides the legislative basis for the protection of Architectural Conservation Areas (ACAs). An ACA is a place, area or group of structures or townscape that is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or value, or contributes to the appreciation of protected structures, whose character it is an objective to preserve in a development plan. The ACA designation requires that planning permission must be obtained before significant works can be carried out to the exterior of a structure in the ACA that might alter the character of the structure or the ACA. There are seven ACAs designated within the Plan area<sup>76</sup> as shown on Figure 4.21.

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 Culture, Heritage and the Gaeltacht 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 4.21 shows the two entries to the NIAH in County Laois – Emo Court and Heywood Gardens in Ballinakill.

### 4.12.3 Existing Problems

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

them just as if they were still within the curtilage of the Protected Structure.

<sup>&</sup>lt;sup>75</sup> Laois County Development Plan 2021-2027

Abbeyleix ACA; Ballinakill ACA; Castletown ACA; Clonaslee ACA; Durrow ACA; Portlaoise ACA; and Timahoe ACA.

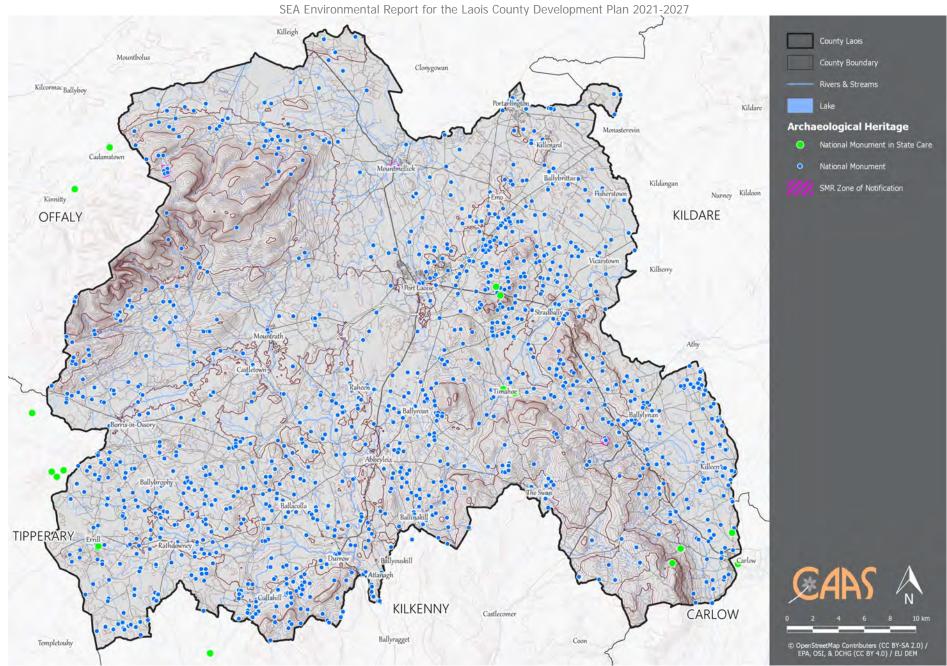


Figure 4.20 Archaeological Heritage

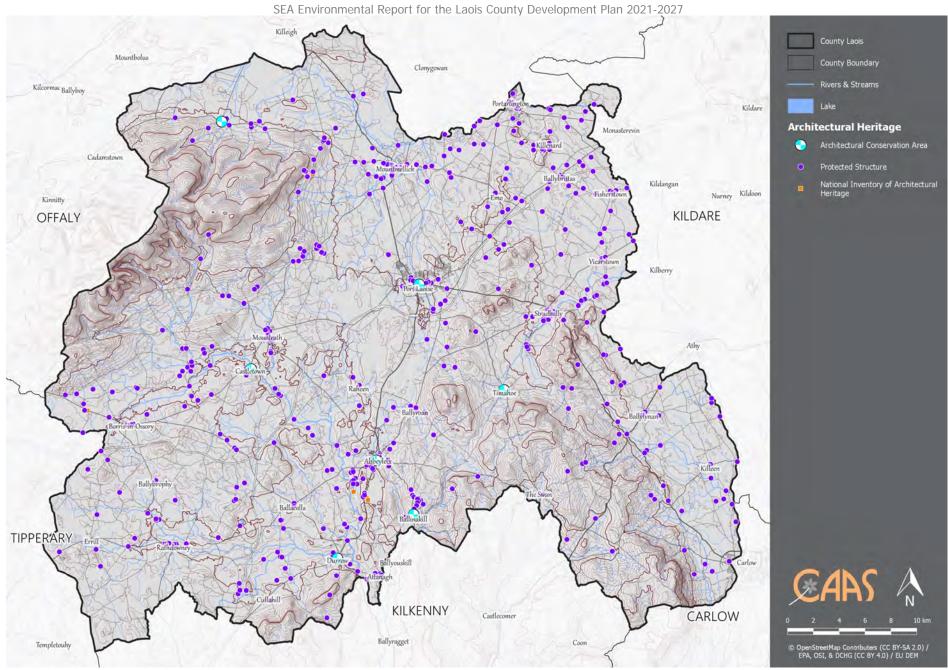


Figure 4.21 Architectural Heritage

## 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.

Laois has a diverse landscape, including large central lowland areas defined by the Rivers Barrow, Nore and Erkina and their various tributaries flowing in a northwest-southeast trajectory through the Plan area. The upland areas and hills are found in the north-western and southern parts of the County and include the Slieve Bloom Mountains (containing the highest summits in the County); Cullahill Mountain: Cullenagh Mountain: Mountain; and Killeshin Hills. There are also significant peatland areas on the south-western and eastern edge of the County, in the central around Portlaoise, Mountrath, Mountmellick and Abbeyleix and further north in the foothills of the Slieve Blooms.

# 4.13.2 Landscape Character Areas and Landscape Sensitivity

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. The County Laois Landscape Character Assessment has identified the following seven Landscape Character Areas (also shown on Figure 4.22):

- Hills and Upland Areas;
- Lowland Agricultural Areas;
- River Corridors and Lakes;

- Mountain Areas;
- Peatland Areas:
- Urban Fringe Areas; and
- Rolling Hill Areas.

Landscape Character Areas in County Laois are assigned with level of sensitivity from low and medium to high. The high sensitivity areas are most sensitive to development: developments that are likely to create a significant visual impact will best be absorbed in areas where the landscape is most robust, i.e. where the landscape has the capacity to absorb development without significantly changing its character. Landscape Character Areas in County Laois which are most sensitive to development include the Peatlands, River Corridors and Lakes and Mountain Areas.

# 4.13.3 Scenic Routes and Protected Views

There are a number of valuable views and prospects designated in County Laois that offer attractive cross-sectional views and overall impressions of differing landscapes in the County. These Protected Views and Prospects are considered when assessing planning applications and are mapped on Figure 4.22.

# 4.13.4 Landscape Designations in Adjacent Counties

Offaly borders County Laois to the north-west. Landscape Character Areas within County Offaly include: Rural and Agricultural Areas; Cutaway Bog; The River Shannon and Callows; The Grand Canal Corridor; Wetlands; Slieve Bloom Upland Area; Croghan Hill and its Environs; Bogland Areas; The Esker Landscape; and Archaeological and Historical Landscapes. These areas are also the most sensitive to development within the County. Landscape designations within County Offaly also include Areas of High Amenity, Protected View Points and Amenity Value Roads.

County Kildare is located adjacent to the east of County Laois. There are 16 Landscape Character Areas identified within County Kildare. The River Barrow Landscape Character Area adjacent to County Laois is of 'Special Sensitivity' and has reduced capacity to accommodate change. Other landscape designations within County Kildare include Scenic Routes; Hilltop Views and Scenic Viewpoints.

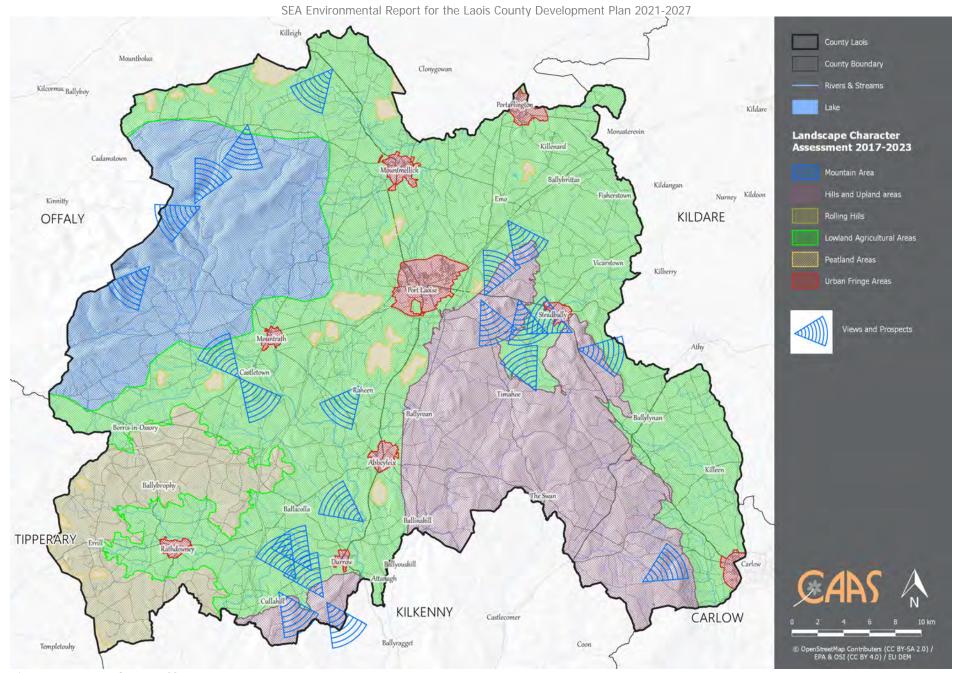
County Carlow is located to the south-east of County Laois. The Landscape Character Assessment for Carlow identifies four Landscape Character Areas: Blackstairs and Mount Leinster Uplands; River Slaney – East Rolling Farmland; and the two Landscape Character Areas adjacent to the border of County Laois - Central Lowlands and Killeshin Hills. The Landscape Character Areas are divided into Landscape Character Types out of which Uplands, Farmed Ridges, Farmed Lowlands, Broad River Valley and Build Up Areas also occur adjacent to County Laois. Other landscape designations within County Carlow include Views, Prospects and Scenic Routes.

The south of County Laois borders County Kilkenny. There are four Landscape Character Types designated in County Kilkenny: Upland Areas; Lowland Areas; River Valleys; and Transitional Areas. These Areas include a number of sub-areas. Sub-areas adjacent to County Laois include: Slieveardagh Hills; Kilkenny Northern Basin; and Castlecomer Plateau. Other landscape designations within County Kilkenny include Protected Views and Highly Scenic.

County Laois also shares a border with Northern Tipperary to the south-west. This part of Tipperary is within the Generalised Landscape Character Area of the Plains. The Plains contain lowland pasture, arable, peatland and wet mixed farmland landscape types. Other landscape designations include a number of Scenic Views and Prospects for Protection.

# 4.13.5 Existing Environmental Problems

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



**Figure 4.22 Landscape Character Areas** 

## 4.14 Overlay of Environmental Sensitivity Mapping

In order to identify where most sensitivities within the County occur, a number of the environmental sensitivities described above were weighted and mapped overlapping each other.

Fiaure 4.23 provides Overlav an Environmental Sensitivities in the County. Environmental sensitivities are indicated by colours which range from higher to lower sensitivity. The map was prepared using Geographical Information System (GIS) software that allowed for a weighting system to be applied with differentiation in certain layers as follows:

- European Sites SACs and SPAs (10 points);
- Other Ecological designations NHAs and pNHAs (5 points);
- Sensitive Landcover Categories (10 points);
- Margaritifera sensitive areas Catchments of SAC populations listed in S.I. 296 of 2009 and Catchments of other extant populations (5 points):
- WFD Status of Surface moderate and unassigned ecological status (5 points);
- WFD Status of Surface water poor ecological status (10 points);
- Groundwater vulnerability (aquifers which are extremely vulnerable - 10 points; and highly vulnerable - 5 points);
- Source Protection Areas (Inner Protection Area and Group Scheme Areas 10 points, Outer Protection Areas 5 points);
- WFD RPA Designated Salmonid River Waters (10 points) and associated Rivers (5 points);
- WFD RPA Nutrient Sensitive Rivers (10 points) and Rivers in Nutrient Sensitive Areas (5 points);
- WFD RPA Rivers for Drinking Water (10 points);
- County Geological Sites (10 points);
- GSI Landslide Susceptibility (High or High Inferred – 10 points; Moderately High or Moderately High Inferred – 5 points);
- Preliminary Flood Risk Assessment Fluvial Flood Zone A (10 points) and Fluvial Flood Zone B (5 points);
- Cultural Heritage including Architectural Conservation Areas, entries to the Record of Protected Structures, entries to the Record of Monuments and Places, National Monuments in State Care and entire to the National Inventory of Architectural Heritage (10 points); and
- "Mountain Areas", "Peatlands" and "River Corridors" (10 points) and "Rolling Hills and Upland Areas" Landscape Character Areas (5 points).

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

The overlay mapping shows that environmental sensitivities are not evenly distributed throughout the County. Most of the County is identified as having low to moderate levels of sensitivity.

The most sensitive areas in the County include:

- Those areas in the north east of the County, concentrated around the Slieve Bloom Mountain Area Landscape Character Area. This is due to a variety of overlapping and related factors including soil type (peat), landscape value and ecological designations.
- Those areas along the banks of the County's various rivers - including the Rivers Nore and Barrow - due to water status, ecological, flood and visual sensitivities.
- Those areas in the south of the County within catchments designated for freshwater pearl mussel and within Hills and Uplands Landscape Character Area.

The EPA-funded Environmental Sensitivity Mapping Web Tool could assist in lower tier consideration of plans and projects.

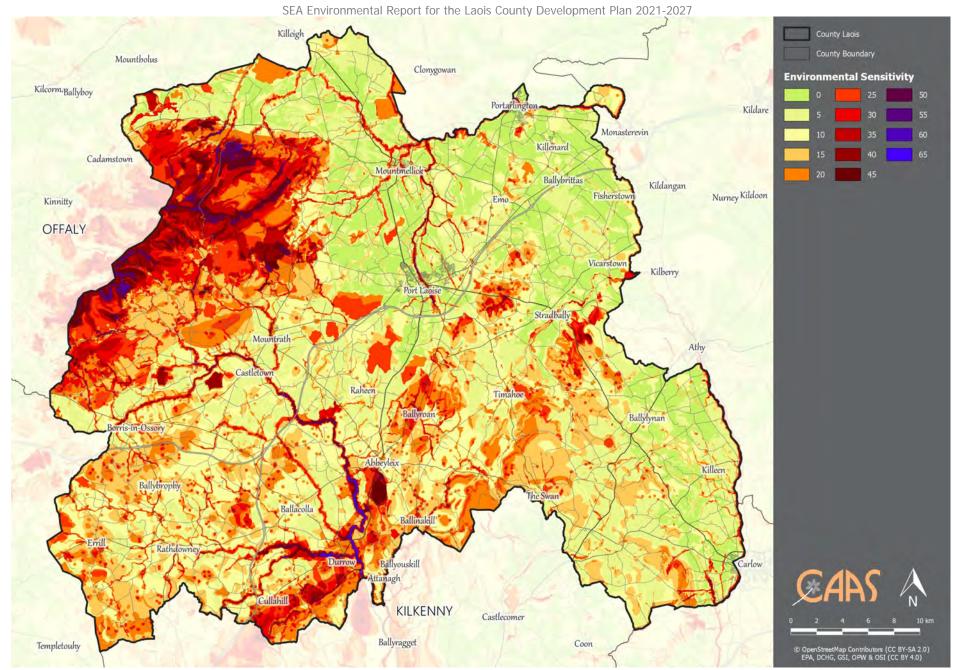


Figure 4.23 Overlay of Environmental Sensitivities in County Laois

## 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 Development Plan in the land use planning hierarchy beneath the Eastern and Midland RSES, the measures identified in that RSES SEA 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	SEO	Guiding	Strategic Environmental Objectives	Indicators	Targets
Component	Code	Principle	-	0 1111 65	
Biodiversity, Flora and Fauna	BFF	No net contribution to biodiversity losses or deterioration	<ul> <li>To preserve, protect, maintain and, where appropriate, enhance the terrestrial, aquatic and soil biodiversity, particularly EU designated sites and protected species</li> <li>Ensure no adverse effects on the integrity of any European site, with regard to its qualifying interests, associated conservation status, structure and function</li> <li>Safeguard national, regional and local designated sites and supporting features which function as stepping stones for migration, dispersal and genetic exchange of wild species</li> <li>Enhance biodiversity in line with the National Biodiversity Strategy and its targets</li> <li>To protect, maintain and conserve the County's natural capital</li> </ul>	<ul> <li>Condition of European sites</li> <li>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</li> <li>SEA and AA as relevant for new Council policies, plans, programmes etc.</li> <li>Status of water quality in the County's water bodies</li> <li>Compliance of planning permissions with Plan measures providing for the protection of Biodiversity and flora and fauna – see Chapter 11: Biodiversity and Natural Heritage"</li> </ul>	<ul> <li>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</li> <li>Implement and review, as relevant, Local Biodiversity Action Plans</li> <li>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 Chapter 11: Biodiversity and Natural Heritage"</li> </ul>
Population and Human Health	РНН	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> <li>Promote economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management</li> <li>Ensure that existing population and planned growth is matched with the required public infrastructure and the required services</li> <li>Safeguard the County's citizens from environment-related pressures and risks to health and well-being</li> </ul>	<ul> <li>Implementation of Plan measures relating to the promotion of economic growth as provided for by Chapter 6 "Economic Development"</li> <li>Number of spatial concentrations of health problems arising from environmental factors resulting from development permitted under the Plan</li> <li>Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures</li> <li>Number of spatial plans that include specific green infrastructure mapping</li> </ul>	<ul> <li>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 Chapter 6 "Economic Development"</li> <li>No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan</li> <li>Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures.</li> <li>Implementation of Green Infrastructure</li> </ul>
Soil (and Land)	S	Ensure the long-term sustainable management of land	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 within the County     Safeguard areas of prime agricultural land and designated geological sites	<ul> <li>Proportion of population growth occurring on infill and brownfield lands compared to greenfield</li> <li>Volume of contaminated material generated from brownfield and infill</li> <li>Number of AA determinations and environmental assessments undertaken to support applications for brownfield and infill development prior to planning permission</li> </ul>	<ul> <li>Maintain built surface cover nationally to below the EU average of 4% as per the NPF.</li> <li>NPF National Policy Objective 3c: Deliver at least 30% of all new homes that are targeted in settlements other than the five Cities and their suburbs, within their existing built-up footprints.</li> </ul>

Environmental	SEO	Guiding	Strategic Environmental Objectives	Indicators	Targets
Component	Code	Principle			
Water	W	Protection, improvement and sustainable management of the water resource	<ul> <li>Ensure that the status of water bodies is protected, maintained and improved in line with the requirements of the Water Framework Directive</li> <li>Ensure water resources are sustainably managed to deliver proposed regional and County growth targets in the context of existing and projected water supply and waste water capacity constraints ensuring the protection of receiving environments</li> <li>Avoid inappropriate zoning and development in areas at risk of flooding and areas that are vulnerable to current and future erosion</li> <li>Integrate sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals</li> </ul>	<ul> <li>Status of water bodies as reported by the EPA Water Monitoring Programme for the WFD</li> <li>Number of incompatible developments permitted within flood risk areas</li> </ul>	<ul> <li>Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status'</li> <li>Implementation of the objectives of the second cycle of the River Basin Management Plan by 2021 (and subsequent iterations as relevant)</li> <li>Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk</li> </ul>
Material Assets	MA	Sustainable and efficient use of natural resources	<ul> <li>Optimise existing infrastructure and provide new infrastructure to match population distribution proposals in the County</li> <li>Ensure access to affordable, reliable, sustainable and modern energy for all which encourages a broad energy generation mix to ensure security of supply – wind, wave solar, tidal, biomass, energy from waste and traditional fossil fuels</li> <li>Promote the circular economy, reduce waste, and increase energy efficiencies</li> <li>Ensure there is adequate sewerage and drainage infrastructure in place to support new development</li> <li>Reduce the energy demand from the transport sector and support moves to electrification of road and rail transport modes</li> <li>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</li> </ul>	Programmed delivery of Irish Water infrastructure for all key growth towns in line with Irish Water 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  Proportion of population within who report regular cycling / walking to school and work above 2016 CSO figures	<ul> <li>To map brownfield and infill land parcels across the County.</li> <li>All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan</li> <li>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</li> <li>Increased budget spends on water and waste water infrastructure</li> <li>By 2020 all citizens will have access to speeds of 30Mbps, and that 50% of citizens will be subscribing to speeds of 100Mbps</li> </ul>

Environmental	SEO	Guiding	Strategic Environmental Objectives	Laois County Development Plan 2021-2027  Indicators	Targets
Component	Code	Principle	- Lategio Entra di montari del		
Air	A	Support clean air policies that reduce the impact of air pollution on the environment and public health	<ul> <li>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</li> <li>Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency</li> <li>Promote continuing improvement in air quality</li> <li>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</li> <li>Meet Air Quality Directive standards for the protection of human health — Air Quality Directive</li> <li>Significantly decrease noise pollution by 2020 and move closer to WHO recommended levels</li> </ul>	Proportion of journeys made by private fossil fuel-based car compared to 2016 National Travel Survey levels of 74%  NO <sub>x</sub> , SO <sub>x</sub> , PM10 and PM2.5 as part of Ambient Air Quality Monitoring	<ul> <li>Decrease in proportion of journeys made by private fossil fuel-based car compared to 2016 National Travel Survey levels.</li> <li>Improvement in Air Quality trends, particularly in relation to transport related emissions of NO<sub>x</sub> and particulate matter</li> </ul>
Climatic Factors <sup>77</sup>	С	Achieving transition to a competitive, low carbon, climate-resilient economy that is cognisant of environmental impacts	<ul> <li>To minimise emissions of greenhouse gasses.</li> <li>Integrate sustainable design solutions into the County's infrastructure (e.g. energy efficient buildings; green infrastructure)</li> <li>Contribute towards the reduction of greenhouse gas emissions in line with national targets</li> <li>Promote development resilient to the effects of climate change</li> <li>Promote the use of renewable energy, energy efficient development and increased use of public transport</li> </ul>	<ul> <li>Implementation of Plan measures relating to climate reduction targets as provided for by Plan provisions including those provided for and referenced in Chapter 3 "Climate Change"</li> <li>Proportion of journeys made by private fossil fuel-based car compared to 2016 levels</li> <li>Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures</li> </ul>	<ul> <li>For review of progress on implementing Plan objectives to demonstrate successful implementation of measures climate reduction targets as provided for by Plan provisions including those provided for and referenced in Chapter 3 "Climate Change"</li> <li>Increase in the proportion of people resident in the County reporting regular cycling / walking to school and work above 2016 CSO figures</li> <li>Decrease in the proportion of journeys made by residents of the County using private fossil fuel-based car compared to 2016 levels</li> <li>Contribute towards transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050</li> <li>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 2020</li> <li>Contribute towards the target of aggregate reduction in carbon dioxide (CO<sub>2</sub>) emissions of at least 80% (compared to 1990 levels) by 2050 across the electricity generation, built environment and transport sectors</li> </ul>

<sup>&</sup>lt;sup>77</sup> Please also refer to relevant legislation and requirements under Section 4.10, Section 8.6, Section 8.8.3 and Appendix I. Targets under the national Climate Action Plan are reviewed and updated periodically and include those under the headings of Electricity, Built Environment, Transport, Agriculture, Forestry & Land Use and Enterprise. 72

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives	Indicators	Targets
					<ul> <li>To promote reduced energy consumption and support the uptake of renewable options and a move away from solid fuels for residential heating</li> <li>See various other national and local targets under Section 8.6.</li> </ul>
Cultural Heritage	СН	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	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     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> <li>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</li> <li>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</li> </ul>
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	Number of 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     To seek to align with the National Landscape Strategy	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. Whether or not alternatives for the County Development Plan are available has been identified by Laois County Council under Tiers 1 to 7 detailed below. These alternatives are assessed in Section 7.

### 6.2 Limitations in Available Alternatives

The Plan is required to be prepared by 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 limited by the provisions of higher-level planning objectives, including those of the National Planning Framework (NPF) and the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region. These documents set out various requirements for the content of the Plan including on topics such as settlement typology, land use zoning and the sustainable development of rural areas.

## 6.3 Tier 1: Alternatives for an Ecosystem Services Approach to the Plan

Although many natural capital<sup>78</sup> and ecosystem<sup>79</sup> service issues have been taken into account over previous Plan periods, the importance of these in fulfilling environmental obligations has increasingly emerged. 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

- Alternative A: A Plan that takes an Ecosystems Services Approach; or
- Alternative B: A Plan that does not take an Ecosystems Services Approach.

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<sup>78</sup> Renewable and non-renewable resources (e.g. plants, animals, air, water, soils, minerals)

<sup>79</sup> 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

## 6.4 Tier 2: Alternatives for Positioning under the Settlement Hierarchy

The Settlement Hierarchy Levels for the Plan are identified on Table 6.1.

Table 6.1 Settlement Hierarchy Levels in Laois

Settlement Level	Settlement Category	Description
1	Key Towns	Large economically active service and/or county towns that provide employment for their surrounding areas and with high-quality transport links and the capacity to act as growth drivers to complement the Regional Growth Centres.
2	Self- Sustaining Growth Towns	Self-Sustaining Growth Towns with a moderate level of jobs and services – includes sub-county market towns and commuter towns with good transport links and capacity for continued commensurate growth to become more self-sustaining
3	Self- Sustaining Towns	Self-Sustaining Growth Towns with a moderate level of jobs and services – includes sub-county market towns and commuter towns with good transport links and capacity for continued commensurate growth to become more self- sustaining
4	Towns and Villages	Self-Sustaining Towns with high levels of population growth and a weak employment base which are reliant on other areas for employment and/or services and which require targeted 'catch up' investment to become more self-sustaining.
5	Rural	Serviced Rural Villages, Rural Settlement Clusters and the wider rural region

In considering significant realistic alternatives for placing of individual settlements under alternative typologies, the planning authority has taken into account the objectives of the NPF and the Eastern and Midland RSES. As a result, there are no strategic reasonable alternatives available for placing settlements under the hierarchy.

### 6.5 Tier 3: Alternatives for Population Allocations

Following allocation of most of the County's projected new population across the County's settlements, taking into account the requirements of higher-level planning objectives, a decision was required as to whether to provide for an unallocated extent of growth – either to the Key Town Graiguecullen (Carlow) or the Self-Sustaining Growth Town of Portarlington.

Alternative A: Provide additional extent of growth to Graiguecullen (Carlow); or

Alternative B: Provide additional extent of growth to Portarlington.

## 6.6 Tier 4: Alternatives for Rural Housing Designations

**Alternative A:** Provide 3 Rural Housing Designations for the County as set out in the County Development Plan 2017-2023:

- Areas under Strong Urban Influence
- Stronger Rural Areas
- Structurally Weak Areas.

**Alternative B:** Provide 2 Rural Housing Designations as follows (also integrating mapping of Areas of Sensitivity - Natura 2000 Network), based on most up to date requirements, guidance and data:

- Areas under Strong Urban Influence
- Structurally Weak Areas

**Alternative C:** Do not provide for Rural Housing Designations and assess all applications on their merit.

### 6.7 Tier 5: Alternatives for Densities

**Alternative A:** Application of a single standard density across all settlements.

**Alternative B:** Application of different densities at different locations, as appropriate; higher densities where sustainable transport mode opportunities are available and lower densities where constraints are presented by, for example, wastewater and water infrastructure constraints, cultural heritage designations or the local road network.

### 6.8 Tier 6: Alternatives for Land Use Zoning

Land use 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 and Eastern and Midlands RSES. Requirements relating to land use zoning provided for by the NPF and RSES limit the availability of alternatives for various settlements.

Reasonable alternatives have been identified for certain settlements, where these are available. The findings of the examination of available strategic reasonable land use zoning alternatives for settlements is provided at Table 6.2.

**Table 6.2 Screening for Available Reasonable Alternatives** 

Settlement	Settlements	Ava	ailable Reasonable Alternati	ves
Typology		Not applicable	Not available – taking into account high-level planning objectives	Assessable Alternatives
Key Town	Portlaoise			✓
	Graiguecullen	LAP to be prepared		
Self Sustaining Growth Town	Portarlington	LAP to be prepared		
Self Sustaining	Abbeyleix			✓
Town	Mountmellick			✓
	Mountrath			✓
	Stradbally			✓
Other Settlements	Clonalsee		✓	
	Ballinakill		✓	
	Borris in Ossory			✓
	Ballyinan			✓
	Durrow			✓
	Arles		✓	
	Ballcolla			✓
	Ballybrittas			✓
	Ballyroan			✓
	Camross		✓	
	Castletown		✓	
	Clough			✓
	Coolrain		✓	
	Cullahill			<b>√</b>
	Emo			✓
	Errill		✓	
	Kileen		✓	
	Killeshin			✓
	Killenard		✓	
	Newtown Doonane			✓
	Rathdowney			<b>√</b>
	Rosenallis		✓	
	The Swan		✓	
	Timahoe			✓
	Vicarstown		✓	

A description of assessable alternatives are provided on Table 6.3. Maps for each of these alternatives are provided in Appendix II "Indicative Mapping of Land Use Zoning Alternatives".

**Table 6.3 Description of Assessable Alternatives Available** 

Settlement Typology	Settlements	Available Reasonable Alternatives Set 1	Available Reasonable Alternatives Set 2 (if available)	Available Reasonable Alternatives Set 3 (if available)
Key Town	Portlaoise	"New Residential" Zoning:  A. To south of proposed indicative northern bypass or B. Infill throughout the town		
Self-Sustaining Town	Abbeyleix	Site south of the School on Ballyroan Road  A. Zone New Residential or B. Zone Community/ Educational/ Institutional	"Town Centre" Zoning:  A. Less compact or B.  More compact	
	Mountmellick	"New Residential" Zoning: <b>A.</b> Less compact <b>or B.</b> More compact		
	Mountrath	"New Residential" Zoning: <b>A.</b> Less compact <b>or B.</b> More compact	Addition of "Open Space Amenity" Zoning along rivers and streams A. Add to existing or B. Don't add to existing	
	Stradbally	"Enterprise and Employment" Zoning: A. Less compact or B. More compact		
Other Settlements	Borris in Ossory	"General Business" Zoning: <b>A.</b> Less compact <b>or B.</b> More compact		
Settlements	Ballyinan	"New Residential" Zoning:  A. Less compact or B. More compact		
	Durrow	"New Residential" Zoning: <b>A.</b> Less compact <b>or B.</b> More compact	Zoning around WWTP:  A. Town Centre or B.  Open Space	Zoning of Graveyard: A. Town Centre or B. Community, Educational and Institutional
	Ballcolla	"Town Centre" Zoning: <b>A.</b> Less compact <b>or B.</b> More compact		
	Ballybrittas	"Industrial" Zoning: <b>A.</b> Less compact <b>or B.</b> More compact		
	Ballyroan	"New Residential" Zoning: <b>A.</b> Less compact <b>or B.</b> More compact		
	Clough	Various Zoning Objectives:  A. Less compact or B. More compact		
	Cullahill	A. More compact, with public Open Space in the centre of the Village or B. Less compact, with Town Centre in the centre of the Village		
	Emo	A. More compact, with Open Space in area surrounding demesne or     B. Less compact, with Community/ Educational/ Institutional Zoning in area surrounding demesne		
	Killeshin	"Town Centre" Zoning: <b>A.</b> Less compact <b>or B.</b> More compact		
	Rathdowney	"New Residential" Zoning:  A. Less compact or B. More compact		
	Timahoe	Zoning of Round Tower Site:  A. Village Centre or B. Tourism or Leisure		

### **Section 7** Evaluation of Alternatives

### 7.1 Introduction

This section provides a comparative evaluation of the likely significant environmental effects<sup>80</sup> 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 degree to which effects can be determined is limited as implementation of the Plan will involve assessment, consideration and decision-making associated with lower tier plans and individual projects. Nonetheless a comparative evaluation of the various alternatives can be provided.

Table 7.1 Strategic Environmental Objectives<sup>81</sup>

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives
Biodiversity, Flora and Fauna	BFF	No net contribution to biodiversity losses or deterioration	<ul> <li>To preserve, protect, maintain and, where appropriate, enhance the terrestrial, aquatic and soil biodiversity, particularly EU designated sites and protected species</li> <li>Ensure no adverse effects on the integrity of any European site, with regard to its qualifying interests, associated conservation status, structure and function</li> <li>Safeguard national, regional and local designated sites and supporting features which function as stepping stones for migration, dispersal and genetic exchange of wild species</li> <li>Enhance biodiversity in line with the National Biodiversity Strategy and its targets</li> <li>To protect, maintain and conserve the County's natural capital</li> </ul>
Population and Human Health	РНН	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> <li>Promote economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management</li> <li>Ensure that existing population and planned growth is matched with the required public infrastructure and the required services</li> <li>Safeguard the County's citizens from environment-related pressures and risks to health and well-being</li> </ul>
Soil (and Land)	S	Ensure the long-term sustainable management of land	<ul> <li>Protect soils against pollution, and prevent degradation of the soil resource</li> <li>Promote the sustainable use of infill and brownfield sites over the use of greenfield within the County</li> <li>Safeguard areas of prime agricultural land and designated geological sites</li> </ul>
Water	W	Protection, improvement and sustainable management of the water resource	<ul> <li>Ensure that the status of water bodies is protected, maintained and improved in line with the requirements of the Water Framework Directive</li> <li>Ensure water resources are sustainably managed to deliver proposed regional and County growth targets in the context of existing and projected water supply and waste water capacity constraints ensuring the protection of receiving environments</li> <li>Avoid inappropriate zoning and development in areas at risk of flooding and areas that are vulnerable to current and future erosion</li> <li>Integrate sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals</li> </ul>

<sup>&</sup>lt;sup>80</sup> These effects include secondary, cumulative (see also Section 8.2), synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

<sup>81</sup> See also Section 5

Environmental	SEO	Guiding Principle	Strategic Environmental Objectives
Component	Code	3 1	
Material Assets	МА	Sustainable and efficient use of natural resources	<ul> <li>Optimise existing infrastructure and provide new infrastructure to match population distribution proposals in the County</li> <li>Ensure access to affordable, reliable, sustainable and modern energy for all which encourages a broad energy generation mix to ensure security of supply – wind, wave solar, tidal, biomass, energy from waste and traditional fossil fuels</li> <li>Promote the circular economy, reduce waste, and increase energy efficiencies</li> <li>Ensure there is adequate sewerage and drainage infrastructure in place to support new development</li> <li>Reduce the energy demand from the transport sector and support moves to electrification of road and rail transport modes</li> <li>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</li> </ul>
Air	A	Support clean air policies that reduce the impact of air pollution on the environment and public health	<ul> <li>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</li> <li>Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency</li> <li>Promote continuing improvement in air quality</li> <li>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</li> <li>Meet Air Quality Directive standards for the protection of human health — Air Quality Directive</li> <li>Significantly decrease noise pollution by 2020 and move closer to WHO recommended levels.</li> </ul>
Climatic Factors	С	Achieving transition to a competitive, low carbon, climate-resilient economy that is cognisant of environmental impacts	<ul> <li>To minimise emissions of greenhouse gasses.</li> <li>Integrate sustainable design solutions into the County's infrastructure (e.g. energy efficient buildings; green infrastructure).</li> <li>Contribute towards the reduction of greenhouse gas emissions in line with national targets.</li> <li>Promote development resilient to the effects of climate change</li> <li>Promote the use of renewable energy, energy efficient development and increased use of public transport</li> </ul>
Cultural Heritage	СН	Safeguard cultural heritage features and their settings through responsible design and positioning of development	<ul> <li>Protect places, features, buildings and landscapes of cultural, archaeological or architectural heritage</li> </ul>
Landscape	L	Protect and enhance the landscape character	<ul> <li>To implement the Plan's framework for identification, assessment, protection, management and planning of landscapes having regard to the European Landscape Convention</li> </ul>

### 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 local level – sustainable development and compact growth in County Laois. 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 7.2 Effects Common to All Alternatives** 

Environmental Component	Significant Positive Effect, likely to occur	Potentially Significant Adverse Environmental Effects, if unmitigated
Population and Human Health	<ul> <li>Contribution towards protection of ecology (including designated sites, ecological connectivity, habitats) by facilitating development of lands (including those within and adjacent to the County's settlements) 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 County and beyond.</li> <li>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.</li> <li>Promotion of economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management.</li> <li>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 County's settlements) 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 County and beyond</li> <li>Contribution towards the protection of human health by facilitating development of lands (including those within and adjacent to the County's settlements) 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 to the less than the development of lands (including those within and adjacent to develop more sensitive, less well-serviced to the less than the development of lands (including those lands the need to develop more sensitive, less well-serviced lands lands</li></ul>	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 and bats.  Potential adverse effects arising from flood events.  Potential interactions if effects arising from environmental vectors.
Soil	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 County's settlements) 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 County and beyond.	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.
Water	Contribution towards the protection of water by facilitating development of lands (including those within and adjacent to the County's settlements) 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 County and beyond.	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.

Environmental Component	Significant Positive Effect, likely to occur	Potentially Significant Adverse Environmental Effects, if unmitigated
Material Assets	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 County's settlements) 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 County and beyond.  Contribution towards limits in increases in energy demand from the transport sector by facilitating sustainable compact growth.	<ul> <li>Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts).</li> <li>Failure to adequately treat surface water runoff that is discharged to water bodies (water services infrastructure and capacity ensures the mitigation of potential conflicts).</li> <li>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).</li> <li>Increases in waste levels.</li> <li>Potential impacts upon public assets and infrastructure.</li> <li>Interactions between agriculture and soil, water, biodiversity and human health including phosphorous and nitrogen deposition as a result of agricultural activities and the production of secondary inorganic particulate matter.</li> </ul>
Air and Climatic Factors	Contribution towards climate mitigation and adaptation by facilitating compact development of lands (including those within and adjacent to the County's settlements) 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 County and beyond.	<ul> <li>Potential conflict between development under the Plan and aiming to reduce carbon emissions in line with local, national and European environmental objectives.</li> <li>Potential conflicts between transport emissions, including those from cars, and air quality.</li> <li>Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors.</li> <li>Potential conflicts with climate adaptation measures including those relating to flood risk management.</li> </ul>
Cultural Heritage	Contributes towards protection of cultural heritage elsewhere in the County by facilitating development within existing settlements.	<ul> <li>Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.</li> </ul>
Landscape	Contributes towards protection of wider landscape and landscape designations by facilitating development within existing settlements.	Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.

## 7.3.2 Assessment of Tier 1: Alternatives for an Ecosystem<sup>82</sup> Services Approach to the Plan

**Alternative A: "A Plan that takes an Ecosystems Services Approach"** 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 capital<sup>83</sup> 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.

Alternative B: "A Plan that does not take 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.

#### Selected Tier 1 Alternative for the Plan: Alternative A.

Tier 1 alternatives are assessed against Strategic Environmental Objectives on Table 7.3.

<sup>&</sup>lt;sup>82</sup> 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

<sup>83</sup> Renewable and non-renewable resources (e.g. plants, animals, air, water, soils, minerals)

Table 7.3 Assessment<sup>84</sup> of Tier 1 Alternatives against Strategic Environmental Objectives

Alternative	Likely to <u>Improve</u> status of SEOs			Potential Conflict with status of SEOs – likely to be mitigated		
(selected alternative in bold)	to a Greater degree	to a Moderate degree	to a <u>Lesser</u> degree	to a <u>Lesser</u> degree	to a Moderate degree	to a Greater degree
A. A Plan that takes an Ecosystems Services Approach	BFF PHH S W MA A C CH L			BFF PHH S W MA A C CH L		
B. A Plan that does not take an Ecosystems Services Approach			BFF PHH S W MA A C CH L			BFF PHH S W MA A C CH L

### 7.3.3 Assessment of Tier 3: Alternatives for Population Allocations

Following allocation of most of the County's projected new population across the County's settlements, taking into account the requirements of higher-level planning objectives, a decision was required as to whether to provide for an unallocated extent of growth – either to (**Alternative A**) the Key Town Graiguecullen (Carlow) or (**Alternative B**) the Self-Sustaining Growth Town of Portarlington.

Based on the planning interactions provided for the alternatives it can be identified that:

- There would be more control over water services infrastructure in Portarlington than would be the case with Graiguecullen (Carlow) – this means that there would be greater certainty that development could take place in Portarlington and that environmental protection and management would be contributed towards.
- Graiguecullen is connected by virtue of the train lines to Dublin/Waterford from Carlow, it is not as connected as Portarlington. Sustainable accessibility is more of an attractive feature in Portarlington.
- Portarlington has experienced rapid population growth with high levels of commuter focused residential expansion without the equivalent increase in jobs and services. However, Portarlington is located on the main line railway line Dublin-Galway and Dublin-Cork/Limerick and since 2016 has experienced investment in services including a new secondary school and a new library and ongoing investment in Community and leisure centres. On an economic front, since 2016, a number of new business have been established in Portarlington with Portarlington Enterprise Centre expanding their offering to allow for more remote working practices on site. Derryounce Walks and Trails also has been developed since 2016 which has improved the amenities in Portarlington.
- While Portarlington may have low resident to worker ratio at 0.43 (CSO, 2016) it has developed since 2016 which would suggest that the catch up required has already started. For the reason

The interactions identified are reflective of likely significant environmental effects:

- 1. Interactions that would be likely to improve the status of a particular SEO would be likely to result in a significant positive effect on the protection/management of the environmental component/issues to which the SEO relates.
- 2. Interactions that would potentially conflict with the status of an SEO and would be likely to be mitigated would be likely to result in a potential significant negative effect however these effects would be likely to be mitigated by measures which have been integrated into the Plan.

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

<sup>&</sup>lt;sup>84</sup> The alternatives are evaluated using compatibility criteria 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 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.

of good connectivity, the offering of a variety of economic opportunities such as large tracts of zoned land for industrial purposes to remote working, it was considered that Portarlington should be allowed to grow appropriate to the scale of the town with a focus on compact growth and emphasis on developing economic and social opportunities.

#### Selected Tier 3 Alternative for the Plan: Alternative A.

Tier 3 alternatives are assessed against Strategic Environmental Objectives on Table 7.4.

Table 7.4 Assessment<sup>85</sup> of Tier 3 Alternatives against Strategic Environmental Objectives

Alternative	Likely to	Improve status	of SEOs	Potential Conflict with status of SEOs – likely to be mitigated				
(selected alternative in bold)	to a Greater degree	to a  Moderate degree	to a <u>Lesser</u> degree	to a <u>Lesser</u> degree	to a Moderate degree	to Greater degree	a	
A: Provide additional extent of growth to Graiguecullen (Carlow); or		BFF PHH S W MA A C CH L			BFF PHH S W MA A C CH L			
B: Provide additional extent of growth to Portarlington	BFF PHH S W MA A C CH L			BFF PHH S W MA A C CH L				

## 7.3.4 Assessment of Tier 4: Alternatives for Rural Housing Designations

**Alternative A:** "Provide 3 Rural Housing Designations for the County as set out in the County Development Plan 2017-2023" would restrict development in rural areas that are under strong urban influence would positively impact upon the protection and management of the environment and sustainable development. The restrictions would help to both reduce levels of greenfield development in areas immediately surrounding existing centres and encourage brownfield development within existing centres - to a lesser degree than would be the case under Alternative B, as this approach would be based on older requirements, guidance and data.

Rural development would be directed towards appropriate rural areas and urban development would be directed towards established settlements. This alternative would help to prevent low density urban sprawl and associated adverse effects upon sustainable mobility, climate emission reduction targets and various environmental components – to a lesser degree than would be the case under Alternative B, as this approach would be based on older requirements, guidance and data.

The interactions identified are reflective of likely significant environmental effects:

<sup>&</sup>lt;sup>85</sup> The alternatives are evaluated using compatibility criteria 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 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.

<sup>3.</sup> Interactions that would be likely to improve the status of a particular SEO would be likely to result in a significant positive effect on the protection/management of the environmental component/issues to which the SEO relates.

<sup>4.</sup> Interactions that would potentially conflict with the status of an SEO and would be likely to be mitigated would be likely to result in a potential significant negative effect however these effects would be likely to be mitigated by measures which have been integrated into the Plan.

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

**Alternative B:** "Provide 2 Rural Housing Designations as follows (also integrating mapping of Areas of Sensitivity - Natura 2000 Network based on most up to date requirements, guidance and data" would restrict development in rural areas that are under strong urban influence would positively impact upon the protection and management of the environment and sustainable development. The restrictions would help to both reduce levels of greenfield development in areas immediately surrounding existing centres and encourage brownfield development within existing centres – to a greater degree than would be the case under Alternative A.

Rural development would be directed towards appropriate rural areas and urban development would be directed towards established settlements. This alternative would help to prevent low density urban sprawl and associated adverse effects upon sustainable mobility, climate emission reduction targets and various environmental components – to a greater degree than would be the case under Alternative A.

**Alternative C**, by not providing for Rural Housing Designations at Plan level and instead assessing all applications on their merit, would provide a less coherent and coordinated approach that would adversely impact upon the protection and management of the environment and sustainable development. The absence of restrictions would be more likely to result in increased levels of greenfield development in areas immediately surrounding existing centres and less demand for brownfield development within existing centres.

Urban generated development would be more likely to occur under this alternative within rural areas outside of established settlements. This alternative would result in lower density urban sprawl and associated adverse effects upon sustainable mobility, climate emission reduction targets and various environmental components.

#### Selected Tier 4 Alternative for the Plan: Alternative A.

#### Note:

The Selected Tier 4 Alternative for the Draft Plan was Alternative B. However, the Members adopted a Plan that provides for Alternative A. This does not benefit the protection and management of the environment as well as Alternative B does.

Tier 4 alternatives are assessed against Strategic Environmental Objectives on Table 7.5.

Table 7.5 Assessment of Tier 4 Alternatives against Strategic Environmental Objectives

Alternative	Likely to	Improve status	of SEOs	Potential Conflict with status of SEOs – likely to be mitigated				
(selected alternative in bold)	to a Greater degree	to a Moderate degree	to a <u>Lesser</u> degree	to a <u>Lesser</u> degree	to a Moderate degree	to a Greater degree		
A. Provide 3 Rural Housing Designations for the County as set out in the County Development Plan 2017-2023		BFF PHH S W MA A C CH L			BFF PHH S W MA A C CH L			
B. Provide 2 Rural Housing Designations as follows (also integrating mapping of Areas of Sensitivity - Natura 2000 Network)	BFF PHH S W MA A C CH L			BFF PHH S W MA A C CH L				
C. Do not provide for Rural Housing Designations and assess all applications on their merit.			BFF PHH S W MA A C CH L			BFF PHH S W MA A C CH L		

### 7.3.5 Assessment of Tier 5: Alternatives for Densities

Alternatives identified relating to densities comprise:

**Alternative A:** Application of a single standard density across all settlements.

The application of a singular low net residential density across the County would have the potential to push new development towards more environmentally sensitive lands that are less well-serviced and less well-connected, resulting in unnecessary potentially significant adverse effects on all environmental components.

The application of a singular high net residential density could result in a potential misalignment between the supply of zoned land to meet the projected demand for new housing. This could result in a misalignment between new development and essential services provision with associated potential for adverse effects on environmental components.

**Alternative B**: The Application of different densities at different locations, as appropriate, would provide for the most sustainable development, which would contribute towards environmental protection and management the most.

Higher densities would be provided where sustainable transport mode opportunities are available and lower densities would be provided where constraints are presented by, for example, wastewater and water infrastructure constraints, cultural heritage designations or the local road network. This approach would contribute towards national and regional strategic outcomes including the efficient use of land, compact growth and the transition towards a low carbon and more climate resilient society.

Alternative B would help to ensure compact, sustainable development within and adjacent to the existing built-up footprint and would conflict with the protection and management of environmental components the least. Alignment between new development and essential services provision would be most likely under Alternative B.

Selected Tier 5 Alternative for the Plan: Alternative B.

Tier 5 alternatives are assessed against Strategic Environmental Objectives on Table 7.6.

Table 7.6 Assessment of Tier 5 Alternatives against Strategic Environmental Objectives

Alternative	Likely to	Improve status	of SEOs	Potential Conflict with status of SEOs – likely to be mitigated			
(selected alternative in bold)	to a Greater degree	to a Moderate degree	to a <u>Lesser</u> degree	to a <u>Lesser</u> degree	to a Moderate degree	to a Greater degree	
A. Application of a single standard density across all settlements			BFF PHH S W MA A C CH L			BFF PHH S W MA A C CH L	
B. Application of different densities at different locations, as appropriate	BFF PHH S W MA A C CH L			BFF PHH S W MA A C CH L			

### 7.3.6 Assessment of Tier 6: Alternatives for Land Use Zoning

Tier 6 alternatives are assessed on Table 7.7.

**Table 7.7 Assessment of Tier 6 Alternatives** 

Town	Alternative		Improve statu	s of SEOs	Potential (	Conflict with sta	atus of SEOs –	
						kely to be mitiga		
	(selected	to a	to a	to a	to a	to a	to a	Commentary Provided at Draft Plan Stage
	alternatives in <b>bold</b> )	Greater degree	Moderate degree	<u>Lesser</u> degree	<u>Lesser</u> degree	Moderate degree	<u>Greater</u> degree	
Portlaoise	"New Residential" Zoning: A. To south of proposed indicative northern bypass	dogree	degree	BFF PHH S MA A C CH L	degree	uog.co	BFF PHH S MA A C CH L	Development of lands to the south of the proposed indicative northern bypass would provide high levels of accessibility to the regional and national road network. However, these are greenfield lands and by not consolidating land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from other infrastructural investment in the town. By failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts
								to improve sustainable mobility (with associated effects on energy, air, noise and human health). Higher levels of premature development and associated avoidable potential adverse environmental effects would be likely to occur.
	or B. Infill throughout the town	BFF PHH S MA A C CH L			BFF PHH S MA A C CH L			By consolidating land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid premature development, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing greenfield development would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Selection of lands for zoning throughout the County took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
to zoning. This doe Abbeyleix	es not benefit the protection Site south of the			BFF PHH			ughout the town	The zoning of this site south of the school on the Ballyroan Road as Community/ Educational/ Institutional
(Alternative Set 1)	School on Ballyroan Road A. Zone New Residential			S MA A C CH L			MA A C CH L	would allow for needed educational related facilities, collocated beside the existing school. Such facilities are necessary in making settlements more desirable places to live – so that they maintain and improve services to existing and future communities. Attracting new populations into the County's settlements will reduce demand for development in areas that are less well serviced and connected – that type of
	or B. Zone Community/ Educational/ Institutional	BFF PHH S MA A C CH L			BFF PHH S MA A C CH L			development would be unsustainable and would have higher environmental impacts. The development of educational related facilities would present potential local impacts; residual impacts would be mitigated by the measures integrated into the Plan.
Abbeyleix (Alternative Set 2)	"Town Centre" Zoning: A. Less compact			BFF PHH S MA A C CH L			BFF PHH S MA A C CH L	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	or B. More compact	BFF PHH S MA A C CH L			BFF PHH S MA A C CH L			By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental

Town	Alternative	Likely to	Improve statu		Potential (	Conflict with st kely to be mitig	atus of SEOs –	evelopment Fian 2021-2021
	(selected alternatives in <b>bold</b> )	to a Greater degree	to a Moderate degree	to a Lesser degree	to a Lesser degree	to a  Moderate degree	to a <u>Greater</u> degree	Commentary Provided at Draft Plan Stage
								components. Selection of lands for zoning throughout the County took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Rathdowney	"New Residential" Zoning: A. Less compact			BFF PHH S MA A C CH L			BFF PHH S MA A C CH L	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	or B. More compact	BFF PHH S MA A C CH L			BFF PHH S MA A C CH L			By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Selection of lands for zoning throughout the County took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Mountmellick	"New Residential" Zoning: A. Less compact			BFF PHH S MA A C CH L			BFF PHH S MA A C CH L	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	or B. More compact	BFF PHH S MA A C CH L			BFF PHH S MA A C CH L			By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Selection of lands for zoning throughout the County took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
	native for Mountmellick tion and management of						adopted a Plan t	that provides a mix between Alternative A "Less Compact" and Alternative B "More Compact". This does not
Mountrath (Alternative Set 1)	"New Residential" Zoning: A. Less compact			BFF PHH S MA A C CH L	·		BFF PHH S MA A C CH L	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	or B. More compact	BFF PHH S MA A C CH L			BFF PHH S MA A C CH L			By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental

Town	Alternative	Likely to	Improve statu		Potential (	Conflict with sta	atus of SEOs –	everopment Plant 2021-2027
	(selected alternatives in <b>bold</b> )	to a <u>Greater</u> degree	to a <u>Moderate</u> degree	to a <u>Lesser</u> degree	to a  Lesser  degree	to a  Moderate  degree	to a  Greater  degree	Commentary Provided at Draft Plan Stage
								effects that would otherwise occur - this would benefit the protection of multiple environmental components. Selection of lands for zoning throughout the County took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Mountrath (Alternative Set 2)	Addition of "Open Space Amenity" Zoning along rivers and streams A. Add to existing	BFF PHH S MA A C CH L			BFF PHH S MA A C CH L			The additional "Open Space Amenity" Zoning would help to improve protection of future residential and employment populations (and their and the town's built assets) from flood risk, further contribute towards the protection of this amenity asset from visually intrusive developments and further contribute towards the protection of ecological connectivity and the quality of surface waters. The absence of a green buffer would make adverse impacts upon the aforementioned sensitivities more likely.
	or B. Don't add to existing			BFF PHH S MA A C CH L			BFF PHH S MA A C CH L	
Stradbally	"Enterprise and Employment" Zoning: A. Less compact			BFF PHH S MA A C CH L			BFF PHH S MA A C CH L	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	or B. More compact	BFF PHH S MA A C CH L			BFF PHH S MA A C CH L			By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Selection of lands for zoning throughout the County took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Borris in Ossory	"General Business" Zoning: A. Less compact			BFF PHH S MA A C CH L			BFF PHH S MA A C CH L	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	or B. More compact	BFF PHH S MA A C CH L			BFF PHH S MA A C CH L			By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Selection of lands for zoning throughout the County took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Ballylynan	"New Residential" Zoning: A. Less compact			BFF PHH S MA A C CH L			BFF PHH S MA A C CH L	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for

Town	Alternative	Likely to	Improve statu		Potential (	Conflict with st	atus of SEOs –	evelopment Plan 2021-2027
	(aslasted	4	4	4	1	kely to be mitiga		Commontoni Provided at Dueft Dlaw Ctare
	(selected alternatives in <b>bold</b> )	to a <u>Greater</u> degree	to a Moderate degree	to a <u>Lesser</u> degree	to a <u>Lesser</u> degree	to a Moderate degree	to a <u>Greater</u> degree	Commentary Provided at Draft Plan Stage
			, and the second	Ŭ				unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
Note:	or B. More compact	BFF PHH S MA A C CH L			BFF PHH S MA A C CH L			By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Selection of lands for zoning throughout the County took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
The Selected Alter	native for Ballylynan in a			B "More Compa	nct". However,	the Members a	dopted a Plan th	nat is closer to Alternative A "Less Compact". This does not benefit the protection and management of the
Durrow (Alternative Set 1)	"New Residential" Zoning: A. Less compact			BFF PHH S MA A C CH L			BFF PHH S MA A C CH L	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	or B. More compact	BFF PHH S MA A C CH L			BFF PHH S MA A C CH L			By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Selection of lands for zoning throughout the County took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Durrow (Alternative Set 2)	Zoning around WWTP: A. Town Centre		BFF S A C CH L	РНН МА		BFF S A C CH L	РНН МА	A buffer of Open Space around the WWTP would help to avoid any conflicts between new residential development and the WWTP development – such as those which could arise from emissions or impacts on residential amenity.
	or B. Open Space	РНН МА	BFF S A C CH L		РНН МА	BFF S A C CH L		
Durrow (Alternative Set 3)	Zoning of Graveyard: A. Town Centre		BFF PHH S A C L	MA CH		BFF PHH S A C L	MA CH	This is an existing graveyard and Town Centre uses on this site would not be in the interests of the sustainable development of the town. Zoning as Community, Educational and Institutional would be commensurate with the existing use and could allow for future small-scale developments.
	or B. Community, Educational and Institutional	MA CH	BFF PHH S A C L		MA CH	BFF PHH S A C L		
Ballcolla	"Town Centre" Zoning: A. Less compact			BFF PHH S MA A C CH L			BFF PHH S MA A C CH L	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	or B. More compact	BFF PHH S MA A C CH L			BFF PHH S MA A C CH L			By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this

Town	Alternative	Likely to	Improve statu			Conflict with st		evelopment Plan 2021-2027
	/ l l l					kely to be mitigate		
	(selected alternatives in <b>bold</b> )	to a <u>Greater</u> degree	to a <u>Moderate</u> degree	to a <u>Lesser</u> degree	to a <u>Lesser</u> degree	to a  Moderate  degree	to a <u>Greater</u> degree	Commentary Provided at Draft Plan Stage
	20.0)	degree	dogree	degree	acgree	acyrec	dogree	alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Selection of lands for zoning throughout the County took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Ballybrittas	"Industrial" Zoning: A. Less compact			BFF PHH S MA A C CH L			BFF PHH S MA A C CH L	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	or B. More compact	BFF PHH S MA A C CH L			BFF PHH S MA A C CH L			By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Selection of lands for zoning throughout the County took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Ballyroan	"New Residential" Zoning: A. Less compact			BFF PHH S MA A C CH L			BFF PHH S MA A C CH L	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	or B. More compact	BFF PHH S MA A C CH L			BFF PHH S MA A C CH L			By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Selection of lands for zoning throughout the County took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.

Town	Alternative	Likely to	Improve status		Potential (	Conflict with st	atus of SEOs –	evelopment Fian 2021-2027
	(selected alternatives in <b>bold</b> )	to a <u>Greater</u> degree	to a  Moderate  degree	to a <u>Lesser</u> degree	to a  Lesser  degree	kely to be mitiga to a <u>Moderate</u> degree	to a  Greater  degree	Commentary Provided at Draft Plan Stage
Clough	Various Zoning Objectives: A. Less compact	223.22		BFF PHH S MA A C CH L	2-3,-12		BFF PHH S MA A C CH L	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	or B. More compact	BFF PHH S MA A C CH L			BFF PHH S MA A C CH L			By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Selection of lands for zoning throughout the County took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Cullahill	A. More compact, with public Open Space in the centre of the Village	BFF PHH S MA A C CH L			BFF PHH S MA A C CH L			By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Selection of lands for zoning throughout the County took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
	or B. Less compact, with Town Centre in the centre of the Village			BFF PHH S MA A C CH L			BFF PHH S MA A C CH L	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
Emo	A. More compact, with Open Space in area surrounding demesne	BFF PHH S MA A C CH L			BFF PHH S MA A C CH L			By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Selection of lands for zoning throughout the County took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
	or B. Less compact, with Community/ Educational/ Institutional Zoning in area surrounding demesne			BFF PHH S MA A C CH L			BFF PHH S MA A C CH L	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.

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Town	Alternative	Likely to	Improve status	s of SEOs	Potential (	Conflict with sta	atus of SEOs –	
		•			li	kely to be mitiga	ated	
	(selected	to a	to a	to a	to a	to a	to a	Commentary Provided at Draft Plan Stage
	alternatives in							commencer y riovided at Brait rian stage
		<u>Greater</u>	<u>Moderate</u>	Lesser	Lesser	<u>Moderate</u>	<u>Greater</u>	
	bold)	degree	degree	degree	degree	degree	degree	
Killeshin	"Town Centre"			BFF PHH			BFF PHH S	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would
	Zoning:			S MA A C			MA A C CH	provide for a less compact form of development that would fail to maximise benefits from infrastructural
	A. Less compact			CH L			L	investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this
								alternative would decrease the likelihood of brownfield development and conflict with efforts to improve
								sustainable mobility (with associated effects on energy, air, noise and human health). Providing for
								unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential
								adverse environmental effects.
	or B. More	BFF PHH			BFF PHH			By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide
	compact	S MA A C			S MA A C			for a more compact form of development that would help to maximise benefits from infrastructural
		CH L			CH L			investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this
								alternative would increase the likelihood of brownfield development and contribute towards efforts to
								improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing
								unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental
								effects that would otherwise occur - this would benefit the protection of multiple environmental
								components. Selection of lands for zoning throughout the County took into account: whether water
								services infrastructure was already provided for or, if not, whether it could be more easily provided for;
								access to transport infrastructure; and proximity to the existing development envelope and town centre.
Timahoe	Zoning of Round	BFF PHH			BFF PHH			This is an existing cultural heritage asset in the town that includes built heritage. Providing for potential
	Tower Site:	S MA A C			S MA A C			future tourism uses at this site could contribute towards the future sustainable development of the town
	A. Village Centre	CHL			CH L			and associated environmental protection and management.
	A. Village Certife	CHL			CHL			and associated environmental protection and management.
	or B. Tourism or			BFF PHH			BFF PHH S	4
	Leisure			S MA A C			MA A C CH	
				CH L			L	

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

Selected alternatives for the Plan from each of the tiers of alternatives that emerged from the planning/SEA process are indicated above.

These alternatives have been incorporated into the Plan 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.

## **Section 8** Evaluation of 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 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 Objectives<sup>86</sup>

Environmental	SEO	Guiding Principle	Strategic Environmental Objectives
Component Biodiversity, Flora and Fauna	BFF	No net contribution to biodiversity losses or deterioration	<ul> <li>To preserve, protect, maintain and, where appropriate, enhance the terrestrial, aquatic and soil biodiversity, particularly EU designated sites and protected species</li> <li>Ensure no adverse effects on the integrity of any European site, with regard to its qualifying interests, associated conservation status, structure and function</li> <li>Safeguard national, regional and local designated sites and supporting features which function as stepping stones for migration, dispersal and genetic exchange of wild species</li> <li>Enhance biodiversity in line with the National Biodiversity Strategy and its targets</li> <li>To protect, maintain and conserve the County's natural capital</li> </ul>
Population and Human Health	РНН	Improve quality of life for all ages and abilities based on high-quality, serviced, well connected and sustainable residential, working, educational and recreational environments	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 the County's 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> <li>Protect soils against pollution, and prevent degradation of the soil resource</li> <li>Promote the sustainable use of infill and brownfield sites over the use of greenfield within the County</li> <li>Safeguard areas of prime agricultural land and designated geological sites</li> </ul>
Water	W	Protection, improvement and sustainable management of the water resource	<ul> <li>Ensure that the status of water bodies is protected, maintained and improved in line with the requirements of the Water Framework Directive</li> <li>Ensure water resources are sustainably managed to deliver proposed regional and County growth targets in the context of existing and projected water supply and waste water capacity constraints ensuring the protection of receiving environments</li> <li>Avoid inappropriate zoning and development in areas at risk of flooding and areas that are vulnerable to current and future erosion</li> <li>Integrate sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals</li> </ul>
Material Assets	MA	Sustainable and efficient use of natural resources	Optimise existing infrastructure and provide new infrastructure to match population distribution proposals in the County Ensure access to affordable, reliable, sustainable and modern energy for all which encourages a broad energy generation mix to ensure security of supply – wind, wave solar, tidal, 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

<sup>86</sup> See also Section 5

Environmental	SEO	Guiding Principle	Strategic Environmental Objectives
Component	Code	3 1	<b>3</b>
Air	A	Support clean air policies that reduce the impact of air pollution on the environment and public health	<ul> <li>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</li> <li>Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency</li> <li>Promote continuing improvement in air quality</li> <li>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</li> <li>Meet Air Quality Directive standards for the protection of human health — Air Quality Directive</li> <li>Significantly decrease noise pollution by 2020 and move closer to WHO recommended levels.</li> </ul>
Climatic Factors	С	Achieving transition to a competitive, low carbon, climate-resilient economy that is cognisant of environmental impacts	<ul> <li>To minimise emissions of greenhouse gasses.</li> <li>Integrate sustainable design solutions into the County's infrastructure (e.g. energy efficient buildings; green infrastructure)</li> <li>Contribute towards the reduction of greenhouse gas emissions in line with national targets</li> <li>Promote development resilient to the effects of climate change</li> <li>Promote the use of renewable energy, energy efficient development and increased use of public transport</li> </ul>
Cultural Heritage	СН	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	<ul> <li>To implement the Plan's framework for identification, assessment, protection, management and planning of landscapes having regard to the European Landscape Convention</li> </ul>

### 8.2 Cumulative Effects<sup>87</sup>

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 8.2.

Other policies, plans and programmes that have been considered by the assessment of effects include those which are detailed under Section 2.6 (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:

<sup>&</sup>lt;sup>87</sup> The EPA's guidance note 'Good Practice Guidance note on cumulative effects assessment in SEA' has been considered in the assessment.

- Land use policy, plans and programmes (e.g. the National Planning Framework, the Eastern and Midland Regional Spatial and Economic Strategy, adjoining County Development Plans and Local Area Plans);
- 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, Offshore Renewable Energy Development Plan, Draft 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, Low Carbon Development Act 2015 and White Paper Ireland's Transition to a Low Carbon Energy Future 2015, Climate Action Plan 2021, the National Adaptation Framework 2018, and the Laois Climate Change Adaptation Strategy 2019 and Climate Action Charter 2019);
- Water services, waste management, transport and energy infrastructure plans (e.g. Irish Water's Water Services Strategic Plan and associated Capital Investment Plan, Eastern-Midlands Regional Waste Management Plan 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 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/a shift from motorised transport modes to more sustainable and non-motorised transport modes; and
  - o renewable energy development.
- 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 County border;
- 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 is consistent with those described on Table 8.2. 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 County Laois.

A variety of the issues covered by the Plan provisions are regional issues which are considered: at Regional Assembly level, in the Eastern and Midland RSES and by planning authorities across the Region. The solutions to these issues are often regional solutions which are subject their own consenting procedures. Works arising outside of the Plan as a result of providing for new development within the County including those arising as a result of the cumulative provision of development in the

wider Eastern and Midland region would potentially conflict with a number of environmental components, across the wider Eastern and Midland 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

Laois County Council have integrated various recommendations arising from the SEA, AA and SFRA processes into the Plan (see Section 9). Table 8.2 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 through both provisions integrated into the Plan – see Section 9.

Taking into account, *inter alia*, the detailed mitigation which has been integrated into the Plan (including that which is identified at Section 9), it has been determined that significant residual adverse environmental effects will not occur.

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 8.2 Overall Evaluation – Effects arising from the Plan

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 2018, the Eastern and Midland RSES, 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> <li>Contribution towards protection of ecology (including designated sites, ecological connectivity, habitats) by facilitating development of lands (including those within and adjacent to the County's settlements) 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 County and beyond.</li> <li>Contribution towards the maintenance of existing green infrastructure and associated ecosystem services, listed species, ecological connectivity and non-designated habitats.</li> <li>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.</li> <li>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.</li> </ul>	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 and bats.	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  Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP 2018, the Eastern and Midland RSES, 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> <li>Promotion of economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management.</li> <li>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 County's settlements) 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 County and beyond</li> <li>Contribution towards the protection of human health by facilitating development of lands (including those within and adjacent to the County's settlements) 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 County and beyond.</li> <li>Contributes towards protection of human health as a result of contributing towards the protection of natural capital including environmental vectors, including air and water.</li> </ul>	<ul> <li>Potential adverse effects arising from flood events.</li> <li>Potential interactions if effects arising from environmental vectors.</li> </ul>	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> <li>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 County's settlements) 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 County and beyond.</li> <li>Contribution towards the protection of the environment from contamination the highest standards of remediation, and where appropriate to consultations with the EPA and other relevant bodies, will be required to resolve any instances of environmental pollution created by contaminated land.</li> </ul>	<ul> <li>Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of development on contaminated lands.</li> <li>Potential for riverbank erosion.</li> </ul>	Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces.	S

Environmental Component		tal Effects, in combination with the wider planning framewon the wider planning framework including the NPF and associated NDP 2018, to 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	
Water	<ul> <li>Contribution towards the protection of water by facilitating development of lands (including those within and adjacent to the County's settlements) 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 County and beyond.</li> <li>Contributions towards the protection of water resources including the status of surface and groundwaters and water-based designations.</li> <li>Contribution towards flood risk management and appropriate drainage.</li> </ul>	<ul> <li>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.</li> <li>Increase in flood risk and associated effects associated with flood events.</li> </ul>	<ul> <li>Any increased loadings as a result of development to comply with the River Basin Management Plan.</li> <li>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.</li> </ul>	W
Material Assets	<ul> <li>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 County's settlements) 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 County and beyond.</li> <li>Contribution towards compliance with national and regional water services and waste management policies.</li> <li>Contribution towards increase in renewable energy use by facilitating renewable energy and electricity transmission infrastructure developments.</li> <li>Contribution towards limits in increases in energy demand from the transport sector by facilitating sustainable compact growth.</li> <li>Contribution towards reductions in average energy consumption per capita including promoting energy efficient buildings, retrofitting, smart buildings, cities and grids.</li> </ul>	<ul> <li>Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts).</li> <li>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).</li> <li>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).</li> <li>Increases in waste levels.</li> <li>Potential impacts upon public assets and infrastructure.</li> <li>Interactions between agriculture and soil, water, biodiversity and human health - including phosphorous and nitrogen deposition as a result of agricultural activities and the production of secondary inorganic particulate matter.</li> </ul>	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	Effects include in-combination effects that are planned for through	ffects, in combination with the wider planning framework in the wider planning framework including the NPF and associated NDP 2018, the 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> <li>Contribution towards climate mitigation and adaptation by facilitating compact development of lands (including those within and adjacent to the County's settlements) 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 County and beyond.</li> <li>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> <li>Sustainable compact growth;</li> <li>Sustainable mobility, including walking, cycling and public transport; and</li> <li>Drainage, flood risk management and resilience;</li> <li>Sectors including agriculture, forestry, energy and buildings.</li> </ul> </li> </ul>	<ul> <li>Potential conflict between development under the Plan and aiming to reduce carbon emissions in line with local, national and European environmental objectives.</li> <li>Potential conflicts between transport emissions, including those from cars, and air quality.</li> <li>Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors.</li> <li>Potential conflicts with climate adaptation measures including those relating to flood risk management.</li> </ul>	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> <li>Contributes towards protection of cultural heritage elsewhere in the County by facilitating development within existing settlements.</li> <li>Contributes towards protection of cultural heritage within existing settlements by facilitating brownfield development and regeneration.</li> </ul>	<ul> <li>Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.</li> </ul>	Potential effects on known architectural and archaeological heritage and unknown archaeology however, these will occur in compliance with legislation.	СН
Landscape	Contributes towards protection of wider landscape and landscape designations by facilitating development within existing settlements.	Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.	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

# 8.4 Instances whereby Environmental Considerations were not integrated into the Plan

The Plan, considered as a whole, contributes towards environmental protection and management and sustainable development and complies with various legislative requirements. This is identified throughout the SEA documentation.

Various Plan provisions that would contribute towards the sustainable development of the County would, at the same time, have the potential to conflict with the environment, were mitigation measures not taken into account. This is normal and mitigation measures have been integrated into the Plan to deal with these potential effects.

However, a small number of provisions have been adopted by the Elected Members as part of the Plan that are particularly internally inconsistent with the overall approach provided for by the Plan. The main such provisions – and the associated environmental assessment provided during the SEA/Plan preparation process – are summarised on Table 3.1 in Section 3 of this report.

# 8.5 Appropriate Assessment and Strategic Flood Risk Assessment

Stage 2 Appropriate Assessment (AA) and Strategic Flood Risk Assessment (SFRA) have been 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 conclusion of the AA is that the Plan will not affect the integrity of the Natura 2000 network<sup>88</sup>.

SFRA is required by '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. Recommendations from the SFRA have been integrated into the Plan.

Various policies and objectives have been integrated into the Plan through the SEA, SFRA and AA processes. The preparation of the Plan, SEA, AA and SFRA has taken place concurrently and the findings of the AA and SFRA have informed both the Plan and the SEA.

# 8.6 Climate Action Targets and Plan Responses

Aligning with the Climate Strategy of the RSES, climate action targets and responses are identified under four Key Action Areas on Table 8.3 below. These responses, together with other Plan responses such as those on energy, focus on how Laois County Council will help to reduce greenhouse gas emissions and improve resilience. Additional climate adaptation and mitigation objectives have been integrated into each chapter where appropriate.

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 and Eastern and Midland RSES and the emissions targets.

<sup>88</sup> Except as provided for in Article 6(4) of the Habitats Directive, viz. There must be:

<sup>(</sup>a) no alternative solution available;

<sup>(</sup>b) imperative reasons of overriding public interest for the plan/programme/project to proceed; and

<sup>(</sup>c) adequate compensatory measures in place.

The Plan is informed by a Strategic Flood Risk Assessment (SFRA) that has considered climate change and integrated flood risk management into the Plan's land use zoning, settlement by settlement.

	Table 8.3 How Climate Action has been integrated into the Plan								
National Target	Local Target	Climate O	_	Plan Commentary					
		(see Secti Mitigate							
ACTION AREA 1 - SU	STAINABLE TRANSPORT	wiitigate	ниарі						
Reduce CO <sub>2</sub> eq. Emissions from The Sector By 45 % To 50 % Pre NDP-Projections Increase the no of EV to 936,000 Build the EV charging network to support the growth of EVS at the rate required	Delivery of a public transportation hub in the key town of Portlaoise by 2027;     The prioritization and delivery of Public bus measures in the key towns of Portlaoise and Graiguecullen by 2027;     The prioritisation of pedestrian linkages and creation of blueways / Greenways in the key town of Portlaoise/ Graiguecullen and Portarlington     Additional 30 EV charge Points in Portlaoise by 2027     Achieve Modal Shift in line with national targets and Table 14.1	CM ST 1 CM ST 2 CM ST 3 CM ST 4 CM ST 5 CM ST 6 CM ST 7 CM ST 8 CM ST 9 CM ST 10	CA ST 1 CA ST 2 CA ST 3 CA ST 4	The transport sector is one of the biggest contributors of GHG emissions in the County where the predominant mode of transport is the private car. This is evident in the number of commuters leaving the county for work purposes which equates to 12,000 per day. How we travel between places will also need to be addressed, promoting a modal shift away from car dependency for more sustainable and active transport modes.					
ACTION AREA 2 – BU	ILT ENVIRONMENT								
<ul> <li>Reduce CO<sub>2</sub> eq. Emissions from The Sector By 45 % To 50 % Pre NDP Projections;</li> <li>Reduce fossil fuel use and transition from reliance on gas, coal, oil and peat;</li> <li>Increase the no of Sustainable energy Communities to 1,500;</li> <li>Complete the rollout of the support system for Renewable Heat , including the support of biomass and anaerobic digestion heating systems</li> <li>Enterprise must contribute to the more ambitious targets for buildings (20-25%) and transport (45%-50%)</li> </ul>	<ul> <li>Implement the '2040 and Beyond: Is a Vision for Portlaoise' strategy to reexamines and re-purposes the Town Centre of Portlaoise to a low carbon town;</li> <li>In addition to the SEC established in Abbeyleix, Establish an SEC's in Portlaoise by 2021, Graiguecullen by 2023 and Portarlington by 2023</li> <li>Complete the Carbon Footprint measure for Portlaoise by Q1 2021;</li> <li>Introduce a Decarbonisation Zone<sup>89</sup> within Portlaoise Town which will seek to boost energy efficiency and reduce fossil energy use as this is vital to manage rapidly growing energy consumption in urban areas;</li> <li>Carry out retrofit projects for public housing estates in Co Laois completing 160 units by 2021 and further retrofitting throughout the rest of the plan period. Actual completions will be specified in an annual monitoring report</li> </ul>	CM BE 1 CM BE 2 CM BE 3 CM BE 4	CA BE 1 CA BE 2 CA BE 3 CA BE 4 CA BE 5 CA BE 6 CA BE 7 CA BE 8 CA BE 9 CA BE 10 CA BE 11	How we plan for different landuses and subsequently design our buildings will have significant impact on addressing climate change. Communities must become less dependent on fossil fuels in an emerging low or zero-carbon world by promoting more sustainable forms of travel and renewable energy sources. Residential, commercial, industrial and public buildings will also need to maximise their energy efficiency and move to more sustainable and renewable energy sources.  Adapting the built environment through the use of green infrastructure such as sustainable urban drainage systems, living roofs and other innovations helps to alleviate the effects of climate change. Greening of buildings can also help with insulation against heat and cold, as well as offering new habitats to wildlife. Street trees and other vegetation also absorb air pollution and help with shading and cooling.  Considerable emphasis has been placed in the Regional and Spatial Strategy on the regeneration of vacant buildings and Brownfield sites in order to rejuvenate towns and villages.  RPO 3.2 of the RSES requires that at least 30% of future homes are targeted in settlements located within the existing built-up footprint of these settlements in an effort address compact development and reduce unsustainable urban sprawl.  Laois County Council has already began significant steps to transform Portlaoise into the Country's first low carbon town and has secured funding under the Urban and Regeneration Development Fund (URDF).					

<sup>&</sup>lt;sup>89</sup> Is a zone which achieves the reduction of carbon dioxide emissions through the use of low carbon power sources, achieving a lower output of greenhouse gasses into the atmosphere.

National Target	Local Target	Climate O	hiactivas	Plan Commentary
Wational Target	Local ranget	(see Secti	-	Tian commentary
		Mitigate		
ACTION AREA 3 – LAN	ID USE (INCLUDING AGRICULTU			
Deliver 16.5 -18.52 MtCO <sub>2</sub> eq. Cumulative abatement     Achieve 26.8 Mtco2eq abatement through LULUCF actions over the period 2021-2030 comprised of     An average of 8,000 ha per annum of newly planted forest and sustainable forest management of existing forests (21 MtCO2eq. Cumulative abatement)     at least 40,000 ha per annum of reduced management intensity of grasslands on drained organic soils (4.4 MtCO2eq. Cumulative abatement)	Increase the Public Open space provision in the Town of Portlaoise through the Open space and amenity at Tyrrells Land / The ridge Portlaoise  The greening of James Fintan Lalor Avenue  Progress the "Neighbourwood" project in Balladine, Abbeyleix which will hopefully see 1.5 Ha of native woodland established in the estate carbon sink etc.  Support Abbeyleix Bog Conservation Group to progress actions in relation to biodiversity on the bog and green infrastructure through the bog	RE / FORES	TRY / GI)  CA LU 1  CA LU 2  CA LU 3  CA LU 4  CA LU 5  CA LU 6	Agriculture is the highest producer of greenhouse gas emissions in the country <sup>90</sup> , both through intensive agriculture activity and through land use changes. Intensive agricultural practices such as land clearing can lead to essential loss of vegetation, soil cover and forestry that act as a carbon sink, storing carbon dioxide.  The main direct agricultural GHG emissions are nitrous oxide emissions from fertilizers and methane production from ruminant animals.  Climate change will affect the natural environment as weather patterns change, temperatures rise and species relocate. However, the natural environment, greenspaces and green infrastructure also have an essential role in offsetting some of the predicted impacts of climate change. There are many risks to the natural environment from climate change, including biodiversity change and loss, environmental degradation, longer growing seasons, increased incidence of pests and disease, and flooding.  Green infrastructure provides a wide range of adaptive benefits, including providing shade and cooling for urban centres, reducing the impact of heavy rain by absorbing water and slowing run-off, improving air and water quality by absorbing pollutants. Well-connected green networks aid species movement and dispersal, therefore integrated habitat networks form a key component of this Plan.
ACTION AREA 4 - ENE	ERGY (refer to Section 3.5 for fur	ther policy o	bjectives on	renewable energy)
Reduce CO2 eq. Emissions From The Sector By 45 % To 50 % Pre NDP Projections Deliver an early and complete phase out of coal and peat fired electricity generation Increase electricity generated from renewable resources to 70%- indicatively comprised of Up to 1.5 GW OF Grid scale solar energy up to 8.2 GW total of increased onshore wind capacity	<ul> <li>1,500 LED Public lights have been upgraded within the Key town of Portlaoise, 1,200 in housing estates with a further 1,000 planned to be replaced by 2022, which will produce an energy saving of 60%.</li> <li>50 additional solar powered compactor bins within the county by 2027;</li> <li>Facilitate the development of the xxx of solar energy that has been permitted within the county by 2030</li> <li>Facilitate the development of the xx of wind energy that has been permitted within the county by 2030</li> </ul>			Improving Ireland's energy efficiency to address climate change is a fundamental part of Ireland's energy policy. The Government, through the EU's Energy Efficiency Directive 2012/27/EU, has committed itself to achieving a 20% reduction in energy demand across the whole of the economy by 2020 through energy efficiency measures and also set a more challenging target of achieving a 33% improvement on energy efficiency levels in the public sectors.

<sup>90</sup> EPA Environmental Indicators

# 8.7 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								

### 8.8 Detailed Evaluation<sup>91</sup>

For an explanation of SEO codes e.g. BFF, PHH, S, W, etc. refer to Table 8.1 on page 95.

The following applies to each of the sub-sections 8.8.1 to 8.8.15 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 and the Regional Spatial and Economic Strategy for the Eastern and Midland Region (for additional detail please refer to Section 2.6 "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.

# 8.8.1 Chapter 1: Introduction

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs – unlikely to be mitigated		No Likely interaction with status of SEOs
Provisions of this Chapter include the Plan's Vision and associated Objectives. For more details, please refer to the Plan.	BFF PHH S W MA A C CH L	. <b>,</b>	BFF PHH S W MA A C CH L	3. 3233

#### Commentary

The assessment of the Plan's Vision and associated Objectives against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The interactions identified are reflective of likely significant environmental effects:

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

<sup>&</sup>lt;sup>91</sup> The Plan's provisions are evaluated using compatibility criteria 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 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.

<sup>1.</sup> Interactions that would be likely to improve the status of a particular SEO would be likely to result in a significant positive effect on the protection/management of the environmental component/issues to which the SEO relates.

<sup>2.</sup> Interactions that would potentially conflict with the status of an SEO and would be likely to be mitigated would be likely to result in a potential significant negative effect however these effects would be likely to be mitigated by measures which have been integrated into the Plan.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the County, 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.

The SEA process that has been undertaken alongside the preparation of the Plan 2021-2027 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. Many other measures were integrated into the current 2017-2023 Plan through the SEA process for that Plan and have been retained and/or updated – these are also detailed at Section 9. By integrating SEA recommendations into the Plan, Laois County Council is 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.

The Vision and associated Objectives in this Chapter of the Plan would contribute towards sustainable development and the protection and management of the environment.

# 8.8.2 Chapter 2: Core and Settlement Strategy

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs – unlikely to be mitigated		No Likely interaction with status of SEOs
Provisions of this Chapter comprise those relating to the Plan's Core and Settlement Strategy. For more details, please refer to the Plan.	BFF PHH		BFF PHH	
	S W MA A		S W MA A	
	C CH L		C CH L	

#### Commentary

The assessment of the Plan's Core and Settlement Strategy and associated Policy Objectives against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the County, in combination with other Plan provisions and other plans, programmes, strategies, etc. This includes the Regional Spatial and Economic Strategy that designates Portlaoise and Graiguecullen/Carlow as Key Towns – this designation and the settlement typologies set out by the RSES has informed the Core, Settlement and Housing Strategies.

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.

The SEA process that has been undertaken alongside the preparation of the Plan 2021-2027 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. Many other measures were integrated into the current 2017-2023 Plan through the SEA process for that Plan and have been retained and/or updated – these are also detailed at Section 9. By integrating SEA recommendations into the Plan, Laois County Council is 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.

The provisions in this Chapter of the Plan would contribute towards sustainable development and the protection and management of the environment, for example:

- The Ecosystems Approach Policy Objectives, which were integrated through the SEA process
- Strategic Aim VI
- Strategic Aim VII

# 8.8.3 Chapter 3: Climate Action and Energy

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs – unlikely to be mitigated	Mitigated Conflicts	No Likely interaction with status of SEOs
Provisions of this Chapter comprise those relating to Climate Action and Energy. For more details, please refer to the Plan.	BFF PHH		BFF PHH	
	S W MA A		S W MA A	
	C CH L		C CH L	

#### Commentary

The assessment of the Plan's Climate Change provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the County, in combination with other Plan provisions and other plans, programmes, strategies, etc. including:

- The Climate Action Plan that allocates the following three actions to local authorities: Action 64 Introduce minimum BER standards in the Local Authority social housing stock as part of retrofit works being carried out on older stock or refurbishment of vacant dwellings; Action 65 Develop and establish a climate-action toolkit and audit framework for Local Authority development planning to drive the adoption of stronger climate action policies in relation to the patterns and forms of future development.; and Action 66 Roadmap to develop supply chain to support the phase out of fossil fuel boilers in new dwellings.
- The National Planning Framework, which sets out 10 National Strategic Outcomes (NSOs) to guide the future development of Ireland over the next 20 years, of which 2 are related specifically to addressing climate action NSO 8 'Transition to a Low Carbon and Climate Resilient Society' and NSO 9 'Sustainable Management of Water, Waste and other Environmental Resources'. There are further National Policy Objectives (NPOs) noted within the theme of climate change and how mitigation and adaption measures are required. Of particular note, Laois County Council must demonstrate compliance with NPOs in areas such as densification, NPO 3 (C) 30% brownfield (role of Urban Regeneration and Development Fund in consolidation) integrating transport links, increasing permeability (both pedestrian and cycling) and connection to public transport.
- The Eastern and Midland Regional Spatial and Economic Strategy that has identified various Regional Policy Objectives relating to climate action, including 7.32 "With the assistance and support of the Climate Action Regional Offices, local authorities shall develop, adopt and implement local climate adaptation and mitigation strategies which shall address issues including local vulnerability to climate risks and identify and prioritise actions, in accordance with the guiding principles of the National Adaptation Framework, National Mitigation Plan.", 7.35 "EMRA shall, in conjunction with local authorities in the Region, identify Strategic Energy Zones as areas suitable for larger energy generating projects, the role of community and micro energy production in urban and rural settings and the potential for renewable energy within industrial areas. The Strategic Energy Zones for the Region will ensure all environmental constraints are addressed in the analysis. A regional landscape strategy should be developed to support delivery of projects within the Strategic Energy Zones." and "Local authorities shall include policies in statutory land use plans to promote high levels of energy conservation, energy efficiency and the use of renewable energy sources in existing buildings including retro fitting of energy efficiency measures in the Region will be required to achieve the Nearly Zero-Energy Buildings (NZEB) standard in line with the Energy Performance of Buildings Directive (EPBD)."

Various provisions in this Chapter contribute towards the framework for the development of renewable energy. These Policies Objectives would contribute towards achieving various government objectives and targets including those relating to climate mitigation and reducing greenhouse gas emissions and increasing the amount of energy to be consumed from renewable sources. The development of renewable energy would have the potential to adversely impact upon the environment, if unmitigated. Further general commentary on the types of potential effects arising from certain renewable energy types is provided below.

#### Wind Energy

Positive Effects: Contribution towards renewable energy and minimisation of greenhouse gases targets

Potential Negative Effects, if unmitigated:

- Potential impacts include those associated with construction and operation of the turbines and ancillary facilities and infrastructure (including roads and electrical infrastructure)
- Potential human health impact: shadow flicker, noise, and impacts arising from landslides
- · Potential impact upon designated and non-designated biodiversity and flora and fauna including birdlife and marine habitats
- Potential interactions leading to change in structure of soil and geology and changes to drainage
- Potential impacts on water status during construction this could interact with drinking water sources and biodiversity
- · Potential impacts upon the context of protected archaeological and architectural heritage including the context of this heritage as well as unknown archaeological heritage
- Potential impacts upon traffic during construction due to transportation of turbine components
- Changes to the character of areas would be likely to occur however visual impacts would depend on various factors including the size, number and spacing of the turbines, perception of the relevant areas and any cumulative effect arising from multiple wind farms.

#### Solar Energy

Positive Effects: Contribution towards renewable energy and minimisation of greenhouse gases targets Potential Negative Effects, if unmitigated:

- Potential impacts on architectural heritage including the context of this heritage at micro scale
- Potential impacts on habitats and species and micro scale
- Large scale installations may have visual impacts these would depend on perception of the relevant area -, however these are unlikely to be provided for

#### Hydro-Energy

Positive Effects: Contribution towards renewable energy and minimisation of greenhouse gases targets

Potential Negative Effects, if unmitigated:

- Depending on the scale and location of the development there is potential for impacts to occur on biodiversity, in particular aquatic biodiversity
- Potential to impact upon the morphological, biological and chemical status of waters this could interact with drinking water sources (in freshwater) and biodiversity
- Potential interactions leading to change in structure of soil and geology
- Operation could impact upon flood risk elsewhere
- Potential impacts upon archaeological heritage or nearby architectural heritage, including context
- . Changes to the character of locations may occur however visual impacts would depend upon, inter alia, the size of the installation, ancillary facilities and the perception and visibility of the relevant area

#### Bio-Energy

Positive Effects: Contribution towards renewable energy and minimisation of greenhouse gases targets. Can provide for the use of agricultural and other wastes Potential Negative Effects, if unmitigated:

- Potential impact upon designated and non-designated biodiversity and flora and fauna arising from changes in vegetation. Soil structure may also be impacted upon.
- . Changes in farming practices may lead to changes in drainage and runoff which could impact upon biological and chemical status of waters - this could interact with drinking water sources and biodiversity
- Potential human health impact: odour and noise from operation of plants
- Potential impacts upon traffic during operation due to transportation of fuel to plants
- · Fuels derived from bio-mass still produce emissions however these are less than those derived from fossil fuels
- Changes to the land cover of areas could occur however visual impacts would depend on perception of the relevant area
- Biomass plants may have visual impacts these would depend on perception of the relevant area

Mitigation has been integrated into various provisions relating to the development of renewable and non-renewable energy, including detailed Development Management Standards for Solar (DM RE 1), Wind (DM RE 2) and Power Lines and Overhead Cables (DM NRE 1).

Provisions relating to energy, would contribute towards achieving various government objectives and targets including those relating to climate mitigation and reducing greenhouse gas emissions and increasing the amount of energy to be consumed from renewable sources. Further general commentary on the types of potential effects arising from certain renewable energy types is provided below.

The SEA process that has been undertaken alongside the preparation of the Plan 2021-2027 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. Many other measures were integrated into the current 2017-2023 Plan through the SEA process for that Plan and have been retained and/or updated – these are also detailed at Section 9. By integrating SEA recommendations into the Plan, Laois County Council is 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.

Please also refer to Section 8.6"Climate Action Targets and Plan Responses" which shows how climate action has been integrated throughout the Plan.

## 8.8.4 Chapter 4: Housing Strategy

	status of	Probable Conflict with status of SEOs – unlikely to be	Mitigated Conflicts	No Likely interaction with status
Provisions of this Chapter comprise those relating to the Plan's Housing Strategy. For more details, please refer to the Plan.	SEOs  BFF PHH S W MA A C CH L	mitigated	BFF PHH S W MA A C CH L	of SEOs

#### Commentary

The assessment of the Plan's Housing Strategy and associated provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the County, in combination with other Plan provisions and other plans, programmes, strategies, etc. This includes NPF National Policy Objective 19 which requires a clear distinction to be made between areas under urban influence and elsewhere in providing for the

development of rural housing. 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.

The SEA process that has been undertaken alongside the preparation of the Plan 2021-2027 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. Many other measures were integrated into the current 2017-2023 Plan through the SEA process for that Plan and have been retained and/or updated – these are also detailed at Section 9. By integrating SEA recommendations into the Plan, Laois County Council is 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.

The provisions in this Chapter of the Plan would contribute towards sustainable development and the protection and management of the environment, including various and detailed Development Management Standards for Overshadowing and Open Space (DM HS 8), Landscaping and Biodiversity (DM HS 19), Wastewater Treatment (DM RH 4) and Serviced Sites (DM RH6).

# 8.8.5 Chapter 5: Quality of Life and Sustainable Communities

	Likely to Improve status of SEOs	Probable <u>Conflict</u> with status of SEOs – unlikely to be mitigated	Mitigated Conflicts	No Likely interaction with status of SEOs
Provisions of this Chapter comprise those relating to Quality of Life and Sustainable Communities. For more details, please refer to the Plan.	BFF PHH S		BFF PHH S	
	W MA A C		W MA A C	
	CH L		CH L	

#### Commentary

The assessment of the Plan's Quality of Life and Sustainable Communities provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the County, 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.

The SEA process that has been undertaken alongside the preparation of the Plan 2021-2027 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. Many other measures were integrated into the current 2017-2023 Plan through the SEA process for that Plan and have been retained and/or updated – these are also detailed at Section 9. By integrating SEA recommendations into the Plan, Laois County Council is 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.

The provisions in this Chapter of the Plan would contribute towards sustainable development and the protection and management of the environment.

Refer also to further commentary on green infrastructure under Section 8.8.11 "Chapter 11: Biodiversity and Natural Heritage".

## 8.8.6 Chapter 6: Economic Development

	Likely to Improve status of SEOs	Probable <u>Conflict</u> with status of SEOs – unlikely to be mitigated	Mitigated Conflicts	No Likely interaction with status of SEOs
Provisions of this Chapter comprise those relating to Economic Development. For more details, please refer to the Plan.	BFF PHH S		BFF PHH S	
	W MA A C		W MA A C	
	CH L		CH L	

#### Commentary

The assessment of the Plan's Economic Development provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the County, in combination with other Plan provisions and other plans, programmes, strategies, etc. The guiding principles for the identification of locations for strategic employment growth outlined in the RSES and the RSES's Economic Strategy's key objectives (Smart Specialisation, Clustering, Orderly Growth, Placemaking and Future Proofing and Risk Management) have been integrated into the Economic Development provisions in this Chapter. The bulk of the industrial and associated zonings are located in accordance with the settlement strategy which in turn adheres to advice from the Regional Spatial and Economic Strategy RSES as to the optimum siting of population growth and employment generation. The Plan also recognises the large towns of Portalington, Mountrath, Abbeyleix and Mountmellick and Key Town of Graiguecullen, which provide important employment functions and are suitable for economic development opportunities. Beyond the bigger towns, the Council has allocated economic development and employment generating land use zonings in a number of smaller settlements that benefit from being in close proximity to the improved road and rail transport network, including Borris-in-Ossory, Ballacolla, Ballybrittas and Rathdowney.

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.

The SEA process that has been undertaken alongside the preparation of the Plan 2021-2027 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. Many other measures were integrated into the current 2017-2023 Plan through the SEA process for that Plan and have been retained and/or updated – these are also detailed at Section 9. By integrating SEA recommendations into the Plan, Laois County Council is 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.

The provisions in this Chapter of the Plan would contribute towards sustainable development and the protection and management of the environment.

# 8.8.7 Chapter 7: Retail and Town/Village Centre Management

	Likely to Improve status of SEOs	Probable <u>Conflict</u> with status of SEOs – unlikely to be mitigated	Mitigated Conflicts	No Likely interaction with status of SEOs
Provisions of this Chapter comprise those relating to Retail and Town/Village Centre Management. For more details, please refer to the Plan.	BFF PHH S		BFF PHH S	
	W MA A C		W MA A C	
	CH L		CH L	

#### Commentary

The assessment of the Plan's Retail provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

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Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the County, 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.

The SEA process that has been undertaken alongside the preparation of the Plan 2021-2027 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. Many other measures were integrated into the current 2017-2023 Plan through the SEA process for that Plan and have been retained and/or updated – these are also detailed at Section 9. By integrating SEA recommendations into the Plan, Laois County Council is 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.

The provisions in this Chapter of the Plan would contribute towards sustainable development and the protection and management of the environment.

## 8.8.8 Chapter 8: Tourism

	Likely to Improve status of SEOs	Probable <u>Conflict</u> with status of SEOs – unlikely to be mitigated	Mitigated Conflicts	No Likely interaction with status of SEOs
Provisions of this Chapter comprise those relating to Tourism. For more details, please refer to the Plan.	BFF PHH S		BFF PHH S	
	W MA A C		W MA A C	İ
	CH L		CH L	İ

#### Commentary

The assessment of the Plan's Tourism provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the County, 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.

This Chapter contributes towards the provision of land use activities and developments relating to tourism – and would be likely to contribute towards an increase in the number and dwell time of visitors and associated potential adverse effects. Such effects would include in-combination effects arising from services and infrastructure to service development, including tourism. Examples may include developments/operation of developments relating to water services, transport, energy, access or accommodation. The mitigation of potential adverse effects arising would be contributed towards by Plan provisions including those relating to infrastructure capacity, visitor management, green infrastructure and ecosystem services.

The SEA process that has been undertaken alongside the preparation of the Plan 2021-2027 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. Many other measures were integrated into the current 2017-2023 Plan through the SEA process for that Plan and have been retained and/or updated – these are also detailed at Section 9. By integrating SEA recommendations into the Plan, Laois County Council is 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.

The provisions in this Chapter of the Plan would contribute towards sustainable development and the protection and management of the environment.

Refer also to further commentary on green infrastructure under Section 8.8.11 "Chapter 11: Biodiversity and Natural Heritage". Furthermore, projects would need to be subject to normal planning and environmental assessment processes, as well as complying with the Corridor and Route Selection Process for relevant new infrastructure, as identified by Plan Objective TRANS 15<sup>92</sup> from Chapter 10 Infrastructure.

## 8.8.9 Chapter 9: Rural Laois

	Likely to	Probable Conflict	<u>Mitigated</u>	No Likely
	<u>Improve</u>	with status of SEOs	Conflicts	interaction
	status of	<ul> <li>unlikely to be</li> </ul>		with status
	SEOs	mitigated		of SEOs
Provisions of this Chapter comprise those relating to Rural Laois. For more details, please refer to the Plan.	BFF PHH		BFF PHH S	
	S W MA A		W MA A C	
	C CH L		CH L	

#### Commentary

The assessment of the Plan's "Rural Laois" provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the County, in combination with other Plan provisions and other plans, programmes, strategies, etc. With regard to rural areas, the RSES sets out a number of Regional Policy objectives which include (RPO 4.84) supporting the rural economy and initiatives in relation to diversification, agri-business, rural tourism and renewable energy so as to sustain the employment opportunities in rural areas. It also supports the longer-term strategic planning for the industrial peatland areas. 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.

Many of the "Rural Laois" provisions are essential to the sustenance of rural populations and associated existing sustainable rural management practices, which can often sustain biodiversity.

Agriculture is essential to the sustenance of rural populations and associated existing sustainable rural management practices which can often sustain biodiversity. Agriculture is however a source of waste and emissions of ammonia from agricultural activities (e.g. manure handling, storage and spreading) and the production of secondary inorganic particulate matter can have significant effects on water, soil, water, biodiversity and human health.

Forestry and access to forestry for amenity would contribute towards the sustenance of rural populations and can improve the biodiversity value of the countryside. Depending on how it is developed, forestry has the potential to adversely affect various environmental components including biodiversity and flora and fauna, water and human health, the landscape.

An extractive industry is essential for sustainable development however it presents the potential for significant adverse environmental effects to arise with regard to all environmental components, if unmitigated.

The SEA process that has been undertaken alongside the preparation of the Plan 2021-2027 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. Many other measures were integrated into the current 2017-2023 Plan through the SEA process for that Plan and have been retained and/or updated – these are also detailed at Section 9. By integrating SEA recommendations into the Plan, Laois County Council is 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.

The provisions in this Chapter of the Plan would contribute towards sustainable development and the protection and management of the environment.

<sup>&</sup>lt;sup>92</sup> It is a Policy Objective that where projects for new roads or other linear projects, identified under Sections 8, 10.1.3.5, 10.1.7 and 11, 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: Stage 1 – Route Corridor Identification, Evaluation and Selection, Evaluation and Selection.

# 8.8.10 Chapter 10: Infrastructure

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs – unlikely to be mitigated	Mitigated Conflicts	No Likely interaction with status of SEOs
Provisions of this Chapter comprise those relating to Infrastructure. For more details, please refer to the Plan.	BFF PHH S W MA A C CH L		BFF PHH S W MA A C CH L	

#### Commentary:

The assessment of the Plan's Infrastructure provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the County, 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.

This Chapter contributes towards the provision of land use activities and developments relating to tourism – and would be likely to contribute towards an increase in the number and dwell time of visitors and associated potential adverse effects. Such effects would include in-combination effects arising from services and infrastructure to service development, including tourism. Examples may include developments/operation of developments relating to water services, transport, energy, access or accommodation. The mitigation of potential adverse effects arising would be contributed towards by Plan provisions including those relating to infrastructure capacity, visitor management, green infrastructure and ecosystem services.

Many of the provisions in this Chapter 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 facilitation of journeys by car, in particular, would give rise to emissions to air. The Plan references various projects that are provided for by higher level plans and programmes e.g. Local Transport Plan for Portlaoise and delivery of a strategic economic zone within Portlaoise. Projects would need to be subject to normal planning and environmental assessment processes, as well as complying with the Corridor and Route Selection Process for relevant new infrastructure, as identified by Plan Objective TRANS 15<sup>93</sup>. Refer also to further commentary on green infrastructure under Section 8.8.11 "Chapter 11: Biodiversity and Natural Heritage".

Provisions relating to water supply, wastewater and surface water management 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.

Provisions relating to the management of flood risk and surface water drainage would benefit the protection 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. Potential adverse effects will be mitigated both by measures which have been integrated into the Plan (including those identified at Section 9 of this report) and by measures arising from lower tier assessments.

Waste Management provisions incorporate circular economy principles that are supported in the RSES through RPO 10.25 "Development plans shall identify how waste will be reduced, in line with the principles of the circular economy, facilitating the use of materials at their highest value for as long as possible and how remaining quantums of waste will be managed and shall promote the inclusion in developments of adequate and easily accessible storage space that supports the separate collection of dry recyclables and food and shall take account of the requirements of the Eastern and Midlands Region Waste Management Plan."

The primary purpose of many of the Policy Objectives is to contribute towards sustainable development and the protection and management of the environment (for example, Water Services, Waste Management, Water Quality, Air Quality, Noise Pollution, Soil Quality and COMAH Policy Objectives).

<sup>93</sup> It is a Policy Objective that where projects for new roads or other linear projects, identified under Sections 8, 10.1.3.5, 10.1.7 and 11, 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: Stage 1 – Route Corridor Identification, Evaluation and Selection and Stage 2 – Route Identification, Evaluation and Selection.

The SEA process that has been undertaken alongside the preparation of the Plan 2021-2027 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. Many other measures were integrated into the current 2017-2023 Plan through the SEA process for that Plan and have been retained and/or updated – these are also detailed at Section 9. By integrating SEA recommendations into the Plan, Laois County Council is 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.

# 8.8.11 Chapter 11: Biodiversity and Natural Heritage

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs – unlikely to be mitigated	Mitigated Conflicts	No Likely interaction with status of SEOs
Provisions of this Chapter comprise those relating to Biodiversity and Natural Heritage. For more details, please refer to the Plan.	BFF PHH		BFF PHH S	
	S W MA A		W MA A C	1
	C CH L		CH L	

#### Commentary

The assessment of the Plan's Biodiversity and Natural Heritage provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the County, 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.

The focus of most of the provisions in this Chapter is the protection and management of the County's natural heritage (including biodiversity, soil and landscape).

The development of new and existing greenways, blueways, peatways, trails and walking and cycling routes, including those between County Laois, adjoining counties and beyond 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 these projects, 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. Potential adverse effects would be mitigated both by measures which have been integrated into the Plan which provide for and contribute towards environmental protection, environmental management and sustainable development (including those identified at Section 9 of this report) and by measures arising from lower tier assessments (including those for the preparation of lower tier plans and projects). Furthermore, projects would need to be subject to normal planning and environmental assessment processes, as well as complying with the Corridor and Route Selection Process for relevant new infrastructure, as identified by Plan Objective TRANS 15<sup>94</sup> from Chapter 10 Infrastructure, as identified by Plan Protection and management of biodiversity, the protection of cultural heritage and the protection of protected landscape sensitivities.

The SEA process that has been undertaken alongside the preparation of the Plan 2021-2027 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. Many other measures were integrated into the current 2017-2023 Plan through the SEA process for that Plan and have been retained and/or updated – these are also detailed at Section 9. By integrating SEA recommendations into the Plan, Laois County Council is 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.

<sup>94</sup> It is a Policy Objective that where projects for new roads or other linear projects, identified under Sections 8, 10.1.3.5, 10.1.7 and 11, 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: Stage 1 – Route Corridor Identification, Evaluation and Selection and Stage 2 – Route Identification, Evaluation and Selection.

# 8.8.12 Chapter 12: Built and Cultural Heritage

	Likely to Improve status of SEOs	Probable <u>Conflict</u> with status of SEOs – unlikely to be mitigated	Mitigated Conflicts	No Likely interaction with status of SEOs
Provisions of this Chapter comprise those relating to Built and Cultural Heritage. For more details, please refer to the Plan.	BFF PHH S		BFF PHH S	
	W MA A C		W MA A C	
	CH L		CH L	

#### Commentary

The assessment of the Plan's Built and Cultural Heritage provisions against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the County, 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.

The focus of most of the provisions in this Chapter is the protection and management of the County's built heritage (including archaeological heritage and architectural heritage).

The SEA process that has been undertaken alongside the preparation of the Plan 2021-2027 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. Many other measures were integrated into the current 2017-2023 Plan through the SEA process for that Plan and have been retained and/or updated – these are also detailed at Section 9. By integrating SEA recommendations into the Plan, Laois County Council is 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.

# 8.8.13 Chapter 13: General Location and Pattern of Development

	Likely to Improve status of SEOs	Probable <u>Conflict</u> with status of SEOs – unlikely to be mitigated	Mitigated Conflicts	No Likely interaction with status of SEOs
Provisions of this Chapter comprise those relating to General Location and Pattern of Development. For more details, please refer to the Plan.	BFF PHH S		BFF PHH S	
	W MA A C		W MA A C	
	CH L		CH L	

The assessment of this Chapter against the Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

Land Use Zoning objectives are applied to various settlements under Volume 2 – see Section 8.8.15 below.

The SEA process that has been undertaken alongside the preparation of the Plan 2021-2027 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. Many other measures were integrated into the current 2017-2023 Plan through the SEA process for that Plan and have been retained and/or updated – these are also detailed at Section 9. By integrating SEA recommendations into the Plan, Laois County Council is 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.

# 8.8.14 Chapter 14: Implementation and Monitoring

	Likely to	Probable Conflict	<u>Mitigated</u>	No Likely
	<u>Improve</u>	with status of	Conflicts	interaction
	status of	SEOs – unlikely to		with status
	SEOs	be mitigated		of SEOs
Provisions of this Chapter comprise those relating to Implementation and Monitoring. For more details, please refer to the Plan.	BFF PHH S		BFF PHH S	
	W MA A C		W MA A C	İ
	CH L		CH L	i

The assessment of this Chapter against the Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Implementing the Plan will help to direct incompatible development away from the most sensitive areas in the County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

SEA Monitoring Programme for monitoring the likely significant effects of implementing the Plan, including those if unmitigated, is detailed at Section 10 of this SEA Environmental Report.

The SEA process that has been undertaken alongside the preparation of the Plan 2021-2027 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. Many other measures were integrated into the current 2017-2023 Plan through the SEA process for that Plan and have been retained and/or updated – these are also detailed at Section 9. By integrating SEA recommendations into the Plan, Laois County Council is 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.

# 8.8.15 Volume 2: Settlement Strategy

	Likely to Improve status of SEOs	Probable Conflict with status of SEOs – unlikely to be mitigated	Mitigated Conflicts	No Likely interaction with status of SEOs
Volume 2 includes written objectives and land use zoning (for detail refer to Volume 2) for the settlements of Portlaoise, Abbeyleix, Mountmellick, Mountrath, Stradbally, Clonalsee, Ballinakill, Borris in Ossory, Ballyinan, Durrow, Arles, Ballcolla, Ballybrittas, Ballyroan, Camross, Castletown, Clough, Coolrain, Cullahill, Emo, Errill, Kileen, Killeshin, Killenard, Newtown Doonane, Rathdowney, Rosenallis, The Swan, Timahoe and Vicarstown. Volume 2 notes that a number of Local Area Plans will be prepared in the implementation of the County Development Plan, including plans for Graiguecullen and Portarlington.	BFF PHH S W MA A C CH L		BFF PHH S W MA A C CH L	

#### Commentary

The assessment of Volume 2 of the Plan against Strategic Environmental Objectives (SEOs BFF, PHH, S, W, MA, A, C, CH and L) is consistent with the:

- Environmental effects detailed under subsections 8.2 to 8.7 of this report; and
- Assessments of the selected alternatives for the Plan provided at Section 7 of this report.

Environmental considerations were integrated into the land use zoning for the County's settlements through an interdisciplinary approach. 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 and Eastern and Midland RSES. The detailed Plan preparation process undertaken by the Planning Department combined with specialist input from the SFRA process facilitated zoning that avoids inappropriate development being permitted in areas of high flood risk. Various provisions have been inserted into the Plan which provide for flood risk management at project level. Also taken into account were environmental sensitivities relating to ecology, cultural heritage, landscape and water, as well as the overlay mapping of environmental sensitivities.

#### SEA Environmental Report for the Laois County Development Plan 2021-2027

Where alternatives in relation to the application of land use zoning were identified by the Planning Team as being available (for Portlaoise, Abbeyleix, Mountmellick, Mountrath, Stradbally, Borris in Ossory, Ballyinan, Durrow, Ballcolla, Ballybrittas Ballyroan, Clough, Cullahill, Emo, Killeshin, Rathdowney and Timahoe), these were assessed by the SEA process and informed the selection of the Plan (see Sections 6 and 7 of this report).

The land use zoning provided for within the Plan, in combination with other parts of the Plan and other plans and programmes in force, will help to direct incompatible development away from the most sensitive areas in the County and to focus on directing: compact, sustainable development within and adjacent to the existing built-up footprint; and sustainable development elsewhere, including in the rural area of the County. Development of areas within and adjacent to the existing built-up footprint, which are generally more robust, better serviced and better connected, will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable the County's settlements to become more desirable places to live – so that they can sustainably accommodate new residents and maintain and improve services to existing and future communities. Compatible sustainable development in the County's sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

As identified in Volume 2, 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. The written provisions of Volume 2 were informed by the SEA process.

The provisions in this Chapter of the Plan would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities, and sustainable development of the County, 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.

The SEA process that has been undertaken alongside the preparation of the Plan 2021-2027 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. Many other measures were integrated into the current 2017-2023 Plan through the SEA process for that Plan and have been retained and/or updated – these are also detailed at Section 9. By integrating SEA recommendations into the Plan, Laois County Council is 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 Council through the SEA, Appropriate Assessment (AA) and Strategic Flood Risk Assessment (SFRA) processes. By integrating all related recommendations into the Plan, the Council 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 the:

- Strategic work undertaken by the Council to ensure contribution towards environmental protection and sustainable development;
- Considering alternatives for the Plan;
- Integration of environmental considerations into zoning provisions of the Plan; and
- Integration of individual SEA, AA and SFRA provisions into the text of the Plan.

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

Far in advance of both the submission of the pre-Draft Plan to the Elected Members for approval and the placing of the Draft Plan on public display, Laois County Council undertook various works in order to inform the preparation of the Plan.

The findings of this strategic work have been integrated into the Plan and will contribute towards both environmental protection and management and sustainable development within the County.

Strategic work undertaken by the Council includes background work in relation to Plan Strategies and other provisions for a variety of sectors, including:

- Strategic Environmental Assessment (SEA);
- Appropriate Assessment (AA);
- Strategic Flood Risk Assessment (SFRA);
- Core Strategy;
- Economic Strategy;
- Settlement Strategy;
- Housing Strategy;
- Rural Housing Design Guidelines;
- Retail Strategy;
- Landscape Character Assessment;
- Climate Action and Sustainable mobility provisions;
- Infrastructure including Green Infrastructure provisions; and
- Record of Protected Structures and Architectural Conservation Areas.

#### 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, the Council considered a number of alternatives for the Plan.

These alternatives were assessed by the SEA process (see Section 7) and the findings of this assessment informed the selection of preferred alternatives, 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 were integrated into the Plan's zoning through an interdisciplinary approach.

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 and Eastern and Midland RSES.

The detailed Plan preparation process undertaken by the Planning Department combined with specialist input from the SFRA process sought to facilitate zoning that avoids inappropriate development being permitted in areas of high flood risk. Various provisions have been inserted into the Plan that provide for flood risk management at project level.

Also taken into account were environmental sensitivities relating to ecology, cultural heritage, landscape and water, as well as the overlay mapping of environmental sensitivities.

# 9.5 Integration of individual SEA, AA and SFRA provisions into the text of the Plan

Various provisions have been integrated into the text of the 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. Some of these measures were integrated into the current 2017-2023 Plan through the SEA and associated AA and SFRA processes for that Plan and have been retained and/or updated.

Some of the key text integrated into the Plan as a direct result of SEA and AA recommendations for the Draft Plan 2021-2027 are detailed on Table 9.2

# SEA Environmental Report for the Laois County Development Plan 2021-2027 **Table 9.1 Integration of Environmental Considerations into the Plan**

Topic	Potentially Significant	Including the following Plan provisions:
·	Adverse Effect, if Unmitigated	
All	Various	Overarching Core Strategy Policy Objectives
		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
All	Various	Ecosystems Approach Policy Objectives
		CS 35
		Promote an Ecosystem Services Approach in the preparation of lower-level plans, strategies and Development Management 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
All	Various	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:
		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
All	Various	<ul> <li>Impacts on surface waters as a result of sedimentation.</li> <li>Volume 2 Environmental considerations and imitations in the types of uses</li> </ul>
All	Various	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.
All	Various	Various Development Management Standards
Biodiversity	Arising from both	CS 20
and flora and	construction and	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
fauna	operation of development and associated	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;
	infrastructure:	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;
	Loss of/damage to	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:
	biodiversity in	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
	designated sites	compliance with the Habitats Directive, and subsequent assessment as required;
	(including European	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
	Sites and Wildlife Sites)	with open space planning or tourism is subject to Appropriate Assessment Screening in compliance with the Habitats Directive, and subsequent assessment as required
	and Annexed habitats	NRPO 7 Investigate the feasibility of the following specific recreation and leisure projects subject to the Habitats and Birds Directives:  Support the ongoing development of an athletic track, including provision of dressing rooms and tartan resurface in Portlagise:
	and species, listed species, ecological	<ul> <li>Support the ongoing development of an athletic track, including provision of dressing rooms and tartan resurface in Portlaoise;</li> <li>Investigate and facilitate where appropriate the provision of strategic greenways throughout the county.</li> </ul>
	connectivity and non-	• Facilitate where appropriate the provision of additional handball facilities throughout the county.
	designated habitats;	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
	and disturbance to	Habitats and Birds Directives and the proper planning and development of the areas
	biodiversity and flora	ABT 2
	and fauna;	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
	Habitat loss,	Coillte, Mountmellick -Portlaoise - Abbeyleix Greenway (and potential extensions onto Portarlington to connect with the Offaly Greenway network) and Durrow Green Network Cycle Trail in co-
	fragmentation and	operation with relevant stakeholders including Durrow Development Forum.
	deterioration, including patch size and edge	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
	effects; and	Company and the National Trails Office, subject to compliance with the Habitats and Birds Directive
	Disturbance (e.g. due)	ABT 6
	to noise and lighting	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
	along transport	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
	corridors) and	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
	displacement of	
	protected species such	
	as birds and bats.	

Topic	Potentially Significant Adverse Effect, if Unmitigated	Including the following Plan provisions:
		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 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  Support the development and marketing of the Barrow Blueway and facilitate related commercial opportunities in Vicarstown, Portarlington, Graiguecullen and Portlaoise, subject to compliance with the Habitats Directive
		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  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.  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 RL 2 Facilitate the development of agriculture while ensuring that natural waters, wildlife habitats and conservation areas are protected from pollution. 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;
		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 Direction and subsequent assessment as required, applicants for planning permission shall have regard to the GSI-ICF Quarrying Guidelines;  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; 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: 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
		TRANS 51 Establish a new Woodenbridge Walking Trail linking Durrow and Ballacolla, subject to the Habitats' Directive  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.
		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
		LCA 18 Preserve riverside historic features and their landscape settings. Conserve valuable habitats focused on and around river corridors and estuaries including European and national designations  LCA 19 Recognise the potential constraints on development created by river flood plains and the value of these flood plains as increasingly rare habitats  LCA 24 Conserve valuable habitats including any European and national designations  Reliance of the potential constraints on development created by river flood plains and the value of these flood plains as increasingly rare habitats  Conserve valuable habitats including any European and national designations
		Policy Objectives for Biodiversity and Designated Sites  BNH 1 Protect, conserve, and seek to enhance the county's biodiversity and ecological connectivity  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.
		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.  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.  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) 95. Screening for AAs and AAs undertaken shall take into account invasive species as relevant.

<sup>95</sup> 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. CAAS for Laois County Council 123

Topic	Potentially Significant Adverse Effect, if Unmitigated	Including the following Plan provisions:
		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.
		BNH 7 Protect Natural Heritage Areas (NHA) from developments that would adversely affect their special interests.  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".
		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.
		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  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).  Policy Objectives for Trees, Woodlands and Hedgerows
		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.  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  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 ad promote biodiversity
		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
		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.  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  Policy Objectives for Waterways and Wetlands
		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.
		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 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.  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.  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.  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.  BNH 37 Protect the Nore Pearl Mussel through the measures set out in the Freshwater Pearl Mussel Nore Sub-Basin Management Plan (2009).
		BNH 38 Protect the migration of fish in the River Barrow Nore SAC from high risk barriers such weirs and bridge sills.  Policy Objectives for Peatlands  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.  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.  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,
		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.
		BNH 44 Support the designation of a National Park for the peatlands area in the Midlands in conjunction with adjoining Local Authorities.  BNH 45 Undertake a feasibility study to identify peatways, where appropriate and examine the tourist potential of same such as a peatway link from Portarlington to the Grand Canal and River Barrow Greenway.
		BNH 46 Support relevant agencies to provide for the future sustainable and environmentally sensitive use of large industrial peatlands at Cuil Na Mona.  Light Pollution Policy Objectives

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Topic	Potentially Significant Adverse Effect, if	Including the following Plan provisions:
	Unmitigated	
		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 ES 50
		Encourage the maintenance of dark skies in rural areas and limit light pollution in urban and rural areas ES 51
		Encourage the maintenance of dark skies in rural areas and limit light pollution in urban and rural areas  Policy Objectives for Green Infrastructure
		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.  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  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.  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  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.
Population and	Potential adverse	BNH 24 To identify and map Green Infrastructure assets and sites of local biodiversity value over the lifetime of the Plan.  Also see measures under other environmental components including Soil, Water and Air and Climatic Factors.
human health	effects arising from	COMAH Policy Objectives
	flood events.	ES 55
	<ul> <li>Potential interactions if</li> </ul>	Ensure that any COMAH sites in County Laois are managed in accordance with the provisions of the Seveso III Directive
	effects arising from	ES 56
	environmental vectors.	Have regard to the following in assessing applications for new developments (including extensions);  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
		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
Soil	Potential adverse	Also see measures under other environmental components including Water.
	effects on the	ES 32
	hydrogeological and	Control intensive agriculture development e.g. intensive pig unit productions in order to minimise their impact on soil and ground water quality.
	ecological function of	Developments involving intensive pig units shall be required to show compliance with the following requirements:
	the soil resource, including as a result of	a) The developer shall demonstrate that all lands available are suitable for landspreading of manures and have satisfactory Nutrient Management Plans for such lands b) Satisfactory arrangements for storage, management and spreading of slurries are provided.
	development on	Soil Quality Policy Objectives
	contaminated lands.	ES 52
	<ul> <li>Potential for riverbank erosion.</li> </ul>	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
		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
		Protect geological NHAs as they become designated and notified to the Local Authority, during the lifetime of the Plan;
		Promote and encourage, where practicable and when not in conflict with ownership rights, access to geological and geomorphological features
		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 geotourism initiatives
		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 stheir 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

SEA Environmental Report for the Laois County Development Plan 2021-2027

Tonio	Detentially Ciamificant	SEA Environmental Report for the Laois County Development Plan 2021-2027
Topic	Potentially Significant Adverse Effect, if Unmitigated	Including the following Plan provisions:
	3	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.
Water	<ul> <li>Potential adverse</li> </ul>	Also see measures under other environmental components including Soil and Material Assets.
	effects upon the status	ABT 6
	of water bodies and	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
	entries to the WFD	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
	Register of Protected	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
	Areas (ecological and	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
	human value), arising	public water supply and their contributing catchments and to ensure that good water quality is sustained in all public water supplies.
	from changes in	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)
	quality, flow and/or	Regulations 2014, as amended and as approved by the EPA.
	morphology.  • Increase in flood risk	Water Quality Policy Objectives ES 17
	and associated effects	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
	associated with flood	appropriate
	events.	ES 18
	events.	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.
		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'
		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
		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.
		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.  Groundwater Protection Policy Objectives
		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
		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
		ES 25
		Assist and co-operate with the EPA, LAWPRO and IW in the continued implementation of the EU Water Framework Directive
		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).
		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
		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;

Topic	Potentially Significant	Including the following Plan provisions:
	Adverse Effect, if Unmitigated	
	Offinitigated	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 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  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:  a) A dwelling for a full-time farmer;
		b) An existing inhabited dwelling in need of replacement; c) A second family dwelling on a farm where this is required for management of the farm Permission may be granted in the above instances subject to the following stipulations:
		a) That an alternative site outside the Extreme vulnerability Inner Protection Area is not available
		b) The existing water quality of the source is not subject to any significant nitrate and /or microbiological contamination c) The existing water quality of the groundwater source is in compliance with the environmental objectives set out in relevant River Basin District Management 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:
		a) The developer shall demonstrate that all lands available are suitable for landspreading of manures and have satisfactory Nutrient Management Plans for such lands b) Satisfactory arrangements for storage, management and spreading of slurries are provided.  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. ES 34
		Consult as necessary with other competent authorities with responsibility for environmental management 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 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 ES 37
		Promote public awareness of water quality issues and the measures required to protect both surface water and groundwater bodies
		Flood Risk Management Policy Objectives 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)
		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.  FRM 3 Support the implementation of recommendations in the CFRAM Programme to ensure that flood risk management policies and infrastructure are progressively implemented.  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.  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.  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.  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.  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.  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.  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. 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. 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; FRM 13 Ensure new development does not increase flood risk elsewhere, including that which may arise from surface water runoff;
		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

Topic	Potentially Significant Adverse Effect, if Unmitigated	Including the following Plan provisions:
		Surface Water and Drainage Policy Objectives 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. SWD 2 Implement policies contained in the Greater Dublin Strategic Drainage Study (GDSDS) in relation to SUDS and climate change. 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. 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. 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. SWD 6 Ensure appropriate maintenance of surface water drainage infrastructure to avoid flood risk. 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; 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.
Air and	Potential conflict	Air Quality Policy Objectives
Climatic Factors	between development under the Plan and aiming to reduce carbon emissions in line with local, national and European	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). ES 39 Encourage more sustainable modes of transport and a more balanced modal spilt to reduce carbon emissions
	environmental	ES 40
	<ul><li>objectives.</li><li>Potential conflicts</li></ul>	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 ES 41
	<ul> <li>Potential conflicts between transport</li> </ul>	Require developments of a certain nature to carry out assessments of the impact of the development on air quality
	emissions, including those from cars, and air quality.	ES 42 Ensure the implementation of the radon prevention measures for new homes as contained within the Building Regulations  Noise Pollution Policy Objectives  ES 42
	Potential conflicts between increased frequency of noise	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  ES 43
	emissions and protection of sensitive	Support the implementation of the Noise Directive 2002/49/EC and associated Environmental Noise Regulations 2006 ES 44
	receptors.	Ensure that relevant planning applications comply with the provisions of any Noise Action Plan or noise maps relating to the area.  ES 45
	<ul> <li>Potential conflicts with climate adaptation measures including</li> </ul>	Restrict development proposals causing noise pollution in excess of best practice standards ES 46
	those relating to flood risk management.	Regulate and control activities likely to give rise to excessive noise, other than those activities which are regulated by the EPA. ES 47
	risk management.	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.  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
		Climatic Factors Refer to Section 8.6 "Climate Action Targets and Plan Responses".
Material	Failure to provide	Also see measures under other environmental components including Population and Human Health, Cultural Heritage, Soil, Water, Air and various Land Use and Phasing provisions from the Plan.
Assets	adequate and	Public Water Supply Policy Objectives
	appropriate waste	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
	water treatment (water services infrastructure	human health 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
	and capacity ensures	deliver on the following priority schemes:
	the mitigation of	Portlaoise PWS – Bring into production the 3 non-producing Boreholes in Coolbanagher and increase Storage Capacity to provide 24 hours emergency supply;
	potential conflicts).	Portarlington PWS – Bring into Production Borehole(s) and Treatment Plant in the Doolough Wellfield and increase Storage Capacity to provide 24 hours emergency supply and
	<ul> <li>Failure to adequately treat surface water run-</li> </ul>	Swan PWS – Bring into Production the Borehole and Treatment Plant at Tollerton.

Topic Potentially Significant Adverse Effect, if Unmitigated	Including the following Plan provisions:
Adverse Effect, if Unmitigated  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	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.  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.  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  WS 6 Work with IW to minimise wastage of water supply by requiring existing and new developments to incorporate water conservation measures  WS 7 Promote and encourage the harvesting of rainwater to meet non-potable water needs  WS 8 Implement Energy Efficiency solutions in Water Systems;  Encourage industrial and commercial developments with small private water supplies to connect to the public water schemes where technically and financially feasible.  WS 10 Ensure Water Conservation through the following actions:  • Roll-out further Mains Replacement programmes:  • Continue with validation of District Metre Areas(DMAs)  • Carry out focused Find and Fix Programmes to achieve target volumetric reductions in accordance with IWs targets.
conflicts).  Increases in waste levels.  Potential impacts upon public assets and infrastructure.  Interactions between agriculture and soil, water, biodiversity and human health including phosphorous and nitrogen deposition as a result of agricultural activities and the production of secondary inorganic particulate matter.	WS11 Work in accordance with IWI.A MOU and Protocol and an agreed programme with LA planning to take in charge private housing estates Water and transfer assets to IW.  WS 12 Work in accordance with IWI.A 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.  WS 13 Secure the future sustainability of Laols County Council's INAB Accredited Laboratory and enhance the accreditation status of the Laboratory in order to develop the Laboratory into neof 4 Regional Local Authority Accredited Laboratories nationally.  Public Wastewater Objectives  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 foliowing actions:  Measure 1: Facilitate Growth: Wastewater Growth Programme:  Measure 2: Network and Treatment Programme:  Network of Portainable of Programmes:  Roll-out improvements to network in Portlaoise WN Network as identified in the Portlaoise Portlaoise WN Network and Treatment Programmes:  Network of Portainable of Programmes:  Network of Portainable of Programmes and Willages Growth 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.  Most 15 Work in conjunction with Irish Water and with the DHPIC during the lifetime of the plan for the provision 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

Topic	Potentially Significant Adverse Effect, if Unmitigated	Including the following Plan provisions:
	- Jimingatea	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.
		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.
		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.
		WS 24 Ensuring that rural water services investment decisions are aligned with the broad strategic aims of Project Ireland 2040: National Planning Framework and Improve the resilience of rural water supplies by supporting the implementation OF ing the following measures
		a) New Group Water Schemes and extensions
		b) Transition of Group Water and Group Sewerage schemes to the Public (Irish Water) Water Sector
		c) Community Connections (Water & Wastewater) Networks d) Innovation and Research.
		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 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
		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.
		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).  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
		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.
		Waste Recovery & Disposal Policy Objectives
		ES 1
		Implement and support the strategic objectives of the Waste Action Plan for a Circular Economy – Ireland's National Waste Policy 2020-2025.  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.
		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.
		Waste Management Enforcement Policy Objectives ES 4
		Implement the provisions of the Waste Management Act, 1996, as amended and associated Waste Regulations.
		ES 5 Investigate and take appropriate legal action against those involved in unauthorised waste activities.
		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.
		ES 7 Implement, complete and report to the EPA on the annual agreed Recommended Minimum Criteria for Environmental Inspections (RMCEI).
		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)
1		Regulations 2015, the Waste Management (Food Waste) Regulations 2009, the Waste Framework Directive Regulations, 2011 and other relevant legislation.  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
1		necessary to protect the environment and local amenities. ES 10
1		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
1		facilities with WFPs & CORs.
		ES 11  Paguiro 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
		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.
1		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.

Topic	Potentially Significant	Including the following Plan provisions:
	Adverse Effect, if Unmitigated	
	-	ES 13
		Encourage best environmental practice in all agricultural, industry, business and local authority activities.  Civic Amenity Facilities & Bring Bank Policy Objectives
		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.  ES 15
		Develop a 10-year roadmap for the strategic planning and development of the Kyletalesha Transfer Station and Civic Amenity Site.  ES 16
		Develop the Bring Bank Regional Contract to improve the quality of service and frequency of collection.  RL 2 Facilitate the development of agriculture while ensuring that natural waters, wildlife habitats and conservation areas are protected from pollution.
Cultural	Potential effects on	Policy Objectives for Archaeological Heritage
Heritage	protected and unknown archaeology and	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,
	protected architecture arising from	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.  AH 2
	construction and operation activities.	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.  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.  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.
		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.  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.  AH 7
		Require visual impact statements for developments within the area around the Rock of Dunamaise in order to assess the potential impacts of development in the area.  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 .
		AH 9 Maximise the potential of Dunrally Viking Fort, as a heritage/cultural and tourism site.
		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.
		Policy Objectives for Protected Structures
		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.
		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.
		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:  a) Sensitively sited and designed;
		<ul><li>b) Compatible with the special character;</li><li>c) Views of principal elevations of the protected structures are not obscured or negatively impacted;</li></ul>
		d) Of a premium quality of design and appropriate in terms of the proposed scale, mass, height, density, layout, and materials

Topic	Potentially Significant Adverse Effect, if Unmitigated	Including the following Plan provisions:
		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.
		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.  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.
		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.
		PS 7 Review and update the Record of Protected Structures on an on-going basis and to make additions and deletions as appropriate
		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  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
		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  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.
		Policy Objectives for ACA
		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.  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 substantial benefits for the community which would decisively outweigh the loss
		resulting from demolition, would demolition of this nature be considered.
		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 Portarlington, (the latter in collaboration within Offaly County Council).
		Policy Objectives for Vernacular Structures  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;
		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.
		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.  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.
		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.  VS 5 Develop and publish quidelines on the conservation and appropriate reuse of Local Authority Cottages and similar vernacular structures.
		VS 6 Have regard, where appropriate, to quidance 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.
		Policy Objectives for Historic Gardens, Country Houses and Demesnes
		CH 1 Ensure that new development will not adversely affect the site, setting or views to and from historic gardens and designed landscapes.
		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.
		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.
		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  Pelicu Chicativa for Archaelegical Heritage
		Policy Objectives for Archaeological Heritage  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.
		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.  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.
		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.  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, quardianship or
		control of the Council and/or the State.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Including the following Plan provisions:
		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.  AH 7 Require visual impact statements for developments within the area around the Rock of Dunamaise in order to assess the potential impacts of development in the area.  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 .  AH 9 Maximise the potential of Dunrally Viking Fort, as a heritage/cultural and tourism site.  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.
Landscape	Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.	Policy Objectives for Landscape Character Areas LCA 1 sure 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 choics of location of proposed development in the landscape will also bis critical considerations.  LCA 2 received and enhance the country's landscape, by ensuring that development treatines, protects and, where necessary, enhances the appearance and character of in the classification of the conserve valuable habitat including any European and National Designations.  LCA 2 sceek to minimise the local landscape plan and tharacter of an area, whilst providing for future development.  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 repart, in locations where the 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 Pality contained in Chapter 4  Policy Objectives for Hills and Uplands Areas and Mountain Areas  LCA 5 Escrib 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 uplant Valsa, when vivoed from arias nearby, scenic routes, desponds and settlements.  LCA 6 Escrib that development will not have a disproportionate visual impact on the surrounding environment as seen from relevant scenic uplant Valsa, when vivoed from a raise nearby, scenic routes, desponds and settlements.  LCA 7 Escellitate, where appropriate, developments that have a functional and locational requirement to be situated on steep or elevated sit
		same time promoting high environmental standards and supporting Biodiversity objectives

SEA Environmental Report for the Laois County Development Plan 2021-2027

Topic	Potentially Significant Adverse Effect, if Unmitigated	Including the following Plan provisions:
		LCA 26 Support the restoration of peatlands on suitable sites 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  Policy Objectives for Urban Fringe Areas 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 LCA 29 Define the urban fringe with planting of native species and mixed woodland to tie into existing rural landscape  Policy Objectives for Rolling Hill Areas LCA 30 Maintain the visual integrity of rolling hill areas which have retained an upland character 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 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  Policy Objectives for Views and Prospects 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.  SV 2
		Review and update all Scenic Routes and Views in the county during the lifetime of the Plan.

Table 9.2 identifies some of the key text that was integrated into the Plan as a direct result of SEA and AA recommendations.

# Table 9.2 Selection of Recommendations from the SEA and AA processes

Chapter	Recommended Text Integrated into the Plan
	Normal black text like this was already part of the emerging Draft Plan; Green text like this was proposed to be added to the Plan; Red strikethrough text like this was proposed to be deleted from the Plan
	<ul> <li>Reference to "Natura 2000 sites" changed to "European sites" throughout the document</li> <li>Caveats added under ABT 3, NH 2, NH 3 and NH 1 to ensure consistency with Habitats and/or Birds Directives.</li> </ul>
Chapter 1 Introduction	1.4.1 Strategic Environmental Assessment [SEA] A Strategic Environmental Assessment (SEA) is a formal systematic evaluation of the likely significant effects of a proposed plan or programme on the environment. It is carried out in parallel to the preparation of the County Development Plan in accordance with the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004), as amended. The main environmental issues which are considered during this process are as follows: Biodiversity, (flora and fauna); Landscape (geology); Agriculture forestry and sSoils; Population and human health; Water quality; Water quality; Waste management Material and cultural assets: and Climatice factors. The evaluation of the likely environmental consequences of alternative strategies for the accommodation of the future development of County Laois is also part of the SEA Process.  1.4.2 Appropriate Assessment (AA) An Appropriate Assessment is an assessment of the potential effects of a proposed plan on its own or in combination with other plans or projects on one or more European sites Nature 2000 sites (these are Special Protection Areas (SPAs) for birds, Special Areas of Conservation (SACs) for habitats and species). The findings of the assessment must be taken into account by the competent authority namely Laois County Council, in reaching its decision to adopt the County Development Plan 2021 - 2027 - 2027.
Chapter 2 Core Strategy For Co Laois	2.11 Environment and Ecosystems Services Approach

Chapter	Recommended Text Integrated into the Plan		
	Normal black text like this was already part of the emerging Draft Plan; Green text like this was proposed to be added to the Plan; Red strikethrough text like this was proposed to be deleted from the Plan		
	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. The Ecosystems Services Approach followed by the Plan provides a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.		
	Ecosystem Services Approach principles include:  a) Consideration of natural systems - by using knowledge of interactions in nature and how ecosystems function (this has been considered in preparing the Plan including at Chapter 11 "Biodiversity and Natural Heritage")  b) Taking into account of the services that ecosystems provide - including those that underpin social and economic well-being, such as flood and climate regulation (including at Plan Chapter 3 "Climate Action and Energy"), resources for food, fibre or fuel (including at Plan Chapters 3 "Climate Action and Energy" and 9 "Rural Laois"), or recreation, culture and quality of life (including at Plan Chapter 5 "Quality Of Life and Sustainable Communities")  c) Involving people - those who benefit from the ecosystem services and those managing them need to be involved in decisions that affect them. Public consultation has informed the preparation of the Draft Plan which will be further refined before adoption, taking into account submissions/observations made on the Draft Plan during public display.		
	Natural capital consists of renewable and non-renewable resources (e.g. plants, animals, air, water, soils, minerals) which need to be managed. In recognition of this, policy objectives have been integrated into the Plan that will contribute towards 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.  CS 35 Promote an Ecosystem Services Approach in the preparation of lower-level plans, strategies and Development Management CS 36 Contribute, as practicable, towards achievement of the 17 Sustainable Development Goals <sup>96</sup> of the United Nations' 2030 Agenda for Sustainable Development, which came into force in 2016.		
Chapter 3 Climate Action & Energy			
Chapter 8 Tourism	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  TM 18 Ensure the potential environmental effects of a likely increase in tourists/tourism-related traffic volumes in particular locations/along particular routes shall be considered and mitigated as appropriate. Such a consideration should include potential impacts on existing infrastructure (including drinking water, wastewater, waste and transport) resulting from tourism proposals.		

#### <sup>96</sup> Includina:

- Goal 1: End poverty in all its forms everywhere
- Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- Goal 3: Ensure healthy lives and promote well-being for all at all ages
- Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- Goal 5: Achieve gender equality and empower all women and girls
- 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 10: Reduce inequality within and among countries
- 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 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- 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
- Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
- Goal 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development

#### SEA Environmental Report for the Laois County Development Plan 2021-2027

Chapter	Recommended Text Integrated into the Plan
	Normal black text like this was already part of the emerging Draft Plan; Green text like this was proposed to be added to the Plan; Red strikethrough text like this was proposed to be deleted from the Plan
Chapter 10 Infrastructure	TRANS 15 It is a Policy Objective that where projects for new roads or other linear projects, identified under Sections 8, 10.1.3.5, 10.1.7 and 11, 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: Stage 1 – Route Corridor Identification, Evaluation and Selection and Selection and Selection.
	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.
	ES 42 Ensure the implementation of the radon prevention measures for new homes as contained within the Building Regulations.
Chapter 11 Biodiversity And Natural Heritage	11.2.3 National 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. National legislation includes the following: Wildlife Acts 1976 and 2010 (as amended), the Planning and Development Act 2000 (as amended) and associated Regulations, European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018, the Wildlife (Amendment) Act 2000, the European Union (Water Policy) Regulations 2003 (as amended), the European Communities (Environmental Liability) Regulations 2008 (as amended) and the Flora Protection Order 2015.  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.
	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) <sup>97</sup> . Screening for AAs and AAs undertaken shall take into account invasive species as relevant.
	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 15 metres from the waterways edge, subject to site-specific characteristics and —This requirement may be subject to change depending on 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.
Volume 2	Environmental considerations and imitations in the types of uses  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.

<sup>97</sup> Except as provided for in Section 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.

# **Section 10 Monitoring Measure**

### 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 Development Plan in the land use planning hierarchy beneath the Eastern and Midland Regional Spatial and Economic Strategy (RSES), the measures identified in that RSES SEA 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 programmes.

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.

Many of the indicators below relate to more than one of the freshwater and terrestrial environments, for example: indicator B1 'Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive' relates to freshwater and terrestrial habitats and species.

### 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 and the Eastern and Midland RSES, is subject to its own SEA (and associated monitoring) requirements. At lower tiers of the hierarchy, Local Area Plans and individual projects will be subject to their own monitoring requirements as relevant.

In implementing the Monitoring Programme the Council 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 Council would provide monitoring of certain indicators on a *grant of permission*<sup>98</sup> basis. Where significant adverse effects as a result of the

identified effects as a result of a development to be permitted can help to fulfill monitoring requirements.

<sup>&</sup>lt;sup>98</sup> The likely significant effects of development proposals on environmental sensitivities are further determined during the development management process. Documenting any

development to be permitted are identified, such effects could be identified, recorded and used to inform monitoring evaluation.

## 10.4 Reporting

The Council shall, in conjunction with the Regional Assembly and other sources as relevant, implement the monitoring programme as set out on Table 10.1. This will include the preparation of stand-alone SEA Monitoring Reports:

- 1. To accompany the report required of the manager 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 Plan, as required by Article13J(2) of the Planning and Development Regulations 2001 (as amended);
- 2. On the significant environmental effects of implementing the Plan, in advance of the beginning of the review of the next Plan.

Table 10.1 Indicators, Targets, Sources and Remedial Action

Environmental	SEO	Indicators	Targets	Sources	Remedial Action
Biodiversity, Flora and Fauna	BFF	Condition of European sites     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     SEA and AA as relevant for new Council policies, plans, programmes etc.     Status of water quality in the County's water bodies     Compliance of planning permissions with Plan measures providing for the protection of Biodiversity and flora and fauna — see Chapter 11: Biodiversity and Natural Heritage"	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, Local Biodiversity Action Plans     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 Chapter 11: Biodiversity and Natural Heritage"	Department of Culture, Heritage and the Gaeltacht report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive (every 6 years).      Department of Culture, Heritage and the Gaeltacht National Monitoring Report for the Birds Directive under Article 12 (every 3 years)      Internal monitoring of preparation of local land use plans      Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).      Consultations with the NPWS (at monitoring evaluation/reporting - see Section 10.4)	Where condition of European sites is found to be deteriorating this will be investigated with the Regional Assembly and the DCHG (and the DHPLG for water) 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 water bodies are failing to meet at least good status this will be investigated with the DHPLG Water Section, the Regional Assembly, the EPA Catchment Unit and, as relevant, Irish Water 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.
Population and Human Health	РНН	<ul> <li>Implementation of Plan measures relating to the promotion of economic growth as provided for by Chapter 6 "Economic Development"</li> <li>Number of spatial concentrations of health problems arising from environmental factors resulting from development permitted under the Plan</li> <li>Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures</li> <li>Number of spatial plans that include specific green infrastructure mapping</li> </ul>	<ul> <li>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 Chapter 6 "Economic Development"</li> <li>No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan</li> <li>Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures.</li> <li>Implementation of Green Infrastructure</li> </ul>	Internal review of progress on implementing Plan objectives     Consultations with the Health Service Executive and EPA     CSO data     Internal monitoring of preparation of local land use plans	<ul> <li>Where planning applications in key growth towns are rejected due to insufficient capacity in the waste water treatment plant or failure of the waste water treatment plant to meet Emission Limit Values, the Council will contribute towards a response with the Regional Assembly, EPA and Irish Water to achieve the necessary capacity.</li> <li>Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, the DHPLG, DCCAE and NTA to develop a tailored response.</li> </ul>
Soil (and Land)	S	Proportion of population growth occurring on infill and brownfield lands compared to greenfield Volume of contaminated material generated from brownfield and infill Number of AA determinations and environmental assessments undertaken to support applications for brownfield and infill development prior to planning permission	<ul> <li>Maintain built surface cover nationally to below the EU average of 4% as per the NPF.</li> <li>NPF National Policy Objective 3c: Deliver at least 30% of all new homes that are targeted in settlements other than the five Cities and their suburbs, within their existing built-up footprints.</li> </ul>	Environmental Protection Agency (EPA), Geoportal     Internal monitoring of likely significant environmental effects of grants of permission (grant by grant)	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 Council will liaise with the Regional Assembly to establish reasons and coordinate actions to address constraints to doing so.     Compulsory Purchase Order powers     Master-planning of sites

Environmental	SEO	Indicators	Tangets	Sources	Remedial Action
Component	Code		-		
Water	W	Status of water bodies as reported by the EPA Water Monitoring Programme for the WFD     Number of incompatible developments permitted within flood risk areas	<ul> <li>Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status'</li> <li>Implementation of the objectives of the second cycle of the River Basin Management Plan by 2021 (and subsequent iterations as relevant)</li> <li>Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk</li> </ul>	<ul> <li>EPA Monitoring Programme for WFD compliance</li> <li>Internal monitoring of likely significant environmental effects of grants of permission (grant by grant)</li> </ul>	<ul> <li>Where water bodies are failing to meet at least good status this will be investigated with the DHPLG Water Section, the EPA Catchment Unit, the Regional Assembly and, as relevant, Irish Water 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.</li> <li>Where planning applications in key growth towns are rejected due to insufficient capacity in the Waste water treatment Plant or failure of the plant to meet Emission Limit Values, the Eastern and Midland Regional Assembly will coordinate a response between the relevant local authority, EPA and Irish Water to achieve the necessary capacity.</li> <li>The Council will engage, as relevant, with the Eastern and Midland Regional Assembly and the OPW with respect to planning applications for development in areas of elevated flood risk.</li> </ul>
Material Assets	MA	<ul> <li>Programmed delivery of Irish Water infrastructure for all key growth towns in line with Irish Water Investment Plan and prioritisation programme to ensure sustainable growth can be accommodated</li> <li>Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Plan</li> <li>Proportion of population within who report regular cycling / walking to school and work above 2016 CSO figures</li> </ul>	<ul> <li>To map brownfield and infill land parcels across the County.</li> <li>All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan</li> <li>Where septic tanks are proposed, for planning permission to be only granted when applications demonstrate that the outfall from the septic tank will not – incombination with other septic tanks—contribute towards any surface or ground water body not meeting the objective of good status under the Water Framework Directive</li> <li>Increased budget spends on water and waste water infrastructure</li> <li>By 2020 all citizens will have access to speeds of 30Mbps, and that 50% of citizens will be subscribing to speeds of 100Mbps</li> </ul>	<ul> <li>Internal monitoring of likely significant environmental effects of grants of permission (grant by grant)</li> <li>CSO data</li> <li>Consultations with Irish Water (at monitoring evaluation/reporting - see Section 10.4)</li> <li>Department of Housing, Planning and Local Government in conjunction with Local Authorities</li> <li>Department of Communications, Climate Action and Environment</li> <li>Department of Public Expenditure and Reform</li> </ul>	<ul> <li>Where planning applications in key growth towns are rejected due to insufficient capacity in the waste water treatment plant or failure of the waste water treatment plant to meet Emission Limit Values, the Council will coordinate a response between the Regional Assembly, EPA and Irish Water to achieve the necessary capacity.</li> <li>Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, DHPLG and NTA to develop a tailored response.</li> </ul>

Environmental	SEO	Indicators	Targets Targets	Sources	Remedial Action
Component	Code			22.000	Tomosium notion
Air	Α	<ul> <li>Proportion of journeys made by private fossil fuel-based car compared to 2016 National Travel Survey levels of 74%</li> <li>NO<sub>x</sub>, SO<sub>x</sub>, PM10 and PM2.5 as part of Ambient Air Quality Monitoring</li> </ul>	<ul> <li>Decrease in proportion of journeys made by private fossil fuel-based car compared to 2016 National Travel Survey levels.</li> <li>Improvement in Air Quality trends, particularly in relation to transport related emissions of NO<sub>x</sub> and particulate matter</li> </ul>	CSO data Data from the National Travel Survey EPA Air Quality Monitoring Consultations with Department of Transport Tourism and Sport, Transport Trends and Department of Communication Climate Action and Environment (at monitoring evaluation/reporting - see Section 10.4)	Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, DHPLG, DCCAE and NTA to develop a tailored response. See also entry under Population and human health above
Climatic Factors <sup>99</sup>	С	<ul> <li>Implementation of Plan measures relating to climate reduction targets as provided for by Plan provisions including those provided for and referenced in Chapter 3 "Climate Change"</li> <li>Proportion of journeys made by private fossil fuel-based car compared to 2016 levels</li> <li>Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures</li> </ul>	<ul> <li>For review of progress on implementing Plan objectives to demonstrate successful implementation of measures climate reduction targets as provided for by Plan provisions including those provided for and referenced in Chapter 3 "Climate Change"</li> <li>Increase in the proportion of people resident in the County reporting regular cycling / walking to school and work above 2016 CSO figures</li> <li>Decrease in the proportion of journeys made by residents of the County using private fossil fuel-based car compared to 2016 levels</li> <li>Contribute towards transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050</li> <li>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 2020</li> <li>Contribute towards the target of aggregate reduction in carbon dioxide (CO<sub>2</sub>) emissions of at least 80% (compared to 1990 levels) by 2050 across the electricity generation, built environment and transport sectors</li> <li>To promote reduced energy consumption and support the uptake of renewable options and a move away from solid fuels for residential heating</li> <li>See various other national and local targets under Section 8.6</li> </ul>	EPA Annual National Greenhouse Gas Emissions Inventory reporting     Climate Action Regional Office     Consultations with Department of Communication Climate Action and Environment (at monitoring evaluation/reporting - see Section 10.4)     CSO data	Where trends toward carbon reduction are not recorded, the Council will liaise with the Regional Assembly to establish reasons and develop solutions  Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, DHPLG and NTA to develop a tailored response

<sup>&</sup>lt;sup>99</sup> Please also refer to relevant legislation and requirements under Section 4.10, Section 8.8.3 and Appendix I. Targets under the national Climate Action Plan are reviewed and updated periodically and include those under the headings of Electricity, Built Environment, Transport, Agriculture, Forestry & Land Use and Enterprise.

Environmental	SEO	Indicators	Targets	Sources	Remedial Action
Component	Code		3		
Cultural Heritage	СН	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     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	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     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	Internal monitoring of likely significant environmental effects of grants of permission (grant by grant)  Consultation with Department of Culture, Heritage and the Gaeltacht (at monitoring evaluation/reporting - see Section 10.4).	Where monitoring reveals visitor pressure is causing negative effects on key tourist features, the Council will work with Regional Assembly, the Office of Public Works, Fáilte Ireland and other stakeholders to address the pressures through additional mitigation
Landscape	L	Number of 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     To seek to align with the National Landscape Strategy	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	Internal monitoring of likely significant environmental effects of grants of permission (grant by grant)	Where monitoring reveals developments permitted which result in avoidable adverse visual impacts on the landscape, the Council 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)	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> <li>Carry out and environmental assessment for plans or programmes referred to in Articles 2 to 4 of the Directive.</li> <li>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.</li> <li>Consult with relevant authorities, stakeholders and public allowing sufficient time to make a submission.</li> <li>Consult other Member States where the implementation of a plan or programme is likely to have transboundary environmental effects.</li> <li>Inform relevant authorities and stakeholders on the decision to implement the plan or programme.</li> <li>Issue a statement to include requirements detailed in Article 9 of the Directive.</li> <li>Monitor and mitigate significant environmental effects identified by the assessment.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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)	Requires the assessment of the environmental effects of public and private projects which are likely to have significant effects on the environment.  Aims to assess and implement avoidance or mitigation measures to eliminate environmental effects, before consent is given of projects likely to have significant effects on the environment by virtue, inter alia, of their nature, size or location are made subject to a requirement for development consent and an assessment with regard to their effects. Those projects are defined in Article 4.	All projects listed in Annex I are considered as having significant effects on the environment and require an EIA. For projects listed in Annex II, a "screening procedure" is required to determine the effects of projects on the basis of thresholds/criteria or a case by case examination. This should take into account Annex III. The environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case and in accordance with Articles 4 to 12, the direct and indirect effects of a project on the following factors: human beings, fauna and flora, soil, water, air, climate and the landscape, material assets and the cultural heritage, the interaction between each factor. Consult with relevant authorities, stakeholders and public allowing sufficient time to make a submission before a decision is made.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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)	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.		Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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> <li>Conserve all species of naturally occurring birds in the wild state including their eggs, nests and habitats.</li> <li>Protect, manage and control these species and comply with regulations relating to their exploitation.</li> </ul>	<ul> <li>Preserve, maintain or re-establish a sufficient diversity and area of habitats for all the species of birds referred to in Annex 1.</li> <li>Preserve, maintain and establish biotopes and habitats to include the creation of protected areas (Special Protection Areas).</li> </ul>	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-

Legislation, Plan, etc.		Summary of lower level objectives, actions etc.	Relevance to the Plan
Legislation, Plan, etc.	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.	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.	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)	Reducing water pollution caused or induced by nitrates from agricultural sources and - preventing further such pollution.	Ireland's Nitrates Action Programme is designed to prevent pollution of surface waters and ground water from agricultural sources and to protect and improve water quality. Ireland's third NAP came into operation in 2014. Each Member State's NAP must include:  • a limit on the amount of livestock manure applied to the land each year  • set periods when land spreading is prohibited due to risk  • set capacity levels for the storage of livestock manure	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 Integrated Pollution Prevention Control Directive (2008/1/EC)	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.	The IPPC Directive is based on several principles:	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 Plant Protection (products) Directive 2009/127/EC	The Directive aims at reducing the risks and impacts of pesticide use on human health and the environment by introducing different targets, tools and measures such as Integrated Pest Management (IPM) or National Action Plans (NAPs).	The Framework Directive applies to pesticides which are plant protection products.  Regarding pesticide application equipment already in professional use, the Framework Directive introduces requirements for the inspection and maintenance to be carried out on such equipment.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 Renewables Directive (2009/28/EC)	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.	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.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.

Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Indirect Land Use Change Directive (2012/0288 (COD))	<ul> <li>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.</li> <li>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.</li> <li>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.</li> </ul>	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.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Alternative Fuels Infrastructure Directive (2014/94/EU)	This Directive establishes a common framework of measures for the deployment of alternative fuels infrastructure in the Union in order to minimise dependence on oil and to mitigate the environmental impact of transport.	This Directive sets out minimum requirements for the building-up of alternative fuels infrastructure, including recharging points for electric vehicles and refuelling points for natural gas (LNG and CNG) and hydrogen, to be implemented by means of Member States' national policy frameworks, as well as common technical specifications for such recharging and refuelling points, and user information requirements.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 Energy Efficiency Directive (2012/27/EU)	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.	energy savings per year through the implementation of energy efficiency measures	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 Seveso Directive (2012/18/EU)	This Directive lays down rules for the prevention of major accidents which involve dangerous substances, and the limitation of their consequences for human health and the environment, with a view to ensuring a high level of protection throughout the Union in a consistent and effective manner.	The Seveso Directive is well integrated with other EU policies, thus avoiding double regulation or other administrative burden. This includes the following related policy areas:	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.

Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
European Union Biodiversity Strategy to 2020	Aims to halt or reverse biodiversity loss and speed up the EU's transition towards a resource efficient and green economy.     Halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible.	Outlines six targets and twenty actions to aid European Union in halting the loss to biodiversity and eco-system services.      The six targets cover:	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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> <li>Promoting GI in the main EU policy areas.</li> <li>Supporting EU-level GI projects.</li> <li>Improving access to finance for GI projects.</li> <li>Improving information and promoting innovation.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 (2 <sup>nd</sup> Kyoto Period), the Second European Climate Change Programme (ECCP II), Paris climate conference (COP21) 2015 (Paris Agreement)	The UN Kyoto Protocol set of policy measures to reduce greenhouse gas emissions.  The Second European Climate Change Programme (ECCP II) aims to identify and develop all the necessary elements of an EU strategy to implement the Kyoto Protocol.  At the Paris climate conference (COP21) in December 2015, 195 countries adopted the first-ever universal, legally binding global climate deal. The agreement sets out a global action plan to put the world on track to avoid dangerous climate change by limiting global warming to well below 2°C.	The Kyoto Protocol is implemented through the European Climate Change Programme (ECCP II).  EU member states implement measures to improve on or compliment the specified measures and policies arising from the ECCP.  Under COP21, governments agreed to come together every 5 years to set more ambitious targets as required by science; report to each other and the public on how well they are doing to implement their targets; track progress towards the long-term goal through a robust transparency and accountability system.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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> <li>Binding legislation which aims to ensure the European Union meets its climate and energy targets for 2020.</li> <li>Aims to achieve a 20% reduction in EU greenhouse gas emissions from 1990 levels.</li> <li>Aims to raise the share of EU energy consumption produced from renewable resources to 20%.</li> <li>Achieve a 20% improvement in the EU's energy efficiency.</li> </ul>	<ul> <li>Four pieces of complimentary legislation:</li> <li>Reform of the EU Emissions Trading System (EU ETS) to include a cap on emission allowances in addition to existing system of national caps.</li> <li>Member States have agreed national targets for non-EU ETS emissions from countries outside the EU.</li> <li>Meet the national renewable energy targets of 16% for Ireland by 2020.</li> <li>Preparing a legal framework for technologies in carbon capture and storage.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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	A 2030 Framework for climate and energy, including EU-wide targets and policy objectives for the period between 2020 and 2030 that has been agreed by European countries.     Targets include a 40% cut in greenhouse gas emissions compared to 1990 levels, at least a 27% share of renewable energy consumption and at least 27% energy savings compared with the business-as-usual scenario.	To meet the targets, the European Commission has proposed the following policies for 2030:  A reformed EU emissions trading scheme (ETS).  New indicators for the competitiveness and security of the energy system, such as price differences with major trading partners, diversification of supply, and interconnection capacity between EU countries.  First ideas for a new governance system based on national plans for competitive, secure, and sustainable energy. These plans will follow a common EU approach. They will ensure stronger investor certainty,	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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

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		greater transparency, enhanced policy coherence and improved coordination across the EU.	objectives of the regulatory framework for environmental protection and management.
The Clean Air for Europe Directive (2008/50/EC) (EU Air Framework Directive) Fourth Daughter Directive (2004/107/EC)	<ul> <li>The CAFE Directive merges existing legislation into a single directive (except for the fourth daughter directive).</li> <li>Sets new air quality objectives for PM<sub>2.5</sub> (fine particles) including the limit value and exposure related objectives.</li> <li>Accounts for the possibility to discount natural sources of pollution when assessing compliance against limit values.</li> <li>Allows the possibility for time extensions of three years (PM<sub>10</sub>) or up to five years (NO<sub>2</sub>, benzene) for complying with limit values, based on conditions and the assessment by the European Commission.</li> <li>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.</li> </ul>	<ul> <li>Sets objectives for ambient air quality designed to avoid, prevent or reduce harmful effects on human health and the environment as a whole.</li> <li>Aims to assess the ambient air quality in Member States on the basis of common methods and criteria.</li> <li>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.</li> <li>Ensures that such information on ambient air quality is made available to the public.</li> <li>Aims to maintain air quality where it is good and improving it in other cases.</li> <li>Aims to promote increased cooperation between the Member States in reducing air pollution.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Noise Directive (2002/49/EC)	The Noise Directive - Directive 2002/49/EC relating to the assessment and management of environmental noise - is part of an EU strategy setting out to reduce the number of people affected by noise in the longer term and to provide a framework for developing existing Community policy on noise reduction from source.	The Directive requires competent authorities in Member States to:  Draw up strategic noise maps for major roads, railways, airports and agglomerations, using harmonised noise indicators and use these maps to assess the number of people which may be impacted upon as a result of excessive noise levels;  Draw up action plans to reduce noise where necessary and maintain environmental noise quality where it is good; and  Inform and consult the public about noise exposure, its effects, and the measures considered to address noise.  The Directive does not set any limit value, nor does it prescribe the measures to be used in the action plans, which remain at the discretion of the competent authorities.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Floods Directive (2007/60/EC)	Establishes a framework for the assessment and management of flood risks     Reduce adverse consequences for human health, the environment, cultural heritage and economic activity associated with floods in the Community	Assess all water courses and coast lines at risk from flooding through Flood Risk Assessment     Prepare flood hazard maps and flood risk maps outlining the extent or potential of flooding and assets and humans at risk in these areas at River Basin District level (Article 3(2) (b)) and areas covered by Article 5(1) and Article 13(1) (b) in accordance with paragraphs 2 and 3.     Implement flood risk management plans and take adequate and coordinated measures to reduce flood risk for the areas covered by the Articles listed above.     Inform the public and allow the public to participate in planning process.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Water Framework Directive (2000/60/EC)	Establish a framework for the protection of water bodies to include inland surface waters, transitional waters, coastal waters and groundwater and their dependent wildlife and habitats.      Preserve and prevent the deterioration of water status and where necessary improve and maintain "good status" of water bodies.      Promote sustainable water usage.      The Water Framework Directive repealed the following Directives:	<ul> <li>Protect, enhance and restore all water bodies and meet the environmental objectives outlined in Article 4 of the Directive.</li> <li>Achieve "good status" for all waters.</li> <li>Manage water bodies based on identifying and establishing river basins districts.</li> <li>Involve the public and streamline legislation.</li> <li>Prepare and implement a River Basin Management Plan for each river basin districts identified and a Register of Protected Areas.</li> <li>Establish a programme of monitoring for surface water status, groundwater status and protected areas.</li> <li>Recover costs for water services.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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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	<ul> <li>Groundwater (Dangerous Substances) Directive</li> <li>Dangerous Substances Directive</li> </ul>		
Groundwater Directive (2006/118/EC)	Protect, control and conserve groundwater. Prevent the deterioration of the status of all bodies of groundwater. Implements measures to prevent and control groundwater pollution, including criteria for assessing good groundwater chemical status and criteria for the identification of significant and sustained upward trends and for the definition of starting points for trend reversals.	Meet minimum groundwater standards listed in Annex 1 of Directive.     Meet threshold values adopted by national legislation for the pollutants, groups of pollutants and indicators of pollution which have been identified as contributing to the characterisation of bodies or groups of bodies of groundwater as being at risk, also taking into account Part B of Annex II.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Drinking Water Directive (98/83/EC)	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> <li>Set values applicable to water intended for human consumption for the parameters set out in Annex I.</li> <li>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).</li> <li>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.</li> <li>Ensure that any failure to meet the parametric values set in accordance with Article 5 is immediately investigated in order to identify the cause.</li> <li>Ensure that the necessary remedial action is taken as soon as possible to restore its quality and shall give priority to their enforcement action.</li> <li>Undertake remedial action to restore the quality of the water where necessary to protect human health.</li> <li>Notify consumers when remedial action is being undertaken except where the competent authorities consider the non-compliance with the parametric value to be trivial.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Urban Waste Water Treatment Directive (91/271/EEC)	discharge of urban waste water and the treatment and discharge of waste water from certain industrial sectors.  • The objective of the Directive is to protect the environment from the adverse effects of waste water discharges.	Urban waste water entering collecting systems shall before discharge, be subject to secondary treatment.  Annex II requires the designation of areas sensitive to eutrophication which receive water discharges.  Establishes minimum requirements for urban waste water collection and treatment systems in specified agglomerations to include special requirements for sensitive areas and certain industrial sectors.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Environmental Liability Directive (2004/35/EC) as amended by Directive 2006/21/EC, Directive 2009/31/EC and Directive 2013/30/EU	Establish a framework of environmental liability based on the 'polluter-pays' principle, to prevent and remedy environmental damage.	<ul> <li>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.</li> <li>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.</li> <li>Where environmental damage has occurred the operator shall, without delay, inform the competent authority of all relevant aspects of the</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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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European Convention on the Protection of the Archaeological Heritage (Valletta 1992)	The aim of this (revised) Convention is to protect the archaeological heritage as a source of the European collective memory and as an instrument for historical and scientific study.  The main purpose of the Convention is to reinforce and	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.  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.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.  Where new land use developments or
the Architectural Heritage of Europe (Granada 1995)	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> <li>the heritage within the territories of the parties.</li> <li>The affirmation of European solidarity with regard to the protection of the heritage and the fostering of practical co-operation between states and regions.</li> </ul>	activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Council of Europe Framework Convention on the Value of Cultural Heritage for Society (Faro 2005)	Cultural heritage is a group of resources inherited from the past which people identify, independently of ownership, as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions. It includes all aspects of the environment resulting from the interaction between people and places through time.  A heritage community consists of people who value specific aspects of cultural heritage which they wish, within the framework of public action, to sustain and transmit to future generations.	<ul> <li>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.</li> <li>Recognise individual and collective responsibility towards cultural heritage.</li> <li>Emphasise that the conservation of cultural heritage and its sustainable use have human development and quality of life as their goal.</li> <li>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.</li> <li>Greater synergy of competencies among all the public, institutional and private actors concerned.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 Landscape Convention 2000	The developments in agriculture, forestry, industrial and mineral production techniques, together with the practices followed in town and country planning, transport, networks, tourism and recreation, and at a more general level, changes in the world economy, have in many cases accelerated the	<ul> <li>Promote protection, management and planning of landscapes.</li> <li>Organise European co-operation on landscape issues.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination effects (see Section 8.2) may

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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
	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.		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.
The Seventh Environmental Action Programme (EAP) of the European Community (2013-2020)	It identifies three key objectives:  to protect, conserve and enhance the Union's natural capital  to turn the Union into a resource-efficient, green, and competitive low-carbon economy  to safeguard the Union's citizens from environment-related pressures and risks to health and wellbeing	Four so called "enablers" will help Europe deliver on these objectives (goals):  Better implementation of legislation.  Better information by improving the knowledge base.  More and wiser investment for environment and climate policy.  Full integration of environmental requirements and considerations into other policies.  Two additional horizontal priority objectives complete the programme:  To make the Union's cities more sustainable.  To help the Union address international environmental and climate challenges more effectively.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Bern Convention (Convention on the Conservation of European Wildlife and Natural Habitats)	The convention has three main aims:	<ul> <li>The Parties under the convention recognise the intrinsic value of nature, which needs to be preserved and passed to future generations, they also:</li> <li>Seek to ensure the conservation of nature in their countries, paying particular attention to planning and development policies and pollution control.</li> <li>Look at implementing the Bern Convention in central Eastern Europe and the Caucus.</li> <li>Take account of the potential impact on natural heritage by other policies.</li> <li>Promote education and information of the public, ensuring the need to conserve species is understood and acted upon.</li> <li>Develop an extensive number of species action plans, codes of conducts, and guidelines, at their own initiative or in co-operation with other organisations.</li> <li>Created the Emerald Network, an ecological network made up of Areas of Special Conservation Interest.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Bali Road Map (2007)	The overall goals of the project are twofold: To increase national capacity to co-ordinate ministerial views, participate in the UNFCCC process, and negotiate positions within the timeframe of the Bali Action Plan; and To assess investment and financial flows to address climate change for up to three key sectors and/or economic activities.	The Bali Action Plan is centred on four main building Blocks:  mitigation  adaptation  technology  financing	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Cancun Agreements (2010)	Set of decisions taken at the COP 16 Conference in Cancun in 2010 which addresses a series of key issues in the fight against climate change. Cancun Agreements' main objectives cover:  • Mitigation  • Transparency of actions  • Technology  • Finance  • Adaptation  • Forests  • Capacity building	Among the most prominent agreements is the establishment of a Green Climate Fund to transfer money from the developed to developing world to tackle the impacts of climate change.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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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Doha Climate Gateway (2012)	Set of decisions taken at the COP 18 meeting in Doha in 2012 which pave the way for a new agreement in Paris in 2015.	<ul> <li>Set out a timetable to adopt a universal climate agreement by 2015 (to come into effect in 2020);</li> <li>Complete the work under Bali Action Plan and to focus on new completing new targets;</li> <li>Strengthen the aim to cut greenhouse gases and help vulnerable countries to adapt;</li> <li>Amend Kyoto Protocol to include a new commitment period for cutting down the greenhouse gases emissions; and</li> <li>Provide the financial and technology support and new institutions to allow clean energy investment and sustainable growth in developing countries.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 Common Agricultural Policy	<ul> <li>To improve agricultural productivity, so that consumers have a stable supply of affordable food; and</li> <li>To ensure that EU farmers can make a reasonable living.</li> </ul>	<ul> <li>ensuring viable food production that will contribute to feeding the world's population, which is expected to rise considerably in the future;</li> <li>Climate change and sustainable management of natural resources;</li> <li>Looking after the countryside across the EU and keeping the rural economy alive.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 REACH Regulation (EC 1907/2006)	Aims to improve the protection of human health and the environment through the better and earlier identification of the intrinsic properties of chemical substances.	The aims are achieved by applying REACH, namely: Registration, Language Evaluation, Authorisation; and Restriction of chemicals. REACH also aims to enhance innovation and competitiveness of the EU chemicals industry.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Stockholm Convention	The objective of the Stockholm Convention is to protect human health and the environment from persistent organic pollutants.	<ul> <li>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</li> <li>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</li> <li>Reduce or eliminate releases from unintentionally produced POPs that are listed in Annex C to the Convention</li> <li>Ensure that stockpiles and wastes consisting of, containing or contaminated with POPs are managed safely and in an environmentally sound manner</li> <li>To target additional POPs</li> <li>Other provisions of the Convention relate to the development of implementation plans, information exchange, public information, awareness and education, research, development and monitoring, technical assistance, financial resources and mechanisms, reporting, effectiveness evaluation and non-compliance</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Ramsar Convention	The Convention's mission is "the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world".	Under the "three pillars" of the Convention, the Contracting Parties commit to:  Work towards the wise use of all their wetlands;  Designate suitable wetlands for the list of Wetlands of International Importance (the "Ramsar List") and ensure their effective management;  Cooperate internationally on transboundary wetlands, shared wetland systems and shared species.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination effects (see Section 8.2) may arise. Implementation of the Plan needs to

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			comply with all environmental legislation and align with and cumulatively contribute towards – in 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	<ul> <li>Europe 2020 sets out a vision of Europe's social market economy for the 21st century and puts forward three mutually reinforcing priorities:</li> <li>Smart growth: developing an economy based on knowledge and innovation;</li> <li>Sustainable growth: promoting a more resource efficient, greener and more competitive economy;</li> <li>Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion.</li> </ul>	In order to reach these priorities, the Commission proposes five quantitative targets to fulfil by 2020:  1. 75 % of the population aged 20-64 should be employed;  2. 3% of the EU's GDP should be invested in R&D  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 incombination 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.
The European Green Deal (EGD) 2019	The deal sets out how to make Europe the first climate-neutral continent by 2050, boosting the economy, improving people's quality of life, caring for nature and leaving no one behind.	<ul> <li>It sets out a roadmap with actions to boost the efficient use of resources by moving to a clean, circular economy, restore biodiversity and cut pollution.</li> <li>It outlines investments required, financing tools available and explains how to ensure a just and inclusive transition.</li> <li>In order to meet the goal to become climate neutral by 2050 as part of the European Green Deal, the European Union (EU) Commission proposed on 4th March 2020 to bring about the first European Climate Law and legally bind the target of net zero greenhouse gas emissions by 2050.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 (2021-2030)	The National Planning Framework is the Government's high-level strategic plan for shaping the future growth and development of to the year 2040. It is a framework to guide public and private investment, to create and promote opportunities for people, and to protect and enhance the environment - from villages to cities, and everything around and in between. As part of Project Ireland 2040 the National Development Plan sets out the Government's overarching investment strategy and budget for the period 2021-2030. It is an ambitious plan that balances the significant demand for public investment across all sectors and regions of Ireland with a major focus on improving the delivery of infrastructure projects to ensure speed of delivery and value for money.	The National Planning Framework published alongside the National Development Plan yields ten National Strategic Outcomes as follows:  1. Compact Growth 2. Enhanced Regional Accessibility 3. Strengthened Rural Economies and Communities 4. Sustainable Mobility 5. A Strong Economy, supported by Enterprise, Innovation and Skills 6. High-Quality International Connectivity 7. Enhanced Amenity and Heritage 8. Transition to a Low-Carbon and Climate-Resilient Society 9. Sustainable Management of Water and other Environmental Resources 10. Access to Quality Childcare, Education and Health Services	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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:  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 incombination 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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Planning and Development Act 2000 (as amended)	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> <li>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.</li> <li>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.</li> <li>Additionally, Environmental Impact Assessment (EIA) is required for a range of classes and large-scale projects.</li> <li>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.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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	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> <li>The Regulations cover plans and programmes in all of the sectors listed in article 3(2) of the Directive except land-use planning.</li> <li>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.</li> <li>Transposition in respect of the land-use planning sector is contained in the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004).</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 (Birds and Natural Habitats) Regulations 2011 (S.I. 477of 2011, as amended)	These Regulations provide a new for the implementation in Ireland of Council Directive 92/43/EEC on habitats and protection of wild fauna and flora (as amended) and for the implementation of Directive 2009/147/EC of the European Parliament and of the Council on the protection of wild birds.	<ul> <li>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.</li> <li>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.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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	To make provision in relation to the prevention, management and control of waste; to give effect to provisions of certain acts adopted by institutions of the European communities in respect of those matters; to amend the Environmental Protection Agency Act, 1992, and to repeal certain enactments and to provide for related matters.	The Waste Management Act contains a number of key legal obligations, including requirements for waste management planning, waste collection and movement, the authorisation of waste facilities, measures to reduce the production of waste and/or promote its recovery.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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)	The purpose of these Regulations is to support the achievement of favourable conservation status for freshwater pearl mussels	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.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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

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Logislation, Flan, etc.	Summary of high fever anni purposer objective	Set out the duties of public authorities in respect of the sub-basin	- in combination with other users and bodies
		management plans and programmes of measure.	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)	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.	<ul> <li>The substances and threshold values set out in Schedule 5 to S.1. No. 9 of 2010 have been reviewed and amended where necessary, based on existing monitoring information and international guidelines on appropriate threshold values.</li> <li>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.</li> <li>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.</li> <li>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.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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)	These Regulations, which give effect to Ireland's 3 <sup>rd</sup> Nitrates Action Programme, provide statutory support for good agricultural practice to protect waters against pollution from agricultural sources	The Regulations include measures such as: Periods when land application of fertilisers is prohibited Limits on the land application of fertilisers Storage requirements for livestock manure; and Monitoring of the effectiveness of the measures in terms of agricultural practice and impact on water quality.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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	The Climate Action Plan 2021 provides a detailed plan for taking decisive action to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and setting Ireland on a path to reach net-zero emissions by no later than 2050, as committed to in the Programme for Government and set out in the Climate Act 2021.	The Plan lists the actions needed to deliver on our climate targets and sets indicative ranges of emissions reductions for each sector of the economy. It will be updated annually, including in 2022, to ensure alignment with Ireland's legally binding economy-wide carbon budgets and sectoral ceilings.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 Plan 2021	It is an all of Government plan to tackle climate change and bring about a step change in Ireland's climate ambition over the coming years.  The plan sets out an ambitious course of action over the coming years to address the diverse and wide-ranging impacts climate disruption is having on Ireland's environment, society, economic and natural resources.  The Climate Action Plan sets out clear 2030 targets for each sector with the ultimate objective of achieving a transition to a competitive, low-carbon, climate-resilient, and environmentally sustainable society and economy by 2050.	Climate actions contained in the Climate Action Plan also seek to:  Introduce five year carbon budgets;  Implement a carbon rate of at least €80 per tonne by 2030;  Reduce Ireland's reliance on fossil fuels by phasing out coal and peat burning plants;  Reduce the amount of waste sent to landfill to 10% of all waste by 2035;  Ban specific single use plastics and ensure all plastic packaging is reusable or recyclable by 2030;  Reduce food waste by 50% by 2030; and  Phase out the installation of oil and gas boilers in new houses by 2022 and 2025 respectively.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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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Climate Action and Low Carbon Development (Amendment) Bill 2020	The Bill legally commits the State to move to a climate resilient and climate neutral economy by 2050.	The Bill includes the following key elements:	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
The Sustainable Development Goals National Implementation Plan (2018 – 2020)	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.	The Plan identifies four strategic priorities to guide implementation:  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.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Infrastructure and Capital Investment Plan (2016-2021)		<ul> <li>This Capital Plan reflects the Government's commitment to supporting strong and sustainable economic growth and raising welfare and living standards for all.</li> <li>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.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 Union (Birds and Natural Habitats) (Sea-Fisheries) Regulations 2013 (S.I. 290 of 2013)	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).	<ul> <li>Regulation 3 provides for the submission of a Fisheries Natura Plan in relation to planned fisheries;</li> <li>Regulation 4 provides for a screening of a Fisheries Natura Plan to determine whether or not an appropriate assessment is required;</li> <li>Regulation 5 provides for an appropriate assessment of a Fisheries Natura Plan and also provides for public and statutory consultation;</li> <li>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;</li> <li>Regulation 7 provides for publication of the adopted Fisheries Natura Plan;</li> <li>Regulation 8 provides for a Risk Assessment of unplanned fisheries and also provides for public and statutory consultation on the assessment;</li> <li>Regulation 9 provides for the issue of a Natura Declaration to prohibit, restrict including restricting by permit, control, etc. of sea fishing activities;</li> <li>Regulation 10 provides for Natura Permits to be issued where required by Natura Declarations; and</li> <li>Regulations 11 to 31 deal with functions of authorised officers and related matters, offences, etc.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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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Ireland's National Renewable Energy Action Plan 2010 (Irish Government submission to the European Commission)	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.	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.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Strategy for Renewable Energy (2012-2020)	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 costefficient 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.	This document sets out five strategic goals, reflecting the key dimensions of the renewable energy challenge to 2020:  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.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 Climate Mitigation Plan 2017	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.	The National Mitigation Plan focuses on the following issues:  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	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 Position on Climate Action and Low Carbon Development (2014)	The National Policy Position provides a high-level policy direction for the adoption and implementation by Government of plans to enable the State to move to a low carbon economy by 2050. Statutory authority for the plans is set out in the Climate Action and Low Carbon Development Act 2015.	National climate policy in Ireland:     Recognises the threat of climate change for humanity;     Anticipates and supports mobilisation of a comprehensive international response to climate change, and global transition to a low-carbon future;     Recognises the challenges and opportunities of the broad transition agenda for society; and     Aims, as a fundamental national objective, to achieve transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 Clean Air Strategy [in preparation]	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> <li>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.</li> <li>The Strategy should also help tackle climate change.</li> <li>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.</li> <li>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.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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

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			objectives of the regulatory framework for environmental protection and management.
EirGrid's Grid25 Strategy and associated Grid25 Implementation 2017-2022	EirGrid's mission is to develop, maintain and operate a safe, secure, reliable, economical and efficient transmission system for Ireland; "Our vision is of a grid developed to match future needs, so it can safely and reliably carry power all over the country to the major towns and cities and onwards to every home, farm and business where the electricity is consumed and so it can meet the needs of consumers and generators in a sustainable way."	Grid25, EirGrid's roadmap to uprate the electricity transmission grid by 2025, continues to be implemented so as to increase the capacity of the grid, to satisfy future demand, and to help Ireland meet its target of 40 per cent of electricity from renewable energy by 2020.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
All Island Grid Study 2008	The All Island Grid Study is the first comprehensive assessment of the ability of the electrical power system and, as part of that, the transmission network ("the grid") on the island of Ireland to absorb large amounts of electricity produced from renewable energy sources.  The objective of this five-part study is to assess the technical feasibility and the relative costs and benefits associated with various scenarios for increased shares of electricity sourced from renewable energy in the all island power system.	<ul> <li>Key conclusions of the study:</li> <li>The presented results indicate that the differences in cost between the highest cost and the lowest cost portfolios are low (7%), given the assumptions made and costs included in the Study.</li> <li>All but the high coal-based portfolio lead to significant reductions of CO2 emissions compared to portfolio 1</li> <li>All but the high coal-based portfolio lead to reductions on the dependency of the all island system on fuel and electricity imports.</li> <li>The limitations of the study may overstate the technical feasibility of the portfolios analysed and could impact the costs and benefits resulting. Further work is required to understand the extent of such impact.</li> <li>Timely development of the transmission networks, requiring means to address the planning challenge, is a precondition for implementation of the portfolios considered.</li> <li>Market mechanisms must facilitate the installation of complementary, i.e. flexible, dispatchable plant, so as to maintain adequate levels of system security.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Strategy for the Future Development of National and Regional Greenways (2018)	The objective of this Strategy is to assist in the strategic development of nationally and regionally significant Greenways in appropriate locations constructed to an appropriate standard in order to deliver a quality experience for all Greenways users.  It also aims to increase the number and geographical spread of Greenways of scale and quality around the country over the next 10 years with a consequent significant increase in the number of people using Greenways as a visitor experience and as a recreational amenity.	A Strategic Greenway network of national and regional routes, with a number of high capacity flagship routes that can be extended and/or link with local Greenways and other cycling and walking infrastructure; Greenways of scale and appropriate standard that have significant potential to deliver an increase in activity tourism to Ireland and are regularly used by overseas visitors, domestic visitors and locals thereby contributing to a healthier society through increased physical activity; Greenways that provide a substantially segregated 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.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 Water Resources Plan [in preparation]	<ul> <li>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.</li> <li>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.</li> </ul>	The key objectives of the plan are to:  Identify areas where there are current and future potential water supply shortfalls, taking into account normal and extreme weather conditions  Assess the current and future water demand from homes, businesses, farms, and industry  Consider the impacts of climate change on Ireland's water resources	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination effects (see Section 8.2) may arise. Implementation of the Plan needs to comply with all environmental legislation and

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		Develop a drought plan advising measures to be taken before and during drought events  Develop a plan detailing how we deal with the material that is produced as a result of treating drinking water  Identify, develop and assess options to help meet potential shortfalls in water supplies  Assess the water resources available at a national level including lakes, rivers and groundwater	align with and cumulatively contribute towards – in 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 Strategic Plan for Aquaculture Development (2014- 2020)	Vision: "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."	General development and growth objectives of marine and freshwater aquaculture (2014 – 2020):  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	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Construction 2020, A Strategy for a Renewed Construction Sector	<ul> <li>Construction 2020 sets out a package of measures agreed by the Government and is aimed at stimulating activity in the building industry.</li> <li>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.</li> </ul>	<ul> <li>This Strategy therefore addresses issues including:</li> <li>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;</li> <li>Continuing improvement of the planning process, striking the right balance between current and future requirements;</li> <li>The availability of financing for viable and worthwhile projects;</li> <li>Access to mortgage finance on reasonable and sustainable terms;</li> <li>Ensuring we have the tools we need to monitor and regulate the sector in a way that underpins public confidence and worker safety;</li> <li>Ensuring a fit for purpose sector supported by a highly skilled workforce achieving high quality and standards; and</li> <li>Ensuring opportunities are provided to unemployed former construction workers to contribute to the recovery of the sector.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Sustainable Development: A Strategy for Ireland (1997)	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.	The Strategy addresses all areas of Government policy, and of economic and societal activity, which impact on the environment. It seeks to reorientate policies as necessary to ensure that the strong growth Ireland enjoys and seeks to maintain will be environmentally sustainable.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 Landscape Strategy for Ireland 2015-2025 and National Landscape Character Assessment (pending preparation)	<ul> <li>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.</li> <li>Landscape Strategy Vision: "Our landscape reflects and embodies our cultural values and our shared natural heritage and contributes to the well-being of our society, environment and economy. We have an obligation to ourselves and to</li> </ul>	<ul> <li>The objectives of the National Landscape Strategy are to:         <ul> <li>Implement the European Landscape Convention by integrating landscape into the approach to sustainable development;</li> <li>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;</li> <li>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;</li> </ul> </li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.

Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Englishment, Flam, Ctc.	future generations to promote its sustainable protection, management and planning."	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.	Note that I tall
National Hazardous Waste Management Plan (EPA) 2014- 2020	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:  To prevent and reduce the generation of hazardous waste by industry and society generally;  To maximise the collection of hazardous waste with a view to reducing the environmental and health impacts of any unregulated waste;  To strive for increased self-sufficiency in the management of hazardous waste and to minimise hazardous waste export;  To minimise the environmental, health, social and economic impacts of hazardous waste generation and management.	The revised Plan makes 27 recommendations under the following topics:  Prevention Collection Self-sufficiency Regulation Legacy issues North-south cooperation Guidance and awareness Implementation	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Ministerial Guidelines such as Sustainable Rural Housing Guidelines and Flood Risk Management Guidelines	The Department produces a range of guidelines designed to help planning authorities, An Bord Pleanála, developers and the general public and cover a wide range of issues amongst others, architectural heritage, child care facilities, landscape, quarries and residential density.	The Minister issues statutory guidelines under Section 28 of the Act which planning authorities and An Bord Pleanála are obliged to have regard to in the performance of their planning functions.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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	The vision is: "A Healthy Ireland, where everyone can enjoy physical and mental health and wellbeing to their full potential, where wellbeing is valued and supported at every level of society and is everyone's responsibility."	These four goals are interlinked, interdependent and mutually supportive: Goal 1: Increase the proportion of people who are healthy at all stages of life Goal 2: Reduce health inequalities Goal 3: Protect the public from threats to health and wellbeing Goal 4: Create an environment where every individual and sector of society can play their part in achieving a healthy Ireland	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.	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 incombination 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

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			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)	Outlines a policy for how a sustainable travel and transport system can be achieved.     Sets out five key goals:	Others lower level aims include:  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 incombination 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	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.	The three priorities stated in SFILT are: 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.  In delivering on the steady state maintenance objective set out in SFILT, the Plan includes for: 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 incombination 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)	White paper setting out a framework for delivering a sustainable energy future in Ireland.  Outlines strategic Goals for:  Security of Supply  Sustainability of Energy  Competitiveness of Energy Supply	The underpinning Strategic Goals are:	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 Adaptation Framework (NAF) 2018 and associated regional, local and sectoral adaptation plans	NAF specifies the national strategy for the application of adaptation measures in different sectors and by local authorities in their administrative areas in order to reduce the vulnerability of the State to the negative effects of climate change and to avail of any positive effects that may occur	Adaptation under this Framework should seek to minimise costs and maximise the opportunities arising from climate change.     Adaptation actions range from building adaptive capacity (e.g. increasing awareness, sharing information and targeted training) through to policy and finance-based actions.     Adaptation actions must be risk based, informed by existing vulnerabilities of our society and systems and an understanding of projected climate change.     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 incombination 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.
Governments White Paper 'Ireland's Transition to a Low Carbon Energy Future' (2015 – 2030)	The White Paper sets out a vision and a framework to guide Irish energy policy between now and 2030. A complete energy policy update informed by the vision to transform Ireland into a low carbon society and economy by 2050.	2030 will represent a significant milestone, meaning:         Reduced GHG emissions from the energy sector by between 80% and 95%         Ensuring that secure supplies of competitive and affordable energy remain available to citizens and businesses.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination effects (see Section 8.2) may arise. Implementation of the Plan needs to

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			comply with all environmental legislation and align with and cumulatively contribute towards – in 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)	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 incombination 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)	This is the second National Energy Efficiency Action Plan for Ireland.	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 incombination 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	The act provides protection and conservation of wild flora and fauna.	Provides protection for certain species, their habitats and important ecosystems Give statutory protection to NHAs Enhances wildlife species and their habitats Includes more species for protection	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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	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> <li>To mainstream biodiversity in the decision-making process across all sectors.</li> <li>To substantially strengthen the knowledge base for conservation, management and sustainable use of biodiversity.</li> <li>To increase awareness and appreciation of biodiversity and ecosystems services.</li> <li>To conserve and restore biodiversity and ecosystem services in the wider countryside.</li> <li>To conserve and restore biodiversity and ecosystem services in the marine environment.</li> <li>To expand and improve on the management of protected areas and legally protected species.</li> <li>To substantially strengthen the effectiveness of international governance for biodiversity and ecosystem services.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.

		the Laois County Development Plan 2021-2021	
Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
National Broadband Plan (2012)	Sets out the strategy to deliver high speed broadband throughout Ireland.	<ul> <li>The Plan sets out:</li> <li>A clear statement of Government policy on the delivery of High-Speed Broadband.</li> <li>Specific targets for the delivery and rollout of high-speed broadband and the speeds to be delivered.</li> <li>The strategy and interventions that will underpin the successful implementation of these targets.</li> <li>A series of specific complementary measures to promote implementation of Government policy in this area.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 (Water Policy) Regulations of 2003 (SI 722 of 2003)  European Communities (Water Policy) Regulations of 2003 (SI 350 of 2014)  European Communities Environmental Objectives (Surface waters) Regulations of 2009 (SI 272 of 2009)	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> <li>Implements River basin districts and characterisation of RBDs and River Basin Management Plans.</li> <li>Requires the public to be informed and consulted on the Plan and for progress reports to be published on RBDs.</li> <li>Implements a Register of protected areas, Classification systems and Monitoring programmes for water bodies.</li> <li>Allows the competent authority to recover the cost of damage/destruction of status of water body.</li> <li>Outlines environmental objectives and programme of measures and environmental quality standards for priority substances.</li> <li>Outlines criteria for assessment of groundwater.</li> <li>Outlines environmental objectives to be achieved for surface water bodies.</li> <li>Outlines surface water quality standards.</li> <li>Establishes threshold values for the classification and protection of surface waters against pollution and deterioration in quality.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 of 2010 (SI 9 of 2010)	Transpose the requirements of the Groundwater Directive 2006/118/EC into Irish Legislation.	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 incombination 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.
Water Pollution Acts 1977 to 1990	The Water Pollution Acts allow Local Authorities the authority regulate and supervise actions relating to water in their division.	The Water Pollution Acts enable local authorities to: Prosecute for water pollution offences. Attach appropriate pollution control conditions in the licensing of effluent discharges from industry, etc., made to waters. Issue notices ("section 12 notices") to farmers, etc., specifying measures to be taken within a prescribed period to prevent water pollution. issue notices requiring a person to cease the pollution of waters and requiring the mitigation or remedying of any effects of the pollution in the manner and within the period specified in such notices; Seek court orders, including High Court injunctions, to prevent, terminate, mitigate or remedy pollution/its effects. Prepare water quality management plans for any waters in or adjoining their functional areas.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Water Services Act 2007  Water Services (Amendment) Act 2012  Water Services Act (No. 2) 2013	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.	Key strategic objectives include:  Ensuring Irish Water delivers infrastructural projects that meet key public health, environmental and economic objectives in the water services sector.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination effects (see Section 8.2) may arise. Implementation of the Plan needs to

Water Services Act (No. 2) 2013

CAAS for Laois County Council

		the Labis County Development Flan 2021-2027	
Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
	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.	<ul> <li>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.</li> <li>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</li> <li>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.</li> <li>Promoting water conservation through Irish Water's Capital Investment Plan, the Rural Water Programme and other measures.</li> <li>Monitoring the on-going implementation of septic tanks inspection regime and the National Inspection Plan for Domestic Waste Water Treatment Systems.</li> <li>Ensuring a fair funding model to deliver water services.</li> <li>Overseeing the establishment of an economic regulation function under the CER.</li> </ul>	comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Irish Water's Water Services Strategic Plan 2015 and associated Proposed Capital Investment Plan (2014-2016)	This Water Services Strategic Plan sets out strategic objectives for the delivery of water services over the next 25 years up to 2040. It details current and future challenges which affect the provision of water services and identifies the priorities to be tackled in the short and medium term.	Six strategic objectives as follows:  Meet Customer Expectations.  Ensure a Safe and Reliable Water Supply.  Provide Effective Management of 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 incombination 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.
Raised Bog SAC Management Plan and Review of Raised Bog Natural Heritage Areas	Aims to meet nature conservation obligations while having regard to national and local economic, social and cultural needs	Ensure that the implications of management choices for water levels, quantity and quality are fully explored, understood and factored into policy making and land use planning.     Review the current raised bog NHA network in terms of its contribution to the national conservation objective for raised bog habitats and determine the most suitable sites to replace the losses of active raised bog habitat and high bog areas within the SAC network and to enhance the national network of NHAs.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 Harvest 2020	Food Harvest 2020 is a roadmap for the Irish food industry, as it seeks to innovate and expand in response to increased global demand for quality foods. It sets out a vision for the potential growth in agricultural output after the removal of milk quotas.	Seeks for the improvement of all agricultural sectors at all levels in terms of sustainability, environmental consideration and marketing development.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 incombination effects (see Section 8.2) may

Logislation Plan etc		Summary of lower level objectives, actions etc.	Relevance to the Plan
Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	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)	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> <li>Establish best practice farming methods and production methods in order to protect landscapes and maximise conservation.</li> <li>Protect biodiversity, endangered species of flora and fauna and wildlife habitats.</li> <li>Ensure food is produced with the highest regard to the environment.</li> <li>Implement nutrient management plans and grassland management plans.</li> <li>Protect and maintain water bodies, wetlands and cultural heritage.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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	The National Rural Development Programme, prepared by the Department of Agriculture, Fisheries and Food, sets out a national programme based on the EU framework for rural development and prioritises improving the competitiveness of agriculture, improving the environment and improving the quality of life in rural areas	At a more detailed level, the programme also:  Supports structural change at farm level including training young farmers and encouraging early retirement, support for restructuring, development and innovation;  Aims to improve the environment, biodiversity and the amenity value of the countryside by support for land management through funds such as Natura 2000 payments etc.; and  Aims to improve quality of life in rural areas and encouraging diversification of economic activity through the implementation of local development strategies such as non-agricultural activities	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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:      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 incombination 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	River Basin Management Plans set out the measures planned to maintain and improve the status of waters.	<ul> <li>Aim to protect and enhance all water bodies in the RBD and meet the environmental objectives outlined in Article 4 of the Water Framework Directive.</li> <li>Identify and manages water bodies in the RBD.</li> <li>Establish a programme of measures for monitoring and improving water quality in the RBD.</li> <li>Involve the public through consultations.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.

Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
National Peatlands	This Strategy aims to provide a long-term framework within	Objectives of the Strategy:	Where new land use developments or
Strategy (2015-2025)	which all of the peatlands within the State can be managed responsibly in order to optimise their social, environmental and economic contribution to the well-being of this and future generations.	<ul> <li>To give direction to Ireland's approach to peatland management.</li> <li>To apply to all peatlands, including peat soils.</li> <li>To ensure that the relevant State authorities and state-owned companies that influence such decisions contribute to meeting crosscutting objectives and obligations in their policies and actions.</li> <li>To ensure that Ireland's peatlands are sustainably managed so that their benefits can be enjoyed responsible.</li> <li>To inform appropriate regulatory systems to facilitate good decision making in support of responsible use.</li> <li>To inform the provision of appropriate incentives, financial supports and disincentives where required.</li> <li>To provide a framework for determining and ensuring the most appropriate future use of cutover and cutaway bogs.</li> <li>To ensure that specific actions necessary for the achievement of its objectives are clearly identified and delivered by those involved in or responsible for peatlands management or for decisions affecting their management.</li> </ul>	activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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	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 incombination 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:  Bioenergy resources contributing to economic development and sustainable growth, generating jobs for citizens, supported by coherent policy, planning and regulation, and managed in an integrated manner.	Three high level goals, of equal importance, based on the concept of sustainable development are identified:  To harness the market opportunities presented by bioenergy in order to achieve economic development, growth and jobs.  To increase awareness of the value, opportunities and societal benefits of developing bioenergy.  To ensure that bioenergy developments do not adversely impact the environment and its living and non-living resources.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 incombination 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	Targets for alternative fuel infrastructure include the following:      AFV forecasts     Electricity targets     Natural gas (CNG, LNG) targets     Hydrogen 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 incombination effects (see Section 8.2) may

Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
	alternative fuels are also included within the scope of the Framework.	Biofuels targets     LPG targets     Synthetic and paraffinic fuels targets	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:  • 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 incombination 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 2010	Outlines objectives and actions aimed at developing a strong cycle network in Ireland     Sets out 19 specific objectives, and details the 109 actions, aimed at ensuring that a cycling culture is developed	Sets a target where 10% of all journeys will be made by bike by 2020     Proposes the planning, infrastructure, communication, education and stakeholder participations measures required to implement the initiative	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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	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.	This policy set out to achieve five key goals in transport:  Reduce overall travel demand Maximise the efficiency of the transport network Reduce reliance on fossil fuels Reduce transport emissions Improve accessibility to transport  These goals remain the cornerstone of transport policy and are fully aligned to the objectives of this National Policy Framework.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.	The Plan contains 27 actions focusing on the following areas:  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 incombination 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.

Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
Tourism Policy Statement: People, Place and Policy – Growing Tourism to 2025	The main goal of this policy statement is to have a vibrant, attractive tourism sector that makes a significant contribution to employment across the country: is economically, socially and environmentally sustainable; helps promote a positive image of Ireland overseas, and is a sector in which people want to work.	The Tourism Policy Statement sets three headline targets to be achieved by 2025:  • Overseas tourism revenue of €5 billion per year • net of inflation excluding carrier receipts; • 250,000 people employed in tourism; and • 10 million overseas visitors to Ireland per year.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 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.  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.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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:	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
People Place and Policy - Growing Tourism to 2025, (DTTAS, 2014)	Growing Tourism to 2025 is a policy framework for the development of tourism within the Country.	The framework establishes the overall tourism goal of Government;  • Employment in the tourism sector will be 250,000 by 2025, compared with around 200,000 at present.  • There will be 10 million visits to Ireland annually by 2025.  The Government's ambition is that overseas tourism revenue will reach €5 billion in real terms by 2025.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Waterways Ireland Heritage Plan 2016-2020	The overarching aim of the Plan is to: "Identify and protect the unique waterways heritage and promote its sustainable use for the enjoyment of this and future generations".	Four objectives of the Plan include the following:         Objective 1: Fostering partnerships to continue building waterway heritage knowledge through storing information, undertaking research and developing best practice.         Objective 2: Promoting awareness, appreciation and enjoyment of our waterway heritage with a focus on community engagement.         Objective 3: Promoting the integrated management, conservation, protection and sustainable use of the inland navigable waterway asset.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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

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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
		Objective 4: To develop Waterways Ireland as a heritage organisation committed to achieving the aim of this plan.	objectives of the regulatory framework for environmental protection and management.
Tourism Development and Innovation – A strategy for Investment 2016-2022, (Fáilte Ireland, 2016)	This strategy sets out the framework and mechanism for the delivery of investment to cities, towns, villages, communities and businesses across the country. It identifies priorities to support innovation in the sector to retain and grow the country's competitiveness in the marketplace. Its ultimate aim is to strengthen the appeal of Ireland for international visitors.	The objectives of the Tourism Development and Innovation Strategy are:  To successfully and consistently deliver a world class visitor experience;  To support a tourism sector that is profitable and achieves sustainable levels of growth and delivers jobs;  To facilitate communities to play an enhanced role in developing tourism in their locality, thereby strengthening and enriching local communities; and  To recognise, value and enhance Ireland's natural environment as the cornerstone of Irish tourism.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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			
Eastern and Midlands Regional Economic and Spatial Strategy,	The Regional Spatial and Economic Strategy provides a long-term strategic planning and economic framework for the Eastern and Midlands Region in order to support the implementation of the National Planning Framework.	The Eastern and Midlands Regional Economic and Spatial Strategy includes provisions for its 12 constituent local authorities: Fingal County Council; Dublin City Council; South Dublin County Council; Dún Laoghaire-Rathdown County Council; Louth County Council; Kildare County Council; Meath County Council; Wicklow County Council; Laois County Council; Offaly 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 incombination 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:	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
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:  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 market presence and position enhanced tourism product base	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.

Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
NPWS Conservation Plans and/or Conservation Objectives for SACs and SPAs	Management planning for nature conservation sites has a number of aims. These include:  To identify and evaluate the features of interest for a site To set clear objectives for the conservation of the features of interest To describe the site and its management To identify issues (both positive and negative) that might influence the site To set out appropriate strategies/management actions to achieve the objectives	<ul> <li>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.</li> <li>These objectives are used when carrying out appropriate assessments for plans and projects that might impact on these sites.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 incombination 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 Laois LECP 2016-2021	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 incombination 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.
Land Use Plans (including Development Plans and Local Area Plans in force in County Laois and in other adjoining planning authorities)	Outline planning objectives for land use development (including transport and tourism objectives).     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.	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 incombination 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 Heritage Plan 2020-2025	Aims to protect, increase accessibility to, and maximise the value of our heritage by working in partnership to foster an understanding of heritage through participation, education and research.	Plan's objectives include:	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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

Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
			objectives of the regulatory framework for environmental protection and management.
Local Biodiversity Action Plans for Abbeyleix, Ballacolla, Cullahill, Emo, Killenard, Mountmellick and Portarlington	Aims to protect, conserve, enhance and restore heritage, biodiversity and ecosystem services across all spectrums.	The main objectives of biodiversity plans are:     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 incombination 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 and adjoining Counties Landscape Character Assessments	Characterises the geographical dimension of the landscape.	Identifies the quality, value, sensitivity and capacity of the landscape area.     Guides strategies and guidelines for the future development of the landscape.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 Midlands Regional Waste Management Plan 2015- 2021	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.	To manage wastes in a safe and compliant manner, a clear strategy, policies and actions are required.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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 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 incombination 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 County Council's Climate Adaptation Strategy 2019-2024	Respond to the impact that climate change is having, and will continue to have. Attempt to climate change adaptation and mitigation.	The Plans' objectives include:  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 the 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 incombination 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

Legislation, Plan, etc.	Summary of high-level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
			<ul> <li>in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</li> </ul>
Fáilte Ireland Tourism plans, strategies, including those relating to the Ireland's Ancient East brand		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. The Statutory Policies, Strategies, Plans and Programmes that provide for different projects undergo a variety of environmental assessments. These assessments ensure that environmental effects are considered, including: those arising from new and intensified uses and activities; and those arising from various sectors such as tourism.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.
Various existing, planned and emerging projects provided for by the above plans and programmes	These projects have been provided for by higher-level plans and programmes.	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.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential incombination 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.

# **Appendix II Mapping of Land Use Zoning Alternatives**

