SEA ENVIRONMENTAL REPORT

FOR

VARIATION NO. 3
TO THE
LIMERICK DEVELOPMENT PLAN
2022-2028

for: Limerick City and County Council

Comhairle Cathrach & Contae Luimnigh
Limerick City & County Council

by: CAAS Ltd.

OCTOBER 2026

Limerick City and County Council, Merchants Quay, Limerick.
CAAS Ltd., 1st Floor, 24-26 Ormond Quay Upper, Dublin.

Table of Contents

List of Abbreviations ..... **v**

Glossary ..... **vi**

Section 1 SEA: Introduction and Benefits **1**

1.1 Introduction 1
1.2 Implications for the Planning Authority 1
1.3 Why SEA? The Benefits 1

Section 2 The Variation **3**

2.1 Overview 3
2.2 Strategic work undertaken by the Council to ensure evidence-based planning 4
2.3 Relationship with other relevant Plans and Programmes 4

Section 3 SEA Methodology **5**

3.1 Introduction to the Iterative Approach 5
3.2 Appropriate Assessment and Integrated Biodiversity Impact Assessment 5
3.3 Strategic Flood Risk Assessment 6
3.4 Scoping 6
3.5 Alternatives 6
3.6 Environmental Report 6
3.7 SEA Statement 7

Section 4 Environmental Baseline **9**

4.1 Introduction 9
4.2 National Reporting on the Environment 9
4.3 Sustainable Development Goals 9
4.4 Likely Evolution of the Environment in the Absence of a new Variation 9
4.5 Natural Capital and Ecosystem Services 11
4.6 Biodiversity and Flora and Fauna 12
4.7 Population and Human Health 23
4.8 Soil 25
4.9 Water 30
4.10 Air and Climatic Factors 42
4.11 Material Assets 47
4.12 Cultural Heritage 57
4.13 Landscape 61

Section 5 Strategic Environmental Objectives **64**

Section 6 Description of Alternatives **69**

6.1 Introduction 69
6.2 Limitations in Available Alternatives 69
6.3 Description of Alternatives Considered 69

Section 7 Evaluation of Alternatives **70**

7.1 Introduction 70
7.2 Methodology 70

7.3 Detailed Assessment of Alternatives....72
7.4 Reasons for Choosing the Selected Alternatives in light of Other Reasonable Alternatives Considered....77

Section 8 Evaluation of the Variation 78

8.1 Introduction....78
8.2 Cumulative Effects....80
8.3 Overall Evaluation (including transboundary) 82
8.4 Appropriate Assessment....86
8.5 Strategic Flood Risk Assessment....86
8.6 Interrelationship between Environmental Components....86
8.7 Assessment Against SEA Framework 88

Section 9 Mitigation Measures.... 91

9.1 Introduction....91
9.2 Strategic work undertaken by the Council to ensure evidence-based planning 91
9.3 Consideration of Alternatives....91
9.4 Integration of individual provisions into the text of the Development Plan 92
9.5 Integration of environmental considerations into the zoning provisions and text of the Variation....92

Section 10 Monitoring Measures 108

10.1 Introduction....108
10.2 Indicators and Targets....108
10.3 Sources....108
10.4 Reporting 109

Appendix I Relationship with Legislation and Other Policies, Plans and Programmes.... 114

Appendix II Further Environmental Baseline Detail.... 153

Appendix III Non-Technical Summary..... Separately bound

List of Figures

Figure 4.1 European sites within and within a 15 km buffer of Limerick 17
Figure 4.2 NHAs and pNHAs within and within a 15 km of Limerick 18
Figure 4.3 CORINE Land Cover Mapping 2018 19
Figure 4.4 Areas likely to contain Annex I Habitats 20
Figure 4.5 Entries to the WFD RPA for Shellfish Areas and WFD RPA for Salmonid Waters 21
Figure 4.6 Margaritifera Sensitive Areas 22
Figure 4.7 Soil Types 27
Figure 4.8 County Geological Sites and Source Protection Areas 28
Figure 4.9 Landslide Susceptibility and Landslide Events 29
Figure 4.10 WFD Surface and Ground Waterbodies Status (2019-2024) 38
Figure 4.11 Entries to the WFD RPA for Nutrient Sensitive Areas and WFD RPA for Drinking Water 39
Figure 4.12 Groundwater Vulnerability 40
Figure 4.13 Groundwater Productivity 41
Figure 4.14 Mineral Localities 56
Figure 4.15 Archaeological Heritage 59
Figure 4.16 Architectural Heritage 60
Figure 4.17 Landscape Designations 63

List of Tables

Table 3.1 Checklist of Information included in this Environmental Report 8
Table 4.1 WFD Surface Waterbodies Status (2019-2024) and Significant Pressures 34
Table 4.2 Wastewater treatment capacity register for Limerick 51
Table 4.3 Drinking water treatment capacity register for Limerick 53
Table 5.1 Strategic Environmental Objectives (SEOs), Indicators and Targets 65
Table 7.1 Strategic Environmental Objectives 70
Table 7.2 Criteria for appraising the effect of the Alternatives on SEOs 72
Table 7.3 Effects common to Variations adopting each of the alternatives 72
Table 7.4 Assessment of Land Use Zoning Approach Alternatives against SEOs 77
Table 8.1 Strategic Environmental Objectives 79
Table 8.2 Criteria for appraising the effect of the Variation provisions on SEOs 80
Table 8.3 Overall Evaluation (including transboundary) – Effects arising from the Variation 83
Table 8.4 Presence of Interrelationships between Environmental Components 87
Table 9.1 Integration of Environmental Considerations into the Variation and existing Plan 94
Table 10.1 Indicators, Targets, Sources and Remedial Action 110

List of Abbreviations

AA	Appropriate Assessment
ACA	Architectural Conservation Area
CAFE	Cleaner Air for Europe
CFRAM	Catchment Flood Risk Assessment and Management
CGS	County Geological Site
CORINE	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
DCEE	Department of Climate, Energy and Environment
DHLGH	Department of Housing, Local Government and Heritage
DZ	Dercarbonising Zone
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency
EQS	Environmental Quality Standard
ELVs	Emission Discharge Values
EU	European Union
GFC	Gross Final Consumption
GSI	Geological Survey of Ireland
LCA	Landscape Character Assessment
LULUCF	Land Use, Land Use Change and Forestry
NECP	National Energy and Climate Plan
NHA	Natural Heritage Area
NIAH	National Inventory of Architectural Heritage
NO_2	Nitrogen dioxide
NTA	National Transport Authority
OPW	Office of Public Works
O_3	Ozone
$PM_{2.5}$	Fine particulate matter
pNHA	proposed Natural Heritage Area
PAS	Priority Action Substance
RAL	Remedial Action List
RED	Renewable Energy Directive
RBD	River Basin District
RBMP	River Basin Management Plan
RMP	Record of Monuments and Places
RPA	Register of Protected Areas
RPS	Record of Protected Structures
RSES	Regional Spatial and Economic Strategy
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment
SEO	Strategic Environmental Objective
SI No.	Statutory Instrument Number
SPA	Special Protection Area
SuDS	Sustainable urban Drainage systems
WHO	World Health Organisation
WFD	Water Framework Directive
WRZ	Water Resource Zone
WSS	Water Supply Scheme
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

Glossary

Appropriate Assessment

The obligation to undertake Appropriate Assessment (AA) derives from Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC. AA is a focused and detailed impact assessment of the implications of a strategic action (such as a plan or programme) or project, alone and in combination with other strategic actions and projects, on the integrity of a European Site in view of its conservation objectives.

Biodiversity and Flora and Fauna

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

Flora is all the plants found in a given area.

Fauna is all the animals found in a given area.

Environmental Problems

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

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

Environmental Vectors

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

Mitigate

To make or become less severe or harsh.

Mitigation Measures

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

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

Natural Heritage

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

Protected Structure

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

Recorded Monument

A monument included in the list and marked on the map which comprises the Record of Monuments and Places that is set out county by county under Section 12 of the National Monuments (Amendment) Act, 1994 by the Archaeological Survey of Ireland. The definition includes Zones of Archaeological Potential in towns and all other monuments of archaeological interest which have so far been identified. Any works at or in relation to a recorded monument requires two months' notice to the Department of Housing, Local Government and Heritage 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 Variation and the alternatives can be evaluated in order to help identify which provisions would be likely to result in significant environmental effects and where such effects would be likely to occur, if - in the case of adverse effects - unmitigated.

Section 1 SEA: Introduction and Benefits

1.1 Introduction

This is the Strategic Environmental Assessment (SEA) Environmental Report for Variation No. 3 to the Limerick Development Plan 2022-2028, as varied. It has been prepared by CAAS Ltd. on behalf of Limerick City and County Council. The purpose of this report is to provide a clear understanding of the likely environmental consequences of decisions regarding the making and implementation of the Variation.

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

The SEA has been undertaken in order to comply with the European SEA Directive[1], which introduced the requirement that SEA be carried out on plans and programmes, and variations to these, 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 Variation. The findings of the SEA are expressed in this Environmental Report, an earlier version of which accompanied the original Proposed Variation on public display and has been updated following consultation, and identifies how environmental considerations were integrated into the Variation and how alternatives for the Variation were considered.

The planning authorities have taken into account the findings of this report and other related SEA output during the Variation preparation process.

Following adoption of the Variation, an SEA Statement is prepared that summarises, inter alia, how environmental considerations have been integrated into the Variation.

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.

SEA has enabled the planning authority to direct development under the Variation towards what are generally robust, well-serviced and connected areas – thereby facilitating the general avoidance of incompatible development in the most sensitive, least well-serviced and least well-connected areas. This approach will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation.

[1] Directive 2001/42/EC of the European Parliament and of the Council of Ministers, of 27th June 2001, on the assessment of the effects of certain plans and programmes on the environment, transposed into Irish Law through regulations including the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (SI No. 435 of 2004), as amended, and the European Union (Land Use Planning – Strategic Environmental Assessment) Regulations 2025 (SI No. 456 of 2025).

Compact development can be accompanied by placemaking initiatives to enable Limerick to become a more desirable place to live, work and visit.

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

SEA provides greater certainty to the public and to developers. Plans, and variations to 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.

Section 2 The Variation

2.1 Overview

The purpose of Variation No. 3 is to accelerate housing delivery and respond to recent changes in National planning policy, namely the publication of the National Planning Framework (NPF) First Revision and the publication of the following Section 28 Ministerial Guidelines:

- NPF Implementation: Housing Growth Requirements, Guidelines for Planning Authorities (2025);
- Planning Design Standards for Apartments, Guidelines for Planning Authorities (2025); and
- Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024).

In addressing the housing growth requirements and other changes to National planning policy, the Variation provides changes to the Volume 1, Written Statement and appendices, Volume 2a, Level 1 Limerick City and Suburbs (in Limerick) Mungret and Annacotty, Maps and Settlement Capacity Audit, Volume 6, Housing Strategy and Housing Need Demand Assessment, and the Building Height Strategy for Limerick City of the Limerick Development Plan 2022-2028 to address specific immediate updates that are needed to implement national policy.

Variation No. 3 provides changes as follows:

- Volume 1, written statement and appendices, including changes to Chapter 1 Introduction, Vision and Strategic Overview, Chapter 2 Core Strategy, Chapter 3 Spatial Strategy, Chapter 4 Housing, Chapter 5 A Strong Economy, Chapter 6 Environment, Heritage, Landscape and Green Infrastructure, Chapter 7 Sustainable Mobility and Transport, Chapter 8 Infrastructure, Chapter 9 Climate Action, Flood Risk and Transition to Low Carbon Economy, Chapter 10 Sustainable Communities and Social Infrastructure, Chapter 11 Development Management Standard, Chapter 12 Land Use Zoning Strategy, Chapter 13 Implementation and Monitoring and Appendix 1: Section 28 Guidelines Compliance.

- Volume 2a Maps and Settlement Capacity Audit, including:
  - Amendments to land use zoning for a number of identified lands to facilitate residential uses and for strategic planned projects within the boundary of Limerick City and Suburbs including Mungret and Annacotty.
  - Amendments to land use zoning to reflect developments that have occurred since the adoption of the Plan and to capture the current land use context within the boundary of Limerick City and Suburbs, including Mungret and Annacotty.
  - Amendments to the Settlement Capacity Audit maps and tables for Limerick City and Suburbs reflective of zoning changes and the Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024).

- Volume 6, Supporting Strategies:
  - Updated Housing Strategy and Housing Need Demand Assessment, to inform policy for the remaining period of the Limerick Development Plan to 2028 and beyond.
  - Amendments to Policy in the Building Height Strategy and subsequent changes to Development Plan objectives in so far as it relates to building height.

For additional detail, refer to Variation No. 3 as made.

The Variation is also responding to Pillar 1: Activating Supply as set out in the Government Action Plan on Housing Supply and Targeting Homelessness" Delivering Homes, Building Communities, 2025-2030 (November 2025) The zoning of sufficient land is seen as a key enabler to delivery.

For the purposes of clarity and the avoidance of doubt, the Variation has taken due account of the relevant National Planning Policy Guidance, noting that under section 27 of the Planning and Development Act 2024, section 28 guidelines under the 2000 Act are deemed to be National Planning Policy Guidance until a National Planning Statement is issued.

Zoning in this variation relates to lands within the settlement boundary of Limerick City and Suburbs including Annacotty and Mungret only. Further variations will be progressed concentrating on accelerating housing in zoned settlements across the county as appropriate and in due course. A full

review of the Limerick Development Plan 2022-2028 will take place subsequently, in accordance with the provisions of the Planning and Development Act 2024, as introduced in the recently commenced sections of the Planning and Development Act, 2024 (as amended). It should be noted that this variation does not constitute a comprehensive review of all relevant policies, objectives, or guidance of the Limerick Development Plan.

2.2 Strategic work undertaken by the Council to ensure evidence-based planning

In preparing the Variation, information relating to various sectors, from different Departments within the Council and from different bodies and organisations, was gathered and analysed, contributing towards the development of evidence-led provisions. This work included: preparing this SEA Environmental Report; preparing a Screening for Appropriate Assessment; preparing an Addendum to the existing Plan's Strategic Flood Risk Assessment; considering information on capacity/delivery with respect to existing and planned infrastructure; and updating the Building Heights Strategy, the Housing Need Demand Assessment and Housing Strategy. The undertaking of the SEA process was part of this strategic work and contributed towards the integration of environmental considerations into the Variation as detailed in Section 9 of this report.

2.3 Relationship with other relevant Plans and Programmes

It is important to note that when reading the Variation, the provisions of the Development Plan are relevant and, in this regard, both documents should be read in tandem with each other.

The existing Development Plan to be varied sits within a hierarchy of statutory documents setting out public policy for, among other things, land use planning, infrastructure, sustainable development, tourism, environmental protection and environmental management. The Variation must comply with relevant higher-level strategic actions and will, in turn, guide lower-level strategic actions. These documents include plans and programmes such as those detailed in Appendix I[2] (see also, Section 4 "Environmental Baseline", Section 5 "Strategic Environmental Objectives", Section 6 "Description of Alternatives" and Section 9 "Mitigation Measures"). These documents have been subject to their own environmental assessment processes, as relevant.

The First Revision of the National Planning Framework sets out Ireland's planning policy direction up to 2040. The National Planning Framework is to be implemented through Regional Spatial and Economic Strategies and lower tier Development Plans and Urban Area Plans. The Regional Spatial and Economic Strategy for the Southern 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, as relevant and appropriate, be implemented through the Development Plan to be varied.

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

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

Section 3 SEA Methodology

3.1 Introduction to the Iterative Approach

The preparation of the Variation, SEA, Screening for Appropriate Assessment (AA; see Section 3.2 below), and Strategic Flood Risk Assessment (SFRA; see Section 3.3 below) have taken place concurrently and the findings of the SEA and SFRA have informed the Variation.

3.2 Appropriate Assessment and Integrated Biodiversity Impact Assessment

Appropriate Assessment (AA) Screening has been undertaken alongside the making of the Variation. The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC). The Screening for AA for the Variation has concluded that the any likelihood for significant effect to any European site as a result of the Variation can be ruled out. The preparation of the Variation, SEA and Screening for AA has taken place concurrently and the findings of the Screening for AA have informed the SEA.

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 Variation. 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

- 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; contains all biodiversity-relevant information, data, figures and maps relevant for this level of assessment; and has been informed by the AA findings.

Communication and consultation

- Submissions received are taken on board.
- The preparation of the Variation, SEA and Screening for AA have taken place concurrently and the findings of the Screening for AA have informed the SEA.

3.3 Strategic Flood Risk Assessment

A Strategic Flood Risk Assessment (SFRA) has been undertaken as part of the preparation of the Variation. Requirements in relation to SFRA are provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (Department of Environment and Office of Public Works, 2009) and associated Department of the Environment, Community and Local Government Circular PL2/2014. The SFRA has informed the provisions of the Variation.

3.4 Scoping

The scope of environmental issues to be dealt with by the SEA together with the level of detail to which they are addressed was broadly decided upon taking into account the collection of environmental baseline data and input from environmental authorities. Scoping allowed the SEA to become focused upon key issues relevant to the environmental components that are specified under the SEA Directive[3].

All relevant environmental authorities[4] 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. Submissions received from the Environmental Protection Agency and Clare County Council have been taken into account in the undertaking of the SEA.

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

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 Variation are identified and assessed in Sections 6 and 7.

3.6 Environmental Report

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

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

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 Variation that was placed on public display earlier in the process.

The Environmental Report is required to contain the information specified in Schedule 2B of the Planning and Development (SEA) Regulations 2004, as amended, and Schedule 1 of the European Union (Land Use Planning – SEA) Regulations 2025 (see Table 3.1).

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

[3] 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.

[4] Environmental Protection Agency, Minister for Climate, Energy and the Environment, Minister for Housing, Local Government and Heritage, Minister for Agriculture, Food and the Marine, Clare County Council, Cork County Council, Kerry County Council and Tipperary County Council.

3.7 SEA Statement

On finalisation of the Variation, an SEA Statement will be prepared that includes information on:

- How environmental considerations have been integrated into the Variation, highlighting the main changes to the Variation 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 Variation in the light of the other alternatives, identifying the other alternatives considered, commenting on their potential effects and explaining why the Variation as adopted was selected; and
- The measures decided upon to monitor the significant environmental effects of implementing the Variation.

Table 3.1 Checklist of Information included in this Environmental Report

Information Required to be included in the Environmental Report	Corresponding Section of this Report
(a) an outline of the contents and main objectives of the plan or programme and relationship with other relevant plans;	Sections 2, 5 and 8
(b) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme	Section 4
(c) the environmental characteristics of areas likely to be significantly affected	Sections 4, 7 and 8
(d) any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to the Birds Directive or Habitats Directive	Section 4 and Appendix II
(e) the environmental protection objectives, established at international, European Union or national level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation	Sections 5, 7, 8, 9 and Appendix I
(f) the likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors	Sections 7 and 8
(g) the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan	Section 9
(h) an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information	Sections 3, 6, 7 and 8
(i) a description of the measures envisaged concerning monitoring of the significant environmental effects of implementation of the plan or programme	Section 10
(j) a non-technical summary of the information provided under the above	Appendix III Non-Technical Summary

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[5].

4.2 National Reporting on the Environment

The EPA's *"Ireland's State of the Environment Report 2024"* 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 five key environmental priorities identified by the report are:

- "Delivering a national policy position on the environment - we urgently need to have a national policy position on the environment to address the complex interactions, synergies and trade-offs across environmental policy areas and to deal with its interactions with other policy domains.
- Driving policy implementation - we must rigorously implement existing environmental plans and programmes to achieve the benefits that they were developed to deliver.
- Transforming our systems - transformation of our energy, transport, food and industrial sectors is critical to achieving a sustainable future.
- Scaling up investment in infrastructure - investment in water, energy, transport and waste management infrastructure is essential to protect the environment now and into the future.
- Protecting the environment to protect our health - protecting the environment is key to protecting our health and we must act to reduce the modifiable risks to our health from environmental exposures."

4.3 Sustainable Development Goals

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

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

In the absence of a Variation, the framework for development for the relevant settlements would be primarily provided by the existing Development Plan, as well as other related documents. There would be no Variation to provide additional detail beyond that provided

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

already through the existing planning framework as how to achieve sustainable development and environmental protection and management.

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

- Contribution towards protection of ecology (including designated sites, ecological connectivity, habitats) by facilitating development of lands (including those within and adjacent to Limerick city centre and suburbs, and Limerick's other settlements), through both land use zoning and adherence to national housing policy guidelines, 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 Limerick's settlements 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.
- 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 Limerick city centre and suburbs, and Limerick's other settlements), through both land use zoning and adherence to national housing policy guidelines, 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 Limerick's settlements and beyond.
- Contribution towards the protection of human health by facilitating development of lands (including those within and adjacent to Limerick city centre and suburbs, and Limerick's other settlements), through both land use zoning and adherence to national housing policy guidelines, 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 Limerick's settlements and beyond.
- Contributes towards protection of human health as a result of contributing towards the protection of natural capital including environmental vectors, such as 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 Limerick city centre and suburbs, and Limerick's other settlements), through both land use zoning and adherence to national housing policy guidelines, 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 Limerick's settlements and beyond.
- Contribution towards the protection of the environment from contamination by requiring the highest standards of remediation and, where appropriate, consultations with the EPA and other relevant bodies in order 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 Limerick city centre and suburbs, and Limerick's other settlements), through both land use zoning and adherence to national housing policy guidelines, 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 Limerick's settlements and beyond.
- Contributions towards the protection of water resources including the status of surface and groundwaters and water-based designations.
- Contribution towards flood risk management and appropriate drainage.
- Contribution towards compliance with national and regional water services and waste management policies.
- Contribution towards increase in renewable energy use by facilitating renewable energy and electricity transmission infrastructure developments.
- Contribution towards limits in increases in energy demand from the transport sector by facilitating sustainable compact growth.
- Contribution towards reductions in average energy consumption per capita including promoting sustainable compact growth, sustainable mobility, sustainable design and energy efficiency.
- Contribution towards climate mitigation and adaptation by facilitating compact development of lands (including those within and adjacent to Limerick city centre and suburbs, and Limerick's other settlements), through both land use zoning and adherence to national housing policy guidelines, 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 Limerick's settlements and beyond.
- In combination with other plans, programmes etc., contribution towards the objectives of the wide policy framework relating to climate mitigation and adaptation, and associated contribution towards maintaining and improving

air quality and managing noise levels, including through measures relating to:
    - Sustainable compact growth;
    - Sustainable mobility, including walking, cycling and public transport;
    - Drainage, flood risk management and resilience;
    - Sectors including energy and buildings; and
    - Sustainable design, energy efficiency and green infrastructure.
- Contributes towards protection of cultural heritage elsewhere by facilitating compact development.
- Contributes towards protection of cultural heritage by facilitating brownfield development and regeneration.
- Contributes towards protection of wider landscape and landscape designations by facilitating compact development.

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

- Arising from both construction and operation of development and associated infrastructure:
    - Loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna;
    - Habitat loss, fragmentation and deterioration, including patch size and edge effects; and
    - Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species such as birds and bats.
- Potential interactions with human health if effects arise 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 and coastal 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 as varied and aiming to reduce carbon emissions in line with local, national and European environmental objectives.
- Potential conflicts between transport emissions, including those from cars, and air quality.
- Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors.
- Potential conflicts with climate adaptation measures including those relating to flood risk management.
- Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.
- Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.

4.5 Natural Capital and Ecosystem Services

Natural capital comprises renewable and non-renewable resources (e.g. plants, animals, air, water, soils, minerals) that combine to yield a flow of ecosystem services that provide benefits to people. These benefits can include clean air and water, a stable climate, protection from floods, food, resources for fuel, building materials, clothes and medicines, recreation. Managing natural capital so that it can continue to deliver the ecosystem services that provide these benefits is important in order to ensure sustainable development. Unmanaged natural capital risks the continued degradation and depletion of these assets, and in turn, of their capacity to provide the economy and society with the ecosystem benefits that they depend on. These services also regulate climate, regulate water flows (e.g. through wetlands and forests), sequester and store carbon in peatlands and improve soil quality for crops.

Ecosystems are multifunctional communities of living organisms interacting with each other and their environment. Ecosystems provide a series of services for human well-being (ecosystem services) either directly or indirectly contributing towards human wellbeing. There are four main types; provisioning, regulating, supporting and cultural services. Provisioning services are the products obtained from ecosystems such as food, fresh water, wood, fibre, genetic resources and medicines. Regulating services are defined as the benefits

obtained from the regulation of ecosystem processes such as climate regulation, natural hazard regulation, water purification and waste management, pollination or pest control. Support services highlight the importance of ecosystems to provide habitat for migratory species and to maintain the viability of gene-pools. Cultural services include non-material benefits that people obtain from ecosystems such as spiritual enrichment, intellectual development, recreation and aesthetic values[6].

Various provisions relating to ecosystem services have been included in the Variation.

The following natural capital and ecosystem services issues are relevant to this SEA and have been taken into account in the provisions of the Variation and/or the existing Limerick Development 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.

4.6 Biodiversity and Flora and Fauna

4.6.1 Overview

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

Ecological designations within and surrounding the Variation area include:

- Special Areas of Conservation (SACs)[7];
- Special Protection Areas (SPAs)[8];
- Natural Heritage Areas (NHAs) and Proposed Natural Heritage Areas (pNHAs)[9];
- Certain entries to the Water Framework Directive Register of Protected Areas[10]; and
- Tree Preservation Orders (TPOs)[11].

Protected Species within and surrounding the Variation area include:

- Annex IV (Habitats Directive) species of flora and fauna, and their key habitats (i.e. breeding sites and resting places), which are strictly protected wherever they occur, whether inside or outside the above sites, e.g. otter and bats;
- Other species of flora and fauna and their key habitats which are protected under the Wildlife Acts, 1976-2000; and
- 'Protected species and natural habitats' as defined in the European Liability Directive (2004/35/EC) and European Communities (Environmental Liability) Regulations, 2008, including: Birds Directive – Annex I species and other regularly occurring migratory species, and their habitats and Habitats Directive – Annex I habitats, Annex II species and their habitats, and Annex IV species and their breeding sites and resting places.

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

- CORINE land cover mapping (including areas likely to contain a habitat listed in Annex 1 of the Habitats Directive)[12];
- Trees, groups of trees and woodlands;
- Watercourses and wetlands;
- Other relevant County Development Plans designations;
- The EPA's Framework National Ecological Network for Ireland[13];
- Downstream coastal and marine biodiversity, including relevant SACs, SPAs, NHAs, pNHAs, Margaritifera Sensitive Areas and Water Framework Directive Registers of Protected Areas; and
- Other sites of high biodiversity value or ecological importance as identified by, for example, the Department of Agriculture, Food and the Marine (badger sets), relevant datasets from the National Biodiversity Data Centre and BirdWatch

[6] https://biodiversity.europa.eu/topics/ecosystem-services
[7] For more detail refer to Section 4.6.2
[8] For more detail refer to Section 4.6.2
[9] For more detail refer to Section 4.6.3
[10] For more detail refer to Section 4.6.5
[11] TPOs are a planning mechanism whereby individual trees or groups of trees can be identified as important and protected by a TPO. There are locations within the Plan area with trees protected by the Order. There are several TPOs designated by the Limerick Development Plan. Refer to Local Authority for more information.
[12] The CORINE land cover mapping classifies land cover under various headings. This dataset allows for the identification of lands that are likely to be most valuable to biodiversity including those which are likely to contain a habitat listed in Annex 1 of the Habitats Directive e.g., natural grasslands, peat bogs, salt marshes. CORINE Land Cover is a map of the European environmental landscape based on interpretation of satellite images. Land cover is the observed physical cover, as seen from the ground or through remote sensing, including for example natural or planted vegetation, water and human constructions which cover the earth's surface.
[13] The EPA's Framework National Ecological Network provides a classification of the relative importance of areas by virtue of the biodiversity and flora that they contain and the connectivity they provide. Many of the areas identified are corridors.

Ireland's 'Important Bird Areas' (Crowe *et al.*, 2009)[14].

The Limerick Biodiversity Action Plan 2025-2030 provides a framework for biodiversity action for the next five years. A key aim of the plan is to focus the efforts and resources of Limerick City and County Council, public sector bodies, nature conservation groups and others to protect and enhance biodiversity and halt biodiversity loss in Limerick and to further incorporate the ecosystem services that biodiversity provides. The Limerick Biodiversity Action Plan puts forward an ambitious programme of a sixty-six actions to reverse the decline in biodiversity by 2030. The actions are based upon recommendations made in ecological studies and on proposals put forward by the Limerick Biodiversity Forum, nature conservation groups, NGOs, members of the public, Strategic Policy Committee members and various Council Departments. The actions in this plan are centred on five objectives which mirror the objectives of the 4th National Biodiversity Action Plan:

- Adopt a Whole of Limerick City and County Council, Whole of Society Approach to Biodiversity
- Meet Urgent Conservation and Restoration Needs
- Secure Nature's Contribution to Current and Future Generations
- Enhance the Evidence Base for Action on Biodiversity
- Strengthen Limerick's Contribution to National and Regional Biodiversity Initiatives

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

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

Man-made habitats within Limerick[15] can also include important biodiversity features. Gardens provide habitats for a range of wildlife including various bird species, invertebrates such as bees and butterflies and mammals such as hedgehogs, mice, rats and foxes. These species move around between gardens using hedgerows and vegetated areas. These urban green spaces are of importance as they form part of a network of green spaces across Limerick including gardens, parks, graveyards, amenity walks, railway lines and patches of woodland and scrub within which animals and plants continue to thrive.

Ecological islands or areas of habitat that are not connected to surrounding ecologically valuable habitats can also be important.

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

Important areas for biodiversity considered by the SEA included:

- The wildlife corridor surrounding the Lower River Shannon SAC, and associated importance for the Lesser Horseshoe Bat; and
- Groody Valley wildlife corridor and flood management zone, including the Groody River, supporting a variety of habitats and species, including Annex I habitat Petrifying springs with tufa formation and bats.

4.6.2 European Sites

European sites comprise Special Areas of Conservation[16] (SACs) and Special Protection

[14] Including: available habitats mapping at a suitable scale; trees; groups of trees and woodlands; and hedgerows.

[15] i.e. the area to which the Variation relates

[16] 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

Areas[17] (SPAs). Such sites within a 15 km buffer around Limerick are mapped on Figure 4.1. There are 15 European sites designated within Limerick (12 SACs and three SPAs):

- Curraghchase Woods SAC (Site Code: 000174);
- Barrigone SAC (Site Code: 000432);
- Tory Hill SAC (Site Code: 000439);
- Galtee Mountains SAC (Site Code: 000646);
- Clare Glen SAC (Site Code: 000930);
- Glen Bog SAC (Site Code: 001430);
- Glenstal Wood SAC (Site Code: 001432);
- Ballyhoura Mountains SAC (Site Code: 002036);
- Carrigeenamronety Hill SAC (Site Code: 002037);
- Lower River Shannon SAC (Site Code: 002165);
- Blackwater River (Cork/Waterford) SAC (Site Code: 002170);
- Askeaton Fen Complex SAC (Site Code: 002279);
- River Shannon and River Fergus Estuaries SPA (Site Code: 004077);
- Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (Site Code: 004161); and
- Slievefelim to Silvermines Mountains SPA (Site Code: 004165).

Two of these sites, the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA, are situated partially within Limerick City.

All European sites within and within 15 km buffer around Limerick and their sensitive features are listed in the Appendix II of this report. For more detail on European sites please refer to the AA document that accompanies the Variation and this SEA 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 semi-natural and natural habitats, landforms or geomorphological features, wildlife plant and animal species or a diversity of these natural attributes. NHAs are designated under the Wildlife (Amendment) Act 2000. Proposed NHAs (pNHAs) were published on a non-statutory basis in 1995, but have not since been statutorily proposed or designated.

There are four NHAs designated within or partially within Limerick:

- Grageen Fen And Bog NHA (Site Code: 002186);
- Moyreen Bog NHA (Site Code: 002361);
- Carrigkerry Bogs NHA (Site Code: 002399);
- Lough Gay Bog NHA (Site Code: 002454);

There are 37 pNHAs situated within or partially within Limerick:

- Curraghchase Woods pNHA (Site Code: 000174);
- Adare Woodlands pNHA (Site Code: 000429);
- Ardagh Church, Newcastlewest (Disused) pNHA (Site Code: 000430);
- Barrigone pNHA (Site Code: 000432);
- Castleconnell (Domestic Dwelling, Occupied) pNHA (Site Code: 000433);
- Inner Shannon Estuary - South Shore pNHA (Site Code: 000435);
- Herbertstown Fen pNHA (Site Code: 000436);
- Lough Gur pNHA (Site Code: 000437);
- Loughmore Common Turlough pNHA (Site Code: 000438);
- Tory Hill pNHA (Site Code: 000439);
- Galtee Mountains pNHA (Site Code: 000646);
- Clare Glen pNHA (Site Code: 000930);
- Knockanavar Wood pNHA (Site Code: 000961);
- Dromore & Bleach Loughs pNHA (Site Code: 001030);
- Tarbert Bay pNHA (Site Code: 001386);
- Ballymorrisheen Marsh pNHA (Site Code: 001425);
- Ballinvirick Marsh pNHA (Site Code: 001427);
- Cappagh Fen pNHA (Site Code: 001429);
- Glen Bog pNHA (Site Code: 001430);
- Glenastar Wood pNHA (Site Code: 001431);
- Glenstal Wood pNHA (Site Code: 001432);
- Gorteennamrock pNHA (Site Code: 001433);
- Heathfield Wood pNHA (Site Code: 001434);
- Sturamus Island pNHA (Site Code: 001436);
- Ballyvorheen Bog pNHA (Site Code: 001849);
- Dromsallagh Bog pNHA (Site Code: 001850);
- Bilboa And Gortnageragh River Valleys pNHA (Site Code: 001851);
- Skoolhill pNHA (Site Code: 001996);
- Knockalisheen Marsh pNHA (Site Code: 002001);
- Glenacurrane River Valley pNHA (Site Code: 002035);
- Carrigeenamronety Hill pNHA (Site Code: 002037);
- Fergus Estuary And Inner Shannon, North Shore pNHA (Site Code: 002048);
- Ballintlea Wood pNHA (Site Code: 002086);
- Ballynacourty Wood pNHA (Site Code: 002087);
- Mountrussell Wood pNHA (Site Code: 002088);
- Ballyroe Hill & Mortlestown Hill pNHA (Site Code: 002089); and
- Castleoliver Woods pNHA (Site Code: 002090).

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.

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

There are no NHAs designated within Limerick City. There are two pNHAs situated - within or partially/adjacent to Limerick City: Fergus Estuary and Inner Shannon, North Shore pNHA and Knockalisheen Marsh pNHA.

All NHAs and pNHAs within and within a 15 km buffer zone of Limerick are mapped on Figure 4.2 and listed in the Appendix II of this report.

4.6.4 Land Cover

Land cover is the observed physical cover, as seen from the ground or through remote sensing, including for example natural or planted vegetation, water and human constructions which cover the earth's surface.

The CORINE 2018[18] mapping (shown on Figure 4.3 identifies that the most dominant land cover types in Limerick are pastures.

The most dominant land cover within and surrounding Limerick City area (also mapped on Figure 4.3) are urban fabric, water courses associated with the River Shannon adjacent to the north-western parts of the City and industrial and commercial lands within and adjacent to the western parts of Limerick City area.

Categories from CORINE mapping that may indicate areas with the potential for Annex I habitats (see Figure 4.4) include:

- Peat bogs
- Mixed forest;
- Broad-leaved forest;
- Moors and heathlands;
- Natural grassland;
- Water bodies;
- Water courses
- Estuaries;
- Intertidal flats;
- Inland marshes; and
- Salt marshes.

The area associated with the River Shannon within and adjacent to Limerick City is likely, considering the CORINE data, to contain Annex I Habitats (as mapped on Figure 4.4).

4.6.5 Register of Protected Areas

In response to the requirements of the Water Framework Directive (WFD) a number of water bodies or parts of water bodies that must have extra controls on their quality by virtue of how their waters are used by people and by wildlife have been listed on Registers of Protected Areas (RPAs).

Entries to the RPAs within and adjacent to Limerick, designated by virtue of their value to biodiversity include shellfish waters[19] (including coastal waters and intersecting surface and groundwaters) are shown on Figure 4.5. Areas of shellfish waters can be found adjacent to Limerick in the West Shannon Ballylongford catchment.

The River Feale (in the west of Limerick) and the River Aherlow (in the east of Limerick) are designated under the WFD Salmonid River Regs (S.I. 293 only) and associated WFD Surface Water and Groundwater in Salmonid Regs, as mapped on Figure 4.5.

There are also a number of water-dependent habitats within the area that have been listed on RPAs relating to biodiversity – these relate to designated SACs and SPAs (see Section 4.6.2) and associated surface and groundwaters.

RPAs designated by virtue of their value to humans are addressed under Section 4.9.6.

4.6.6 Salmonid Waters

The Salmonid Regulations (S.I. 293/1988) designate the waters capable of supporting salmon *(Salmo salar*), trout (*Salmo trutta*), char (*Salvelinus*) and whitefish (*Coregonus*) as protected. 34 (no.) rivers, tributaries and lakes

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

[19] In order to protect existing shellfish waters and to ensure the Shellfish Waters Directive (2006/113/EC). The purpose of this Directive is to put in place concrete measures to protect waters, including shellfish waters, against pollution and to safeguard certain shellfish populations from various harmful consequences, resulting from the discharge of pollutant substances into the sea. The future protection of these areas, the European Union introduced the Directive applies to the aquatic habitat of bivalve and gastropod molluscs only (includes oysters, mussels, cockles, scallops and clams). It does not include crustaceans such as lobsters, crabs and crayfish.

are listed and protected under these Regulations that prescribe quality standards for salmonid waters, the sampling programmes and the methods of analysis and inspection to be used by local authorities to determine compliance with the standards. Sections of the Feale and the River Aherlow are listed under the Regulations (mapped on Figure 4.5).

4.6.7 Margaritifera Sensitive Areas

Freshwater pearl mussel is a globally threatened, long-lived and extremely sensitive species that can be impacted by many forms of pollution, particularly sediment and nutrient pollution and by hydrological and morphological changes, which may arise from developments, activities or changes in any part of the catchment. There are two species of freshwater pearl mussel in Ireland (*Margaritifera margaritifera* and *Margaritifera durrovensis*) and both are protected under Annex II and Annex V of the EU Habitats Directive. Categories of Freshwater Pearl Mussel Catchments (Margaritifera Sensitive Areas) identified downstream and adjacent to Limerick (mapped on Figure 4.6) comprise:

- Catchments of other extant populations (Feale catchment);
- Catchments of other extant populations (Suir-Aherlow catchment);
- Catchments with previous records of Margaritifera, but current status unknown (Feale – Galey catchment);
- Catchments of SAC populations listed in S.I. 296 of 2009 (Munster Blackwater – Allow catchment); and
- Catchments of SAC populations listed in S.I. 296 of 2009 (Munster Blackwater catchment).

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

4.6.8 Existing Problems

Ireland's Article 17 report on the Status of EU Protected Habitats and Species in Ireland (NPWS/DHLGH, 2025) provides the most recent assessment of EU-protected habitats and species in Ireland. The report confirms that the overall conservation status of habitats remains poor, with 90% assessed as unfavourable and over half showing declining trends. While some species are better - 58% are in favourable status and many exhibit stable or improving trends - the report highlights that significant pressures persist, despite ongoing positive actions and targeted conservation measures. The main categories of pressures and threats identified in the 2025 report include:

- Agriculture and land-use change
- Forestry practices
- Extraction of resources (minerals, peat, non-renewable energy resources)
- Energy production and associated infrastructure development
- Transport system development and operation
- Construction and use of residential, commercial, industrial and recreational infrastructure
- Exploitation of biological resources (excluding agriculture and forestry)
- Human intrusions and disturbances (including public safety measures)
- Invasive alien and problematic species
- Pollution from mixed sources
- Human-induced changes in water regimes
- Natural processes (excluding catastrophes and human-induced changes)
- Geological events and natural catastrophes
- Climate change impacts
- Unknown or external pressures

Ireland's Article 12 Birds Directive Reports and the 6th National Report under the Convention of Biological Diversity identify similar issues.

The Variation 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.

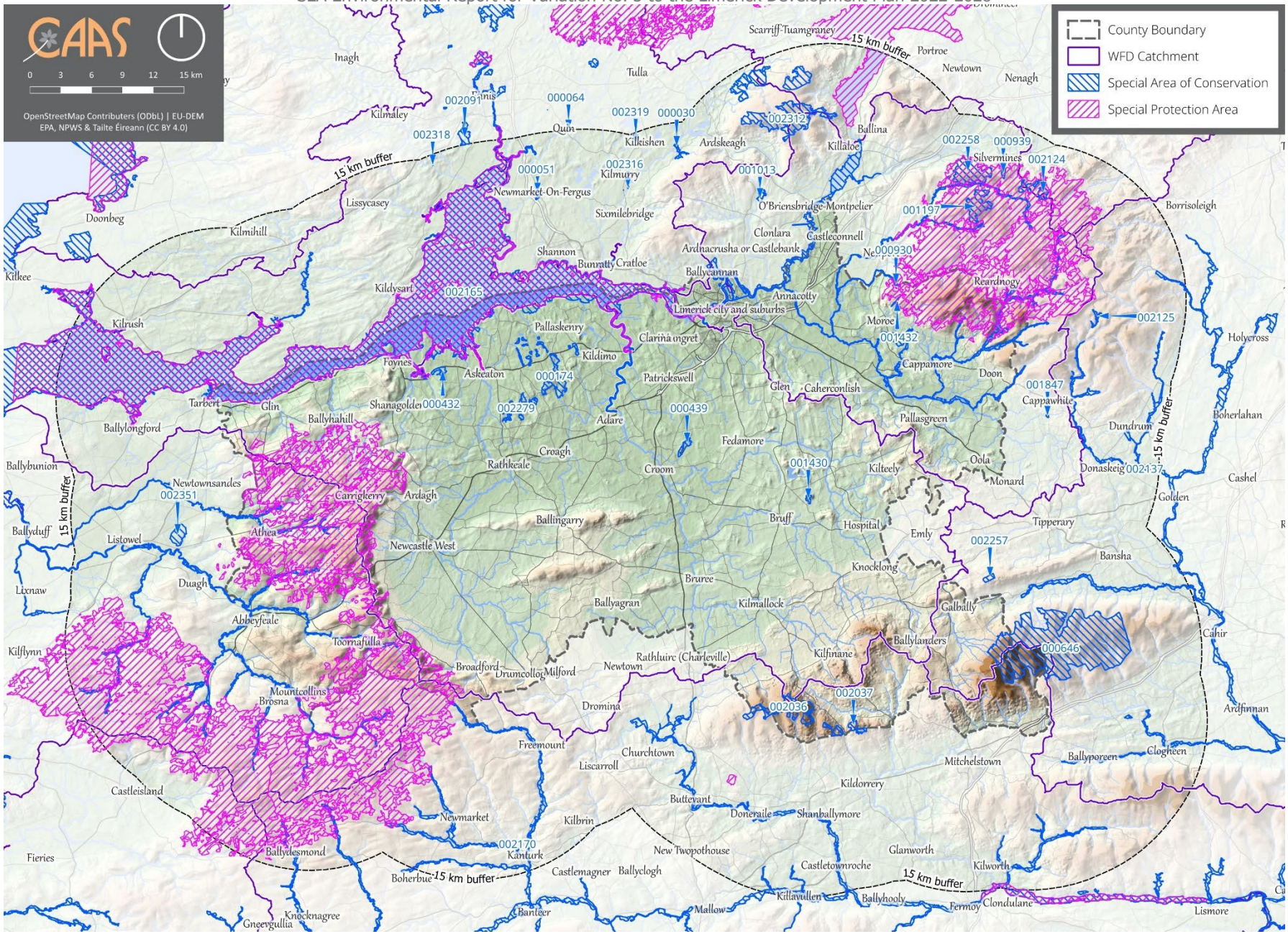


Figure 4.1 European sites within and within a 15 km buffer of Limerick

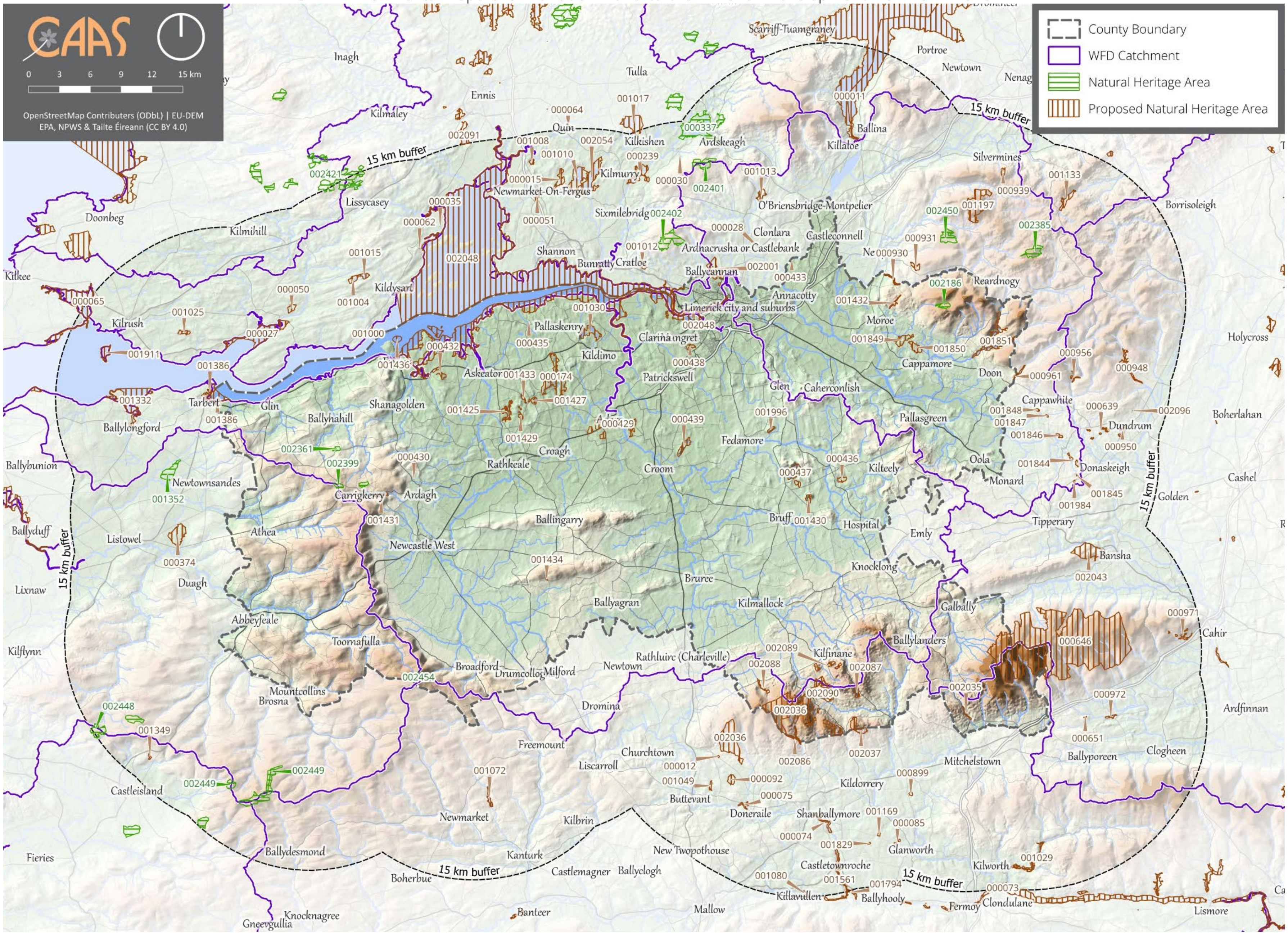


Figure 4.2 NHAs and pNHAs within and within a 15 km of Limerick

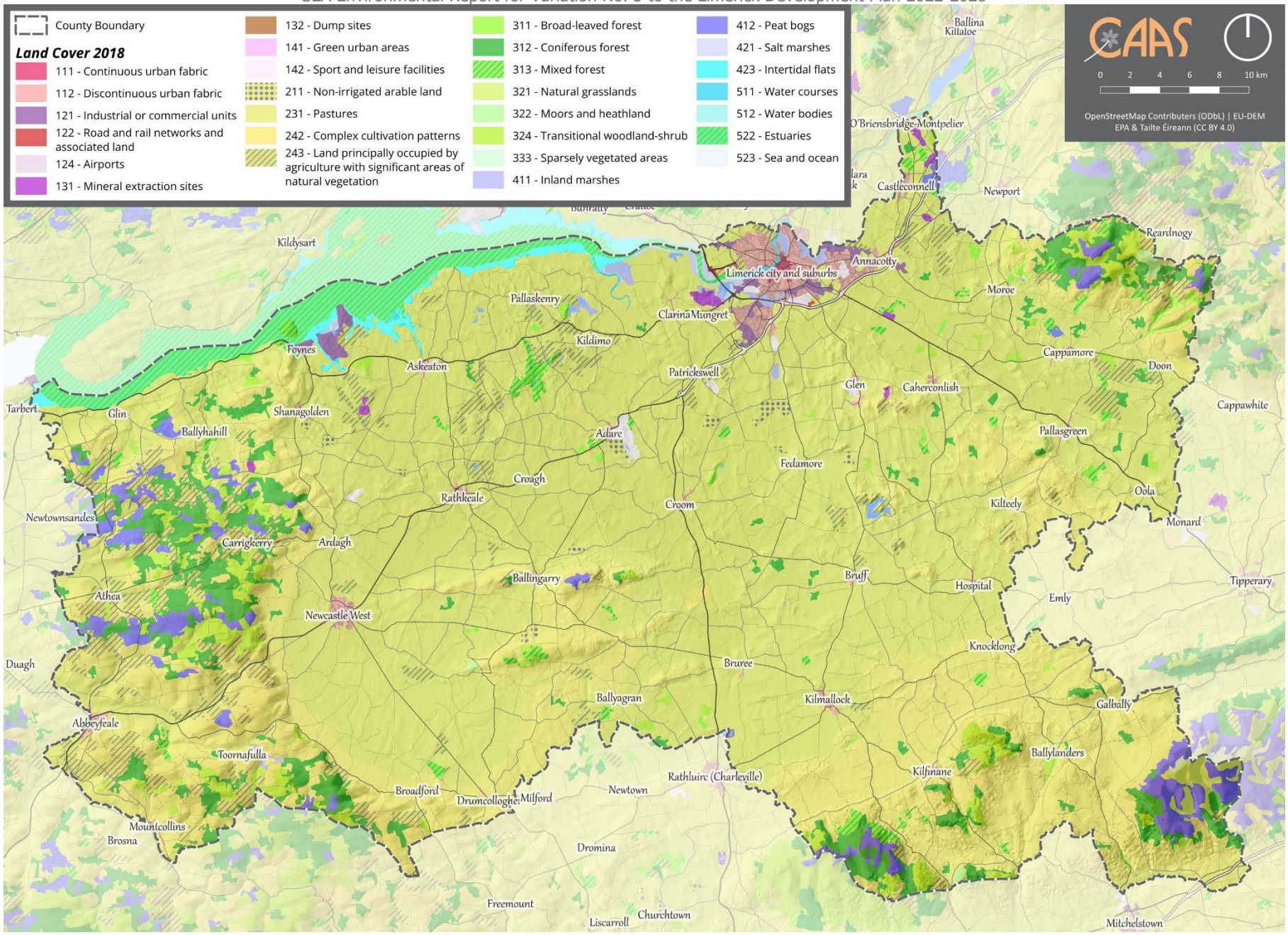


Figure 4.3 CORINE Land Cover Mapping 2018

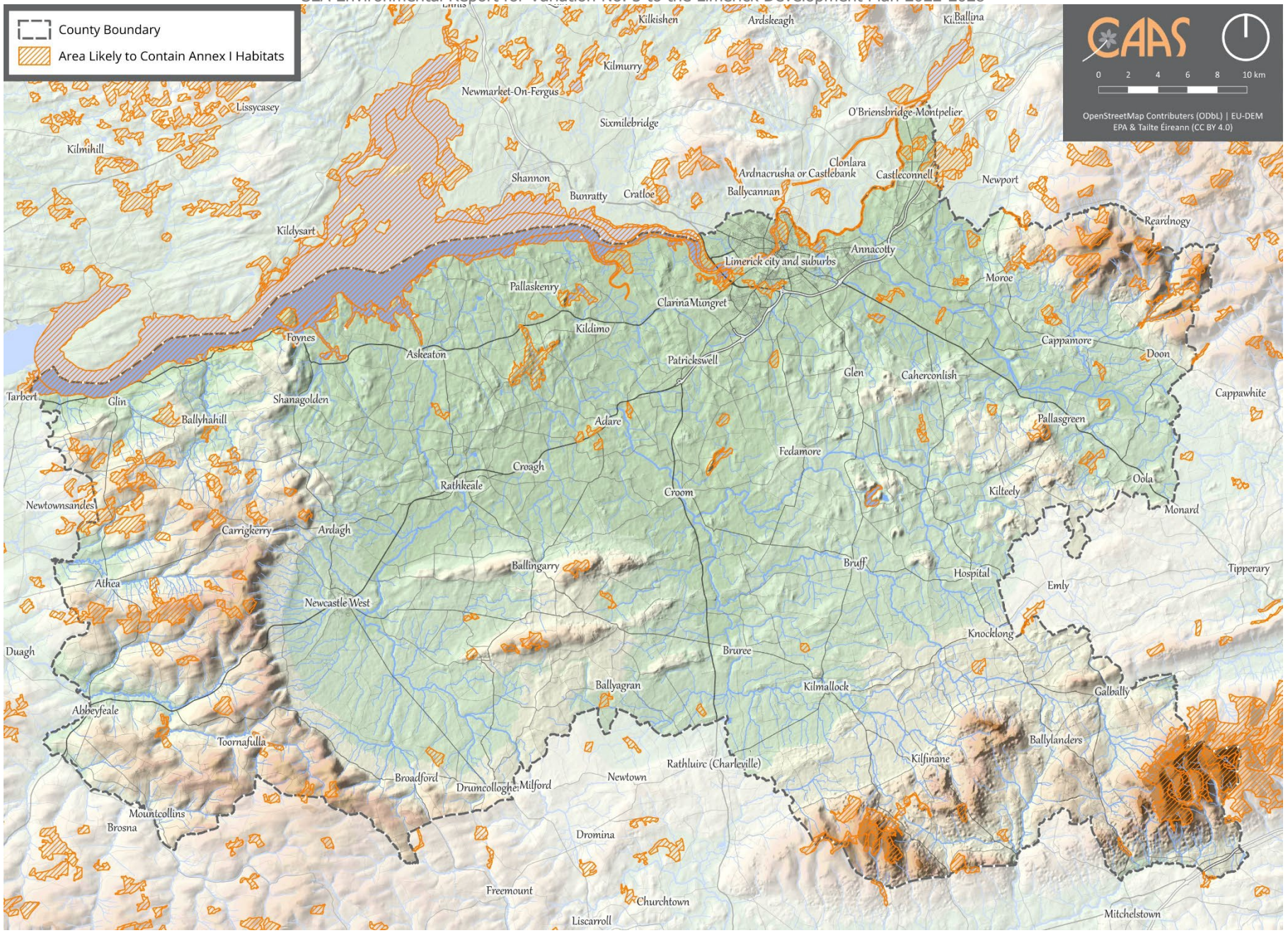


Figure 4.4 Areas likely to contain Annex I Habitats

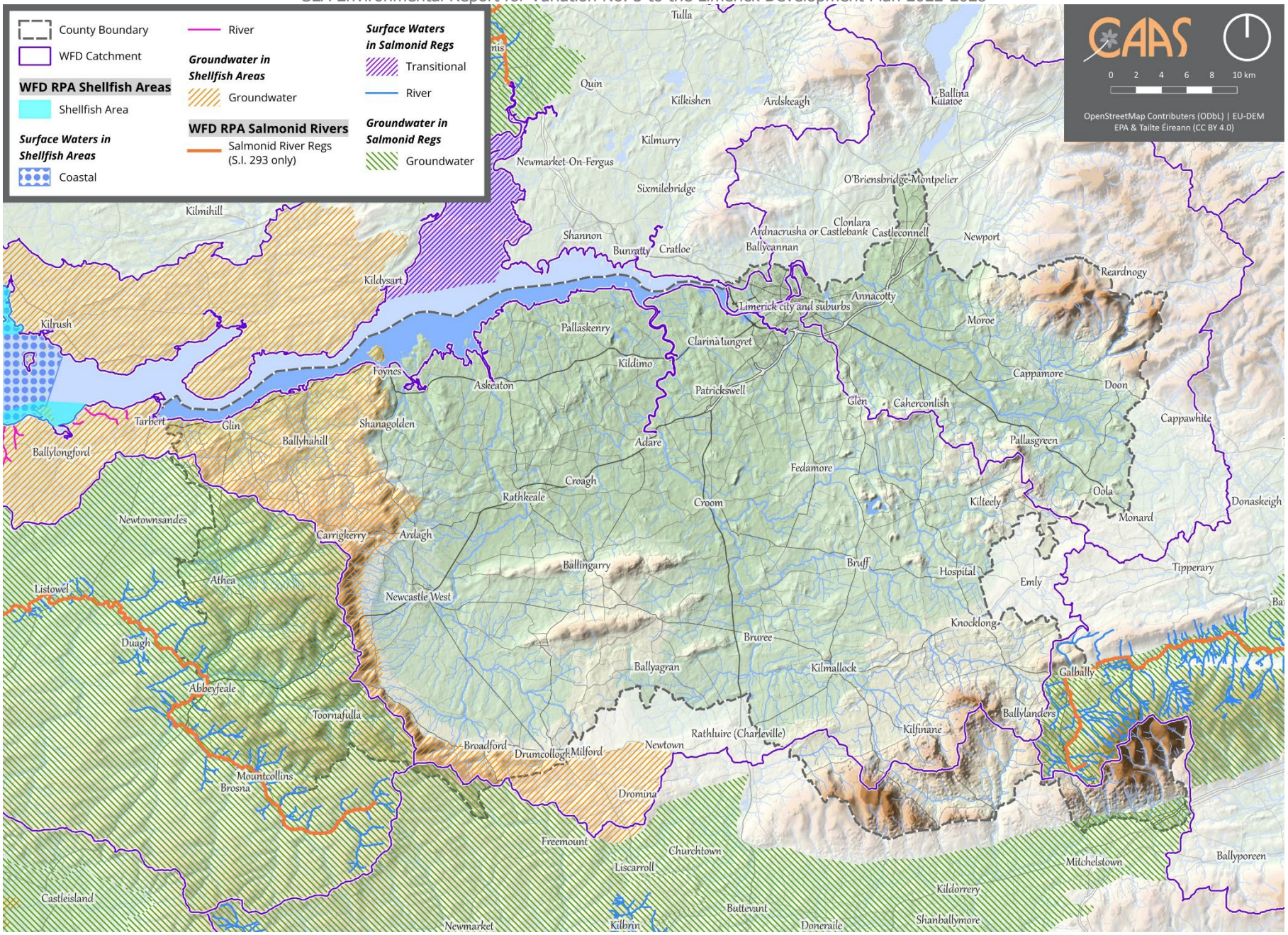


Figure 4.5 Entries to the WFD RPA for Shellfish Areas and WFD RPA for Salmonid Waters

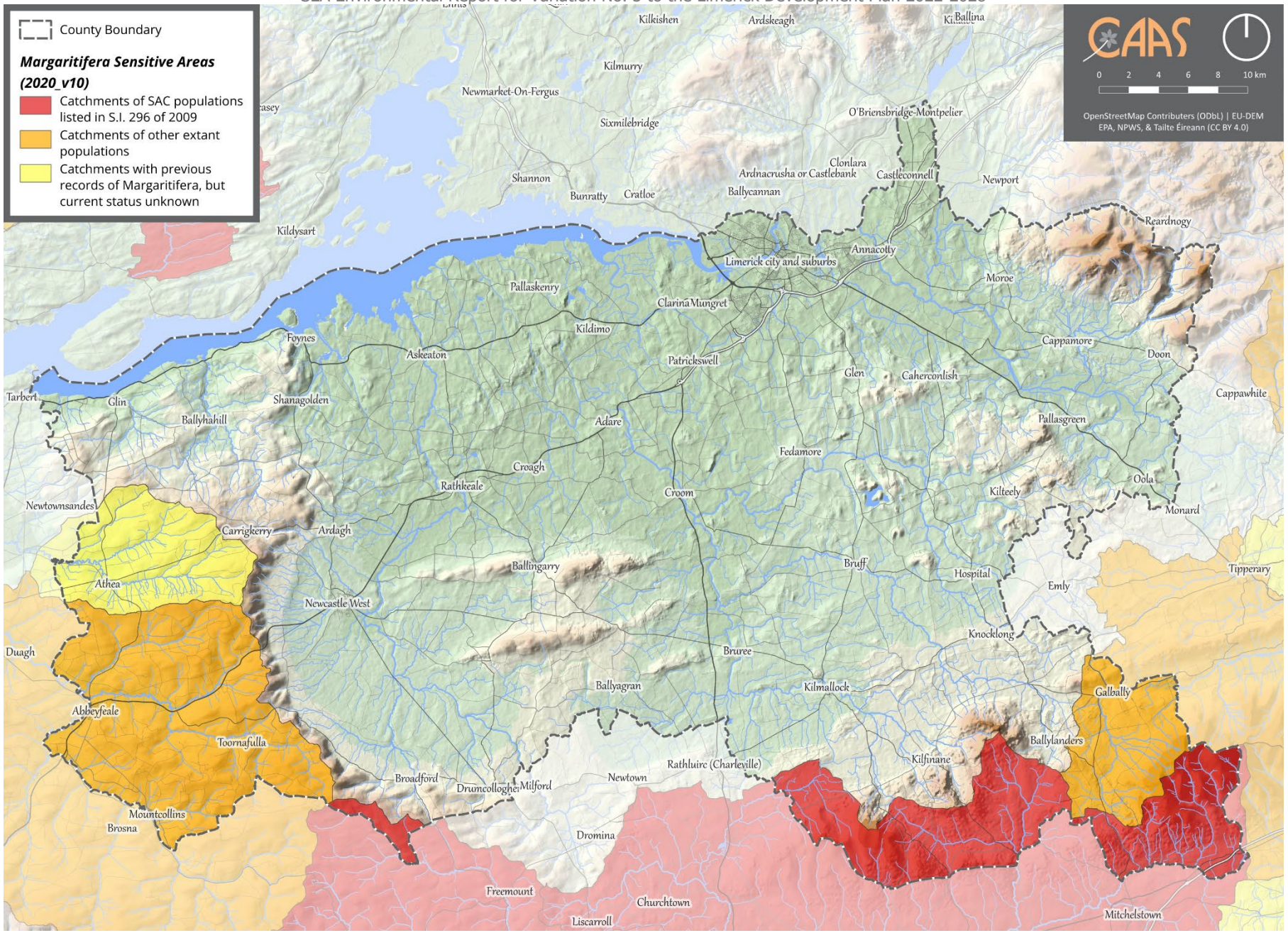


Figure 4.6 Margaritifera Sensitive Areas

4.7 Population and Human Health

4.7.1 Population

The results of Census 2022 recorded a population of 209,536 persons within Limerick of whom 102,287 lived in Limerick City.

The First Revision of the NPF was approved and published in April 2025. It identified the need to plan for approximately 50,000 additional households per annum to 2040 at national level. Arising from this, the Government issued Guidelines entitled NPF Implementation: Housing Growth Requirements under Section 28 of the Planning and Development Act (2000 as amended) to implement and interpret the national targets at county level. In order to implement the objectives of these guidelines, including increased housing targets for Limerick, it is necessary to vary the Plan and increase the quantum of land zoned for residential purposes.

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

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

4.7.2 Human Health

With regard to human health, impacts relevant to the SEA are those which arise as a result of interactions with environmental vectors (i.e. environmental components such as air, water or soil through which contaminants or pollutants, which have the potential to cause harm, can be transported so that they come into contact with human beings). Hazards or nuisances to human health can arise as a result of exposure to these vectors e.g. interactions with human health that could occur in urban locations that experience high-levels of traffic congestion and associated particulate matter and noise emissions to air.

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

Motorised transport generates air pollution and noise emissions that can adversely affect human health. Road traffic emits nitrogen dioxide (NO_2), fine particulate matter (PM2.5) and other pollutants. High traffic volumes can lead to elevated NO_2 and $PM_{2.5}$ concentrations, which are associated with respiratory illness, cardiovascular disease, asthma and increased mortality. As identified in the EEA's *Environmental noise in Europe 2025* report, noise from road traffic can lead to annoyance, sleep disturbance, stress and more serious long-term outcomes including cardiovascular impacts, impaired cognitive development in children and decreased quality of life. Beyond direct physical health effects, transport emissions and noisy, congested environments can impact upon mental health (through increasing stress, reducing opportunities for restorative quiet space access and discouraging walking/cycling).

As identified by the EPA's State of the Environment Report 2024, engagement and contact with our natural environment is associated with measurable improvements in the health and wellbeing of the population – getting outdoors and using green and blue spaces can have a multitude of benefits for health, both physically and mentally. Urban greening has become a well-established priority in international frameworks and European policy as a key contributor to sustainability. Access to urban parks with good quality sound is of major importance for people living in cities for social and health related benefits. The People's Park is identified as a Candidate Quiet Area under the Agglomeration of Limerick Noise Action Plan 2024-2028. Investigations indicate that natural and human sounds in the park are

mainly perceived as being pleasant by visitors.[20]

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

4.7.3 Soil

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 historically developed areas across the country, there is potential for contamination at local sites within Limerick, especially where land uses occurred in the past in the absence of the high standards of today's environmental protection legislation.

4.7.4 Potentially Contaminated Lands and Landfill Sites

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

4.7.5 Seveso (COMAH) Sites

Seveso Sites are defined as industrial sites that, because of the presence of dangerous substances in sufficient quantities, are regulated under the European Seveso-III Directive (2012/18/EU)[21].

Major industrial accidents involving dangerous substances pose a significant threat to humans and the environment; such accidents can give rise to serious injury to people or serious damage to the environment, both on and off the site of the accident.

The Seveso III Directive is transposed through the Chemicals Act (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2015 (S.I. No. 209 of 2015). The purpose of the COMAH Regulations is to lay down rules for the prevention of major accidents involving dangerous substances, and to seek to limit as far as possible the consequences for human health and the environment of such accidents, with the overall objective of providing a high level of protection in a consistent and effective manner. The intention is to achieve this through tiered controls on the operators of the establishments subject to the regulations - the larger the quantities of dangerous substances present at an establishment, the more onerous the duties on the operator. Seveso establishments are identified as either upper-tier establishments (with higher amounts of dangerous substances) or lower-tier establishments (with lower amounts of dangerous substances). Seveso establishments in Limerick comprise[22]:

Upper Tier:

- Atlantic Fuel Supply Company Ltd. Foynes Harbour, Durnish, Foynes, Co. Limerick
- Goulding soil Nutrition Ltd Morgans South, Askeaton, Co. Limerick

Lower Tier:

- Analog Devices International Raheen Business Park, Raheen, Limerick
- Chemifloc Foynes Ltd (formerly Exolum Shannon) Foynes Harbour, Foynes, Co. Limerick
- Grassland Agro Dock Road, Limerick City

4.7.6 Existing Problems

Sources of flood risk include coastal, fluvial, pluvial (rainwater) and surface drainage systems sources. There is historic and predictive evidence of flooding throughout Limerick (see subsection 4.9.8). Parts of Limerick are vulnerable to adverse effects from small changes in sea level combined with changes in the occurrence of severe rainfall events and associated flooding of rivers and urban streams. Flooding in certain circumstances could pose a risk to human health.

[20] https://mypoint.limerick.ie/en/consultation/proposed-application-quiet-area-designation-peoples-park

[21] There are a number of establishments and activities to which the Directive does not apply, including the transport of dangerous substances and directly related intermediate temporary storage by road, rail, internal waterways, sea or air, outside the establishments covered by the Directive, including loading and unloading and transport to and from another means of transport at docks, wharves or marshalling yards.

[22] HSA (December 2025) https://www.hsa.ie/eng/your_industry/chemicals/legislation_enforcement/comah/information_to_the_public/list_of_establishments/

Air quality and noise (see 4.10) also present challenges that have the potential to interact with human health.

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

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.

Recently, the European Union has adopted the Directive on soil monitoring and resilience (Soil Monitoring Law)[23] legislation, which is specific to the protection of soil resources. Under Article 12, Member States shall ensure that Land take mitigation principles are taken into consideration at the appropriate spatial level. Under Article 12(a)(i) of the Directive, this includes:

> *"(a) avoiding or reducing as much as possible the loss of the capacity of the soil to provide multiple ecosystem services,*
> *including food production, by:*
> *(i) reducing, as much as possible, the area of soil affected by soil sealing and soil removal, in particular by encouraging the reuse and repurposing of sealed soils, such as existing buildings;"*

In addition, the *EU Soil Strategy for 2030* sets out a framework and concrete measures to protect and restore soils, and ensure that they are used sustainably. It sets a vision and objectives to achieve healthy soils by 2050, with concrete actions by 2030.

4.8.1 Soil Types

The most dominant soil types[24] (mapped on Figure 4.7) surrounding the built-up areas[25] of Limerick are: brown earths (well-drained mineral soils, associated with high levels of natural fertility); surface water and groundwater gleys (wetland soils with slowly permeable horizons resulting in seasonal waterlogging); rendzinas (very shallow soils over bedrock, liable to drought); luvisols (generally fertile, widely used for agriculture and associated with significant accumulation of clay); and alluvial soils (associated with alluvial clay, silt or sand river deposits). Peat soils (both minerotrophic and ombrotrophic) are found throughout Limerick. Other soil types occurring within Limerick include: podzols, brown podzols, lithosols, rocks and tidal marshes.

The most dominant soil type surrounding the built-up areas of Limerick City are brown earths, luvisols, brown podzols, tidal marshes and alluvial soils.

Active blanket bogs and active raised bogs are considered to be priority habitats, listed on Annex I of the EU Habitats Directive. Ombrotrophic (rain-fed) and minerotrophic (groundwater fed) 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.

Information sources relevant to the environmental component of soil which may be used in lower tier planning and environmental assessments includes:

- Soil types (2006) published by Teagasc, Geological Survey of Ireland (GSI), Forest Service & EPA;

[23] Directive (EU) 2025/2360 of the European Parliament and of the Council of 12 November 2025 on soil monitoring and resilience (Soil Monitoring Law).

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

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

- Soils and Subsoils Class (2006) published by Teagasc, GSI, Forest Service & EPA (2006);
- Sites of Geological Interest which have been published for some counties and provisional information on same for other counties (both available from GSI);
- Other datasets published by and available from GSI including those relating to Bedrock Geology, Quaternary Geology, Mineral deposits, Groundwater Resources and Landslides; and
- Datasets on contaminated soils which may be kept by planning authorities (these occur most often in urban areas).

4.8.2 County Geological Sites

Geological Survey Ireland coordinate the Irish Geological Heritage Programme, whereby an objective has been set to identify and select sites of geological interest within each county across the country. County Geological Sites (CGSs) do not receive statutory protection like Natural Heritage Areas but receive an effective protection from their inclusion in the planning system. The audit of CGSs in Limerick was completed in 2022, which identified 30 CGS identified in Limerick (as shown on Figure 4.8). There are no CGSs occurring within Limerick City.

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.

Public Supply Source Protection Areas are managed by Uisce Éireann to supply Public Water Supply Schemes across Ireland. Source Protection Areas provide protection by placing tighter controls on activities within all or part of the zone of contribution of the source.

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. 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. Source Protection Areas within Limerick are mapped 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 GSI have identified[26] Limerick, including Limerick City, as having mainly low levels of landslide susceptibility, with moderately high and high levels of landslide susceptibility occurring in foothill and upland areas (mapped on Figure 4.9).

4.8.5 Existing Problems

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

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

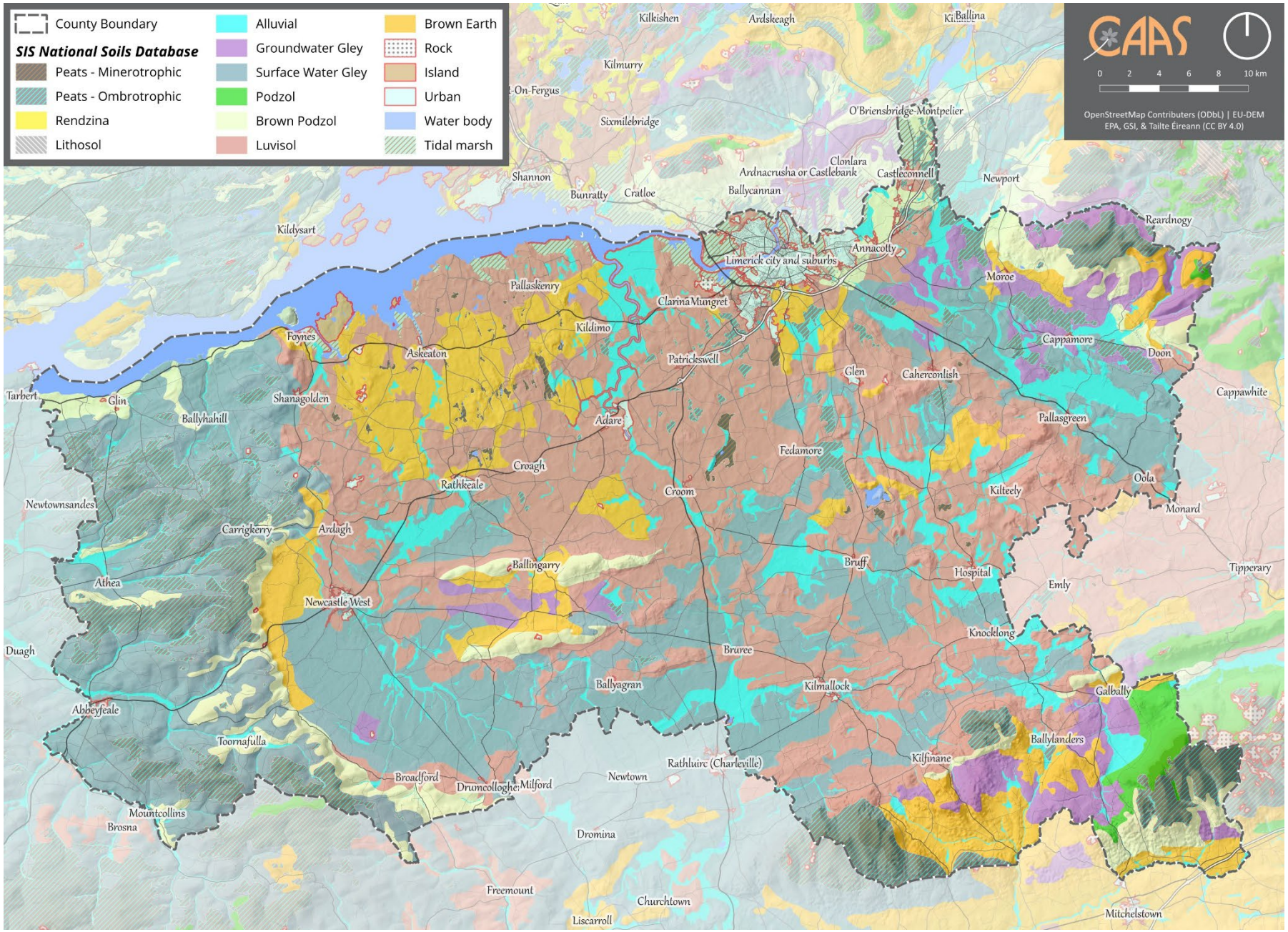


Figure 4.7 Soil Types

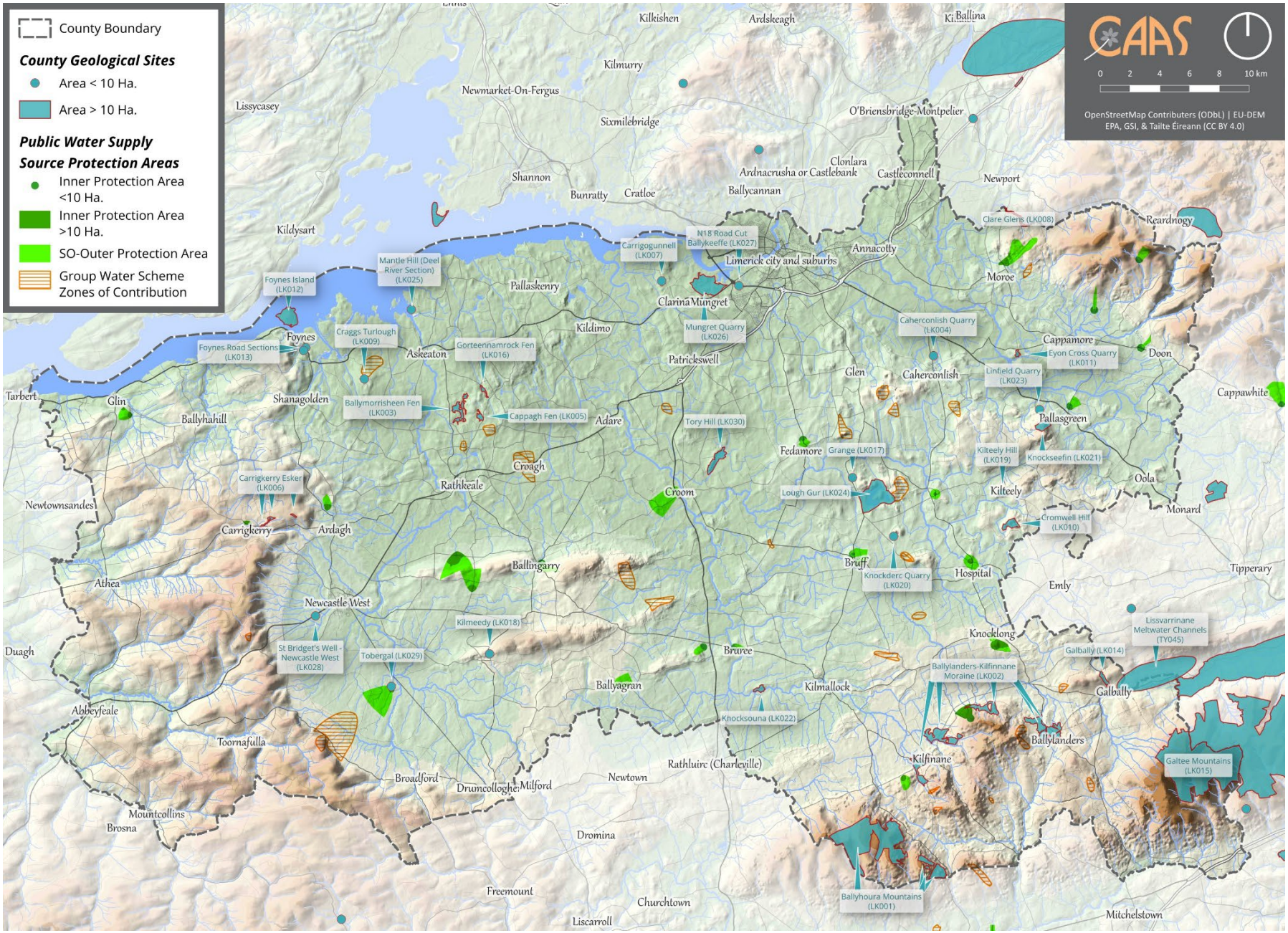


Figure 4.8 County Geological Sites and Source Protection Areas

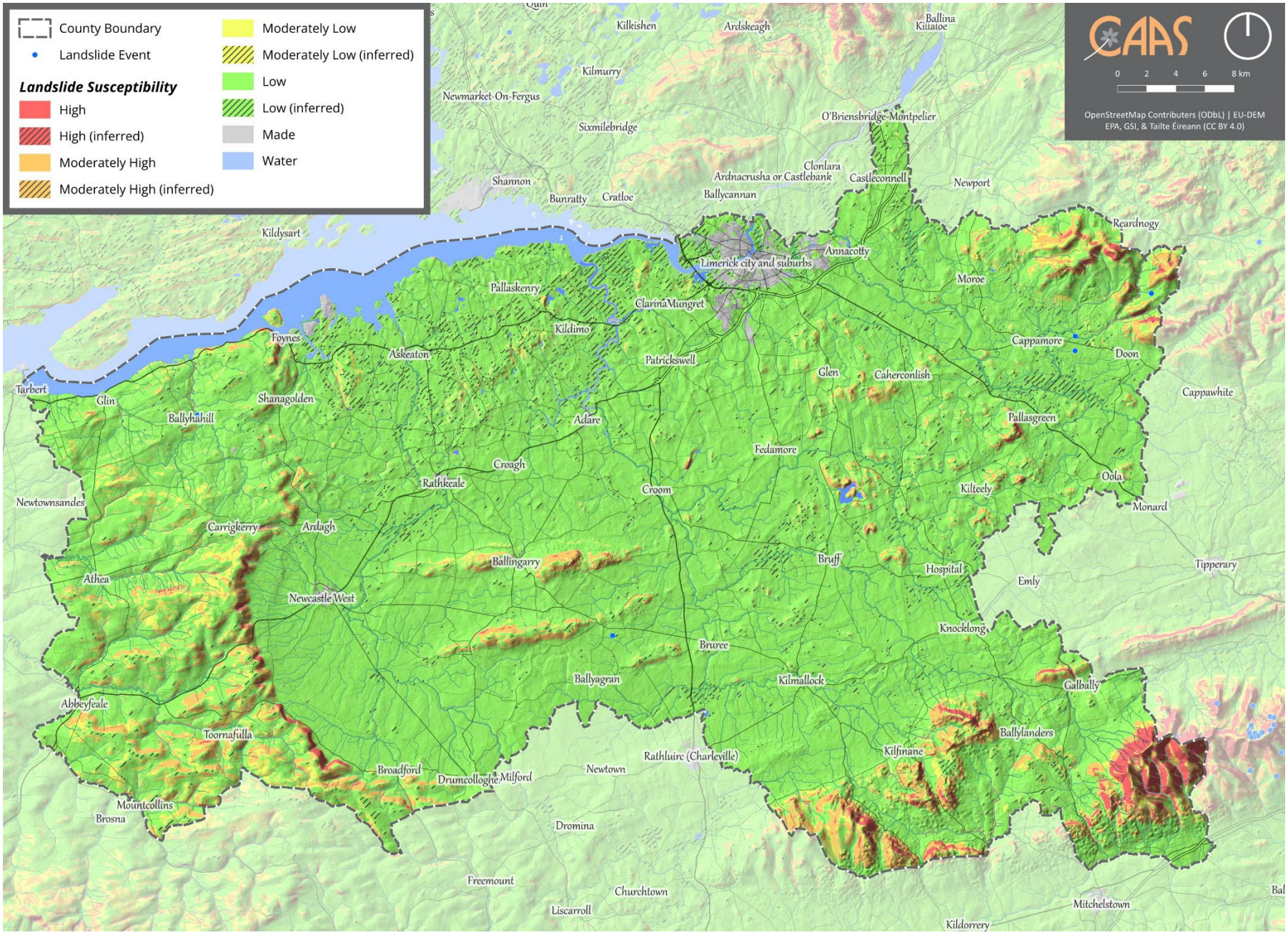


Figure 4.9 Landslide Susceptibility and Landslide Events

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 that are currently unpolluted and improve polluted water bodies to *good status.*

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

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

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

4.9.2 Zone of Influence

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

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.

Catchments draining Limerick include: Tralee Bay-Feale, Shannon Estuary South, Blackwater (Munster), Suir and Lower Shannon.

4.9.4 Surface Water Status

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

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

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

The current WFD status (2019-2024)[27] of surface waterbodies (rivers, lakes and transitional) that drain Limerick ranges from *high* to *bad* (shown on Figure 4.10). Subject to exemptions provided for by Article 4 of the WFD, some of these water bodies will need improvement in order to comply with the objectives of the WFD.

The WFD surface water status (2019-2024) of the River Shannon's transitional section within

[27] As per EPA's WFD Status 2019-2024 classification (https://gis.epa.ie/EPAMaps/).

and surrounding Limerick City is identified as *poor* (Limerick Dock), while the upper section of the Ballinacurra Creek waterbody that drains the south of the city ('Ballynaclogh_10') is identified as *moderate.*

Some sections of the rivers and transitional waterbodies draining Limerick are currently identified in the combined 2019-2024 data as being at risk of not meeting the WFD's objectives due to damage caused by significant pressures related to (as identified on Table 4.1) [28]:

- **Urban run-off pressures,** which may include leaking sewers and run-off from paved and unpaved areas and misconnections where private foul connections are connected to storm sewers instead of the foul sewer network.
- **Agricultural pressures,** which may include issues related to farming including loss of excess nutrients and sediment loss to surface waters from diffuse sources such as spreading of fertilisers and manures. Excess phosphorous and sediment are typically issues for rivers and lakes, and too much nitrogen is the main issue for estuaries and coastal waters.
- **Domestic wastewater pressures**, which may include septic tank systems associated with one-off housing and small unlicensed private urban wastewater treatment plants. If not correctly installed and well maintained, these systems can result in leakage of untreated effluent to waters.
- **Hydromorphological and anthropogenic pressures** are identified together in many instances. Hydromorphological pressures may include: modifications to the physical habitat conditions or the natural functioning of a waterbody which can impact on ecology, caused by dredging and straightening of rivers (chanellisation), land drainage or hard infrastructure such as dams, weirs, culverts or other obstructions. Anthropogenic pressures may include: water abstractions; invasive species; agriculture; use of fertilizers, manures and pesticides; animal husbandry activities; inefficient irrigation practices; deforestation of woods; aquaculture; pollution due to industrial effluents and domestic sewage; mining; and recreational activities.
- **Extractive industry-related pressures**, which may 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. Peat extraction for commercial or domestic purposes, and modification or drainage of peatlands for other uses such as forestry or agriculture, has been also identified as a significant pressure.
- **Forestry pressures**, which may 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.
- **Domestic wastewater pressures,** which can include septic-tank systems associated with one-off housing and small unlicensed private urban waste-water treatment plants. If not correctly installed and well maintained, these systems can result in leakage of untreated effluent to waters.
- **Invasive species pressures**, which may include those relating to non-native species introduced outside their natural range that threaten ecosystems, habitats and native species with environmental or socio-economic harm. Currently 37 species have been identified across the EU as a high priority for management, and nine of these occur in Ireland. The potential impacts of IAS include the alteration of eco-systems (by causing bank erosion, for example), inhibition of access to water bodies, hindrance of land development and, in some cases, potential human health impacts.
- **Industrial pressures**, which may include discharges and emissions from industrial and commercial facilities.
- **Other pressures**, which may include impacts from activities such as **historically polluted sites** and **aquaculture.** These activities each impact a relatively small number of water bodies so they have been grouped together.

4.9.5 Groundwater Status

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

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

[28] https://gis.epa.ie/EPAMaps/Water

be classed as good chemical and quantitative status.

The WFD status (2019-2024) of groundwater underlying Limerick (mapped on Figure 4.10) is currently generally identified as being of *good* status and meeting the objectives of the WFD; however, there is an area of groundwater underlying an industrial facility identified as being of *poor* status in the south-east of Limerick, where the groundwater is currently not meeting the objectives of the WFD.

4.9.6 WFD Registers of Protected Areas

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

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

The surface water bodies and the associated groundwater bodies within and surrounding Limerick (including the area of Limerick City) are used for drinking water abstraction in accordance with European Communities (Drinking Water) (No. 2) Regulations 2007 (S.I. No. 278/2007) and are identified on the WFD RPA for Rivers and Groundwater for Drinking Water (as mapped on Figure 4.11). Some of these water bodies are also included on the WFD RPA for Nutrient Sensitive Areas for Groundwater and Surface Waters in Nutrient Sensitive Areas[29] (as mapped on Figure 4.11).

4.9.7 Aquifer Vulnerability and Productivity

The GSI rates groundwaters according to both their productivity and vulnerability to pollution.

Aquifer vulnerability refers to the ease with which pollutants of various kinds can enter into groundwater. The aquifers underlying Limerick (including Limerick City) are classified as being of "rock at or near surface or karst", "extreme", "high", "moderate" and "low" vulnerability (mapped on Figure 4.12).

The vulnerability of aquifers underlying Limerick City area (also mapped on Figure 4.12) are classified as being of generally 'high vulnerability' within the central parts and generally 'moderate vulnerability' (with pocket areas of 'high' and 'extreme') throughout the City.

The GSI also rates aquifers based on the hydrogeological characteristics and on the value of the groundwater resource. This is referred to as aquifer productivity and is mapped on Figure 4.13. Aquifers in Limerick are classified as being: 'Locally Important Aquifer Karstified', 'Locally Important Aquifer Bedrock which is Moderately Productive only in Local Zones', 'Locally Important Aquifer Bedrock which is Generally Moderately Productive', 'Poor Aquifer Bedrock which is Generally Unproductive except for Local Zones', 'Poor Aquifer Bedrock which is generally unproductive', 'Regionally Important Aquifer Fissured Bedrock', 'Regionally Important Aquifer Karstified (conduit)' and 'Locally Important Gravel Aquifers'.

Aquifer productivity within Limerick City (also mapped on Figure 4.13) is generally classified as being a 'Locally Important Aquifer Bedrock, which is moderately productive only in local zones' and 'Locally Important Aquifer Bedrock which is Generally Moderately Productive'.

4.9.8 Flooding

A Strategic Flood Risk Assessment (SFRA) document accompanies this SEA Environmental Report and the Variation. Requirements in relation to SFRA are provided under 'The Planning System and Flood Risk Management

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

Guidelines for Planning Authorities' (Department of Environment and Office of Public Works, 2009) and associated Department of the Environment, Community and Local Government Circular PL2/2014.

Flood risk management and drainage provisions are already in force through the Limerick Development Plan 2022-2028 and related provisions have been integrated into the Variation. There is historic and predictive evidence of flooding throughout Limerick.

Predictive flood risk mapping is available from the Office of Public Works and included in the accompanying Strategic Flood Risk Assessment.

Sources of flood risk within Limerick include coastal, tidal, fluvial, pluvial (rainwater) and surface drainage systems sources.

4.9.9 Existing Problems

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

There are elevated levels of flood risk from coastal and fluvial sources at various locations throughout Limerick. Flood risk management and drainage provisions are already in force through the Limerick Development Plan 2022-2028 and related provisions have been integrated into the Variation.

Table 4.1 WFD Surface Waterbodies Status (2019-2024) and Significant Pressures

Name and Code[30]	Type	WFD Surface Waterbody Status 2019-2024 and Significant Pressure Sources	
Behanagh_010	River	High	No pressures identified.
Foynes Harbour	Transitional	High	No pressures identified.
Aherlow_010	River	Good	No pressures identified.
Aherlow_020	River	Good	No pressures identified.
Aherlow_040	River	Good	No pressures identified.
Allaghaun_010	River	Good	No pressures identified.
Allaghaun_020	River	Good	No pressures identified.
Allaghaun_030	River	Good	No pressures identified.
Allaghaun_040	River	Good	No pressures identified.
Allow_020	River	Good	No pressures identified.
Annagh (Tipperary)_020	River	Good	No pressures identified.
Annagh (Tipperary)_030	River	Good	No pressures identified.
Bilboa_020	River	Good	No pressures identified.
Bunoke_020	River	Good	No pressures identified.
Cahernahallia_020	River	Good	No pressures identified.
Farranmiller_010	River	Good	No pressures identified.
Feale_030	River	Good	No pressures identified.
Feale_040	River	Good	No pressures identified.
Feale_050	River	Good	No pressures identified.
Feale_070	River	Good	No pressures identified.
Funshion_010	River	Good	No pressures identified.
Funshion_020	River	Good	No pressures identified.
Galey_010	River	Good	No pressures identified.
Galey_020	River	Good	No pressures identified.
Glashacloonaraveela_010	River	Good	No pressures identified.
Glashawee (Allow)_010	River	Good	No pressures identified.
Gortnageragh_010	River	Good	No pressures identified.
Killeengarriff_010	River	Good	No pressures identified.
Kilteery_010	River	Good	No pressures identified.
Loobagh_010	River	Good	No pressures identified.
Loobagh_030	River	Good	No pressures identified.
Morningstar_010	River	Good	No pressures identified.
Morningstar_030	River	Good	No pressures identified.
Morningstar_040	River	Good	No pressures identified.
Morningstar_060	River	Good	No pressures identified.
Mulkear (Limerick)_050	River	Good	No pressures identified.
North Ballycannan_010	River	Good	No pressures identified.
Ogeen_010	River	Good	This waterbody is also identified as being under significant pressure from forestry sources.
Oolagh_010	River	Good	No pressures identified.
Oolagh_020	River	Good	No pressures identified.

[30] 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'.

Owvane (Limerick)_010	River	Good	No pressures identified.
Owvane (Limerick)_020	River	Good	This waterbody is also identified as being under significant pressure from forestry sources.
Sheep_020	River	Good	No pressures identified.
Slewaun Stream (North Branch)_010	River	Good	No pressures identified.
Bleach	Lake	Good	This waterbody is also identified as being under significant pressure from hydromorphology sources.
Lower Shannon Estuary	Transitional	Good	No pressures identified.
Ahalahana_010	River	Moderate	No pressures identified.
Aherlow_030	River	Moderate	No pressures identified.
Awbeg (Buttevant) (East)_010	River	Moderate	This waterbody is also identified as being under significant pressure from forestry and agriculture sources.
Awbeg (Buttevant) (East)_020	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture, mines and quarries sources.
Ballyard_020	River	Moderate	No pressures identified.
Ballynaclogh_010	River	Moderate	No pressures identified.
Ballysallagh_010	River	Moderate	No pressures identified.
Barnakyle_020	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture and urban run-off sources.
Bilboa_010	River	Moderate	This waterbody is also identified as being under significant pressure from forestry sources.
Broadford Stream_010	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture sources.
Bunoke_010	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture sources.
Caher (Limerick)_010	River	Moderate	No pressures identified.
Camoge_010	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture and urban run-off sources.
Camoge_020	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture and hydromorphology sources.
Camoge_030	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture and hydromorphology sources.
Charleville Stream_020	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture and urban run-off sources.
Deegerty_010	River	Moderate	No pressures identified.
Deel (Newcastlewest)_040	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture and hydromorphology sources.
Deel (Newcastlewest)_060	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture sources.
Deel (Newcastlewest)_070	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture and urban run-off sources.
Deel (Newcastlewest)_080	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture sources.
Deel (Newcastlewest)_090	River	Moderate	This waterbody is also identified as being under significant pressure from anthropogenic sources.
Deel (Newcastlewest)_100	River	Moderate	No pressures identified.
Deel (Newcastlewest)_110	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture sources.
Deel (Newcastlewest)_120	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture and invasive species sources.
Deel (Newcastlewest)_130	River	Moderate	No pressures identified.
Doon Stream_010	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture and urban run-off sources.
Dooncaha Stream_010	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture and peat sources.
Dromlohan_010	River	Moderate	No pressures identified.
Farahy_010	River	Moderate	This waterbody is also identified as being under significant pressure from anthropogenic and forestry sources.
Feale_060	River	Moderate	No pressures identified.
Finglasha Stream_010	River	Moderate	No pressures identified.
Flemingstown Stream_010	River	Moderate	This waterbody is also identified as being under significant pressure from hydromorphology sources.
Galey_030	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture, hydromorphology and urban wastewater sources.
Glencorbry_010	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture and forestry sources.
Groody_010	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture and urban run-off sources.

Issane_010	River	Moderate	No pressures identified.
Knockfinnisk_010	River	Moderate	No pressures identified.
Loobagh_020	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture and urban run-off sources.
Mahore_020	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture and urban wastewater sources.
Maigue_010	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture and domestic wastewater sources.
Maigue_020	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture sources.
Maigue_030	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture sources.
Maigue_040	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture sources.
Maigue_050	River	Moderate	No pressures identified.
Maigue_060	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture sources.
Maigue_070	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture sources.
Morningstar_020	River	Moderate	No pressures identified.
Morningstar_050	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture, hydromorphology and urban run-off sources.
Mulkear (Limerick)_010	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture sources.
Mulkear (Limerick)_020	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture sources.
Mulkear (Limerick)_030	River	Moderate	No pressures identified.
Mulkear (Limerick)_040	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture sources.
Owenskaw_010	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture sources.
Owvane (Limerick)_030	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture, forestry and hydromorphology sources.
Shannon (Lower)_060	River	Moderate	No pressures identified.
Sheep_010	River	Moderate	No pressures identified.
Tarmon Stream_010	River	Moderate	This waterbody is also identified as being under significant pressure from agriculture, hydromorphology and peat sources.
Deel Estuary	Transitional	Moderate	This waterbody is also identified as being under significant pressure from agriculture sources.
Maigue Estuary	Transitional	Moderate	This waterbody is also identified as being under significant pressure from agriculture sources.
Ahacronane_010	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture sources.
Ahacronane_020	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture, hydromorphology and mines and quarries sources.
Arra_010	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture, domestic wastewater and urban run-off sources.
Ballyania Stream_010	River	Poor	Due to poor ecological/biological status. No pressures identified.
Ballycullane (Limerick)_010	River	Poor	Due to poor ecological/biological status. No pressures identified.
Ballynamona_010	River	Poor	Due to poor ecological/biological status. No pressures identified.
Barnakyle_010	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture sources.
Charleville Stream_010	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture and domestic wastewater sources.
Clonshire_010	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture and urban wastewater sources.
Clonshire_020	River	Poor	Due to poor ecological/biological status. No pressures identified.
Clonshire_030	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture sources.
Clonshire_040	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture sources.
Coolagowan_010	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture sources.
Crompaun (East)_010	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture, domestic wastewater, forestry and hydromorphology.
Dead_010	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture, hydromorphology and industry.
Dead_020	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture sources.
Deegerty_020	River	Poor	Due to poor ecological/biological status. No pressures identified.
Deel (Newcastlewest)_050	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture sources.
Deel (Newcastlewest)_140	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture and urban wastewater sources.

Dooglasha (Cappamore)_010	River	Poor	Due to poor ecological/biological status. No pressures identified.
Drumcomoge_010	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture and hydromorphology sources.
East Carrig_010	River	Poor	Due to poor ecological/biological status. No pressures identified.
Fairyfield_Glebe_010	River	Poor	Due to poor ecological/biological status. No pressures identified.
Foynes_010	River	Poor	Due to poor ecological/biological status. No pressures identified.
Glenbane West Stream_010	River	Poor	Due to poor ecological/biological status. No pressures identified.
Goatisland_010	River	Poor	Due to poor ecological/biological status. No pressures identified.
Greanagh Stream_010	River	Poor	Due to poor ecological/biological status. No pressures identified.
Greanagh_010	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture and domestic wastewater sources.
Kilmoreen_010	River	Poor	Due to poor ecological/biological status. No pressures identified.
Lismakeery Stream_010	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture sources.
Mahore_010	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture sources.
Maigue_080	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture sources.
Maigue_090	River	Poor	Due to poor ecological/biological status. No pressures identified.
Mondellihy_010	River	Poor	Due to poor ecological/biological status. No pressures identified.
Shanagolden Stream_010	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture hydromorphology and urban wastewater.
Shannon (Lower)_050	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from hydromorphology sources.
South Drumloughan_010	River	Poor	Due to poor ecological/biological status. No pressures identified.
Tobermurry_010	River	Poor	Due to poor ecological/biological status. No pressures identified.
Toem Stream_010	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture, hydromorphology and invasive species sources.
Tonlegee_010	River	Poor	Due to poor ecological/biological status. No pressures identified.
West Liskennett_010	River	Poor	Due to poor ecological/biological status. No pressures identified.
Whitehall_010	River	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from domestic wastewater, urban run-off sources.
Gur	Lake	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture and domestic wastewater sources.
Limerick Dock	Transitional	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from hydromorphology sources.
Upper Shannon Estuary	Transitional	Poor	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture sources.
Ahavarraga Stream_010	River	Bad	Due to poor ecological/biological status. This waterbody is also identified as being under significant pressure from agriculture and urban wastewater sources.

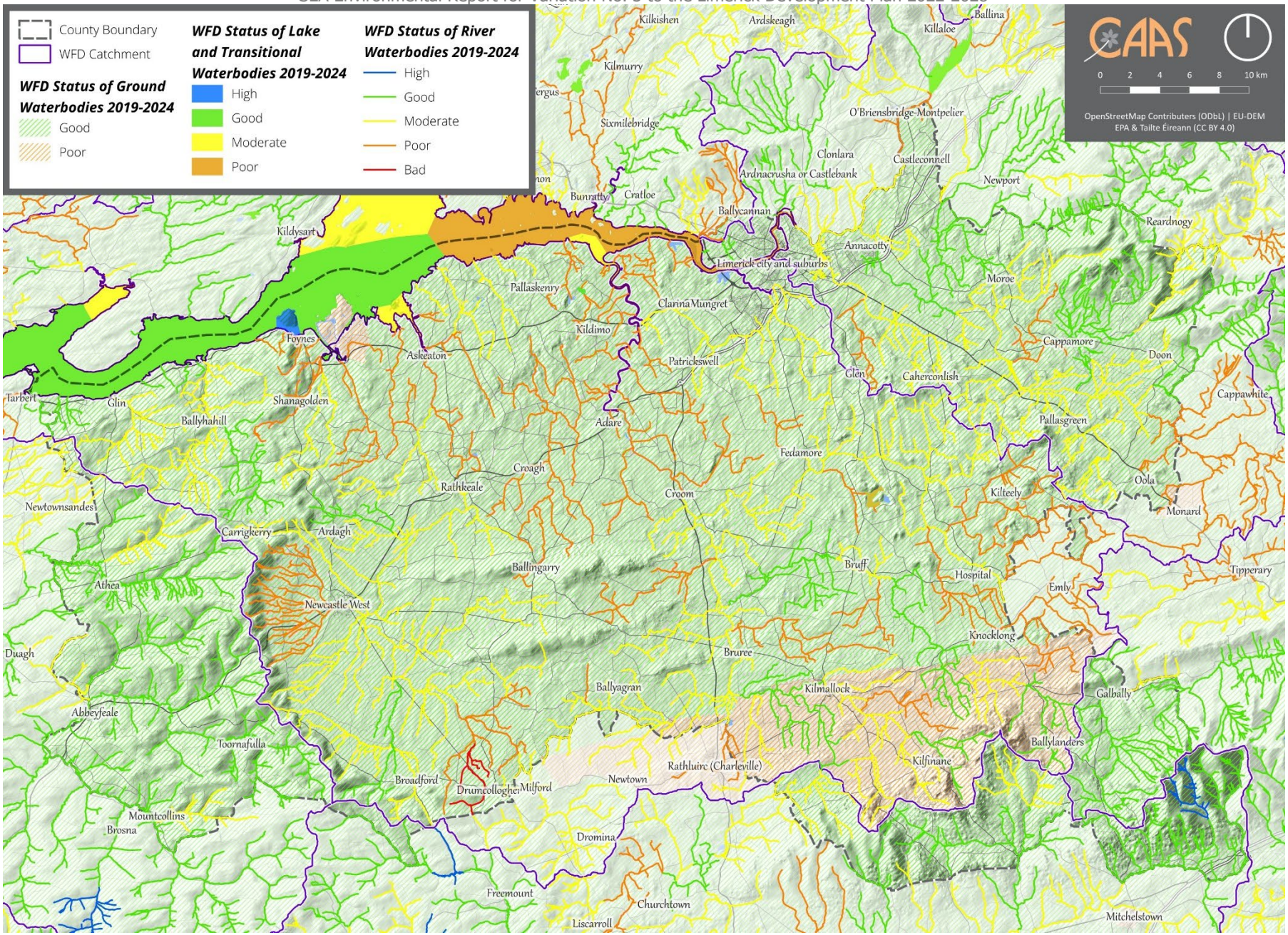


Figure 4.10 WFD Surface and Ground Waterbodies Status (2019-2024)



Figure 4.11 Entries to the WFD RPA for Nutrient Sensitive Areas and WFD RPA for Drinking Water

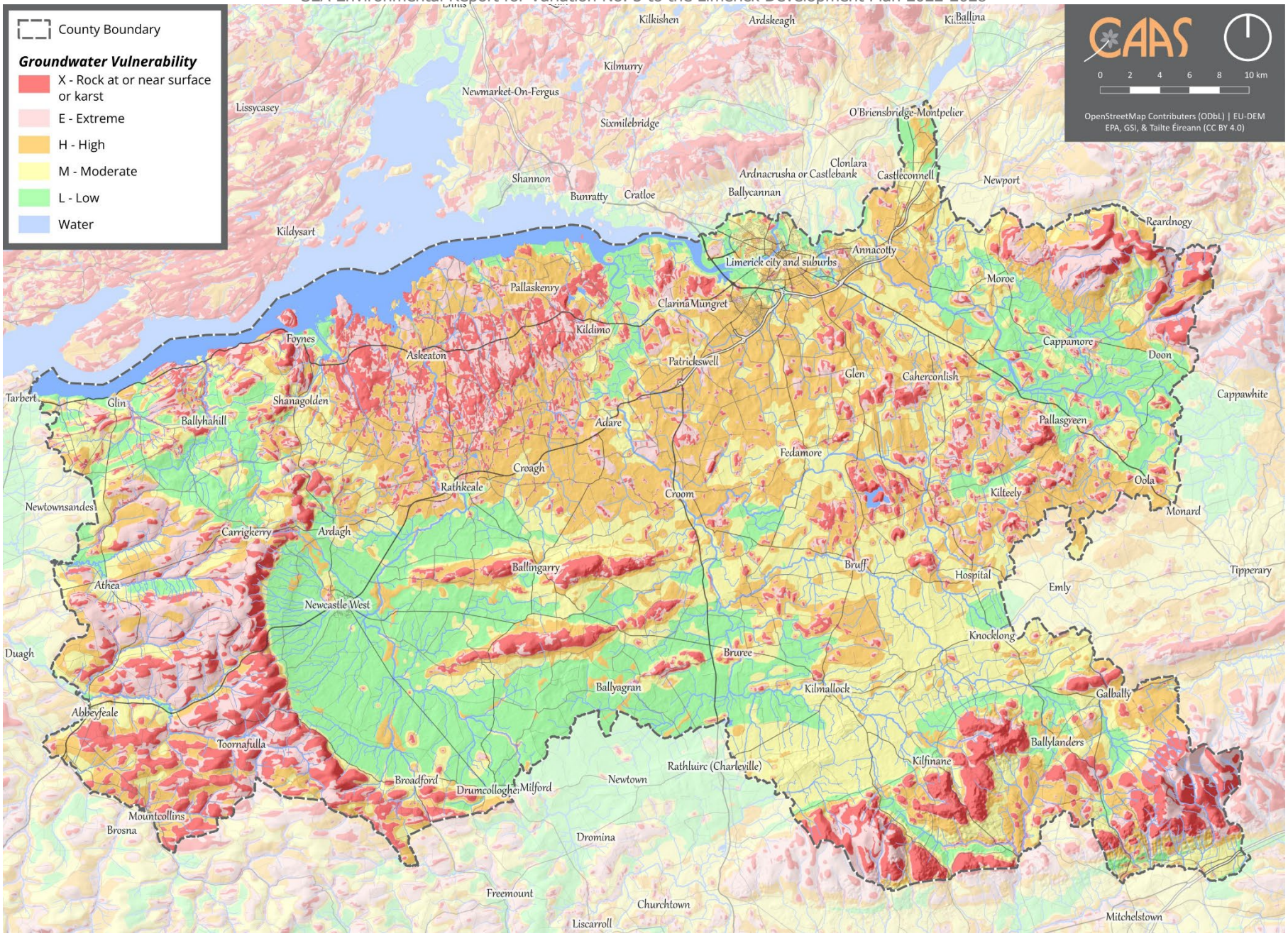


Figure 4.12 Groundwater Vulnerability

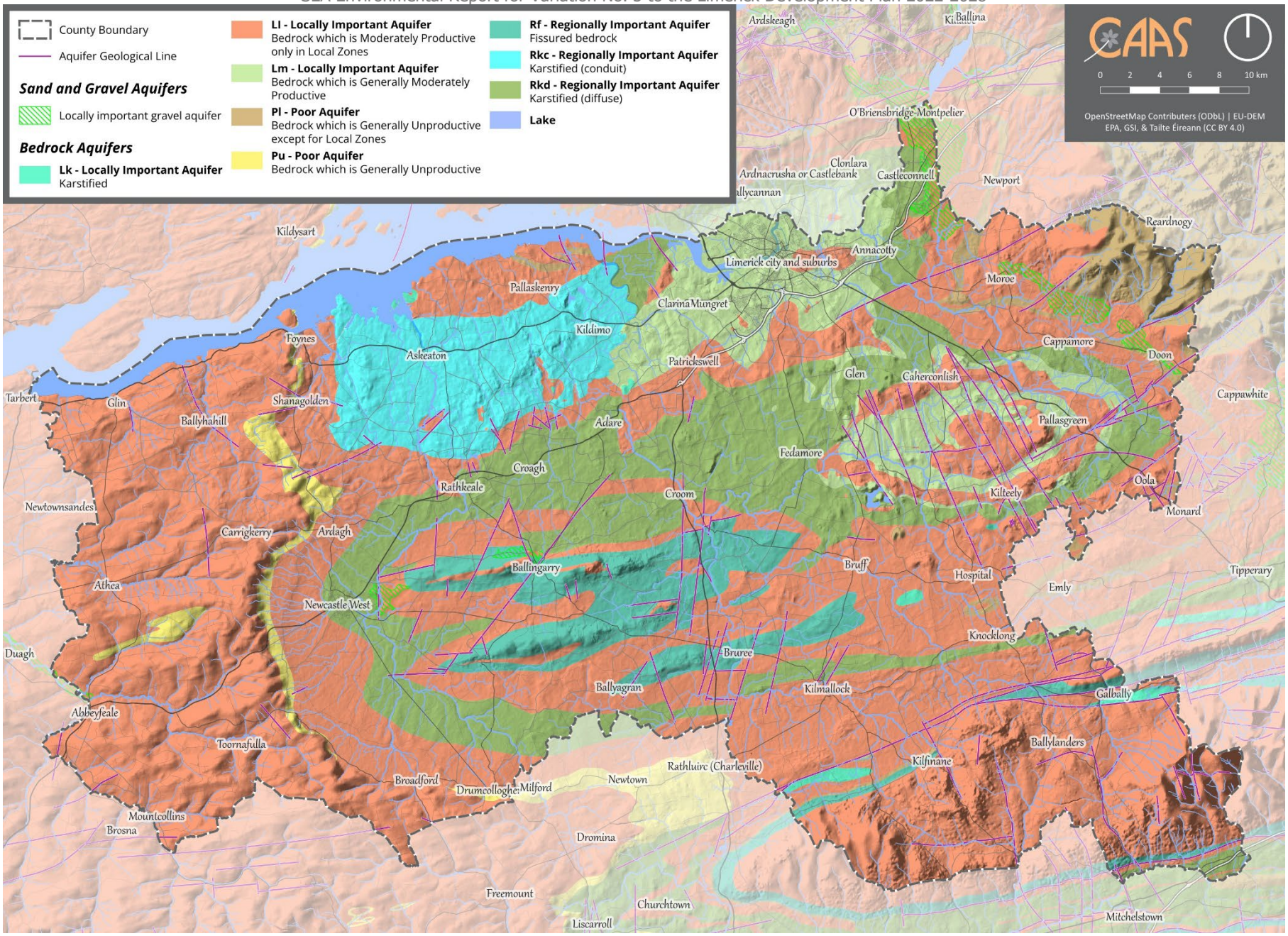


Figure 4.13 Groundwater Productivity

4.10 Air and Climatic Factors

4.10.1 Climatic Factors

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

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

In 2023, Ireland's greenhouse gas emissions are estimated to be 55.01 million tonnes carbon dioxide equivalent (Mt CO_2 eq), which is 6.8% lower (or 4.00 Mt CO_2 eq) than emissions in 2022 (59.00 Mt CO_2 eq) and follows a 2.0% decrease in emissions reported for 2022. Emissions are 1.2% below the historical 1990 baseline for the first time in 33 years.

In 2023, emissions in the stationary EU Emissions Trading System emissions (covering emissions from sectors including Agriculture, Transport, Energy, Industries, Residential, Manufacturing Combustion and Industrial Processes) decreased by 17%. When land use, land-use change and forestry is included, total national emissions decreased by 3.8%.

Emissions under the Effort Sharing Regulation (covering emissions from the electricity and heat generation, industrial manufacturing and aviation sectors) decreased by 3.4%.

Decreased emissions in 2023 compared to 2022 were observed in the largest sectors except for transport which showed an increase of 0.3%.

The EPA's 2025 publication *Ireland's Greenhouse Gas Emission Projections 2024-2055* provides an updated assessment of Ireland's total projected greenhouse gas emissions to 2055, using the latest Inventory data for 2023[31] as the starting point. The report provides an assessment of Ireland's progress towards achieving its national ambitions under the Climate Action and Low Carbon Development (Amendment) Act 2021 and EU emission reduction targets for 2030 as set out under the Effort Sharing Regulation[32]. Key findings identified as part of the report are that:

- Ireland is not on track to meet the 51 per cent emissions reduction target (by 2030 compared to 2018) which include many 2024 Climate Action Plan measures. Greenhouse gas emissions are projected to be 9 to 23 per cent lower by 2030 (compared to 2018) which places Ireland further from the 2030 national climate target compared to previous assessments.
- Budget period 1 (2021-2025) of 295 Mt CO_2eq is projected to be exceeded by between 8 to 12 Mt CO_2eq. Budget period 2 (2026-2030) of 200 Mt CO_2eq is also expected to be exceeded by a significant margin of 77 to 114 Mt CO_2eq (with carryover from Budget period 1).
- Sectoral emissions ceilings for 2030 are projected to be exceeded by the Buildings, Electricity, Industry and Transport sectors; and met by the sector 'Other'. A direct comparison of emissions in the Agriculture sector against its Sectoral Emission Ceilings is no longer viable due to significant refinement of the Agriculture inventory.
- Ireland is not projected to meet its EU target, set under the Effort Sharing Regulation, of a 42 per cent emissions reduction by 2030 (compared to 2005) even with flexibilities applied. This assessment shows that greenhouse gas emissions will be reduced by 10 to 22 per cent by 2030 (compared to 2005) without the use of flexibilities and by 13 to 26 per cent with the use of flexibilities.
- Additional measures and accelerated implementation of existing measures is necessary to meet both National and EU targets. Projected gaps to National and EU 2030 targets reported this year are larger than last year due to more conservative delivery of measures and associated estimates of emission reductions by 2030.
- From 21.4 Mt CO_2eq in 2018, total emissions from the Agriculture sector are projected to be between 18.0 and 21.6 Mt CO_2eq in 2030 (a 16 per cent reduction in the *With Additional Measures* "WAM" and 1 per cent increase in *With Existing Measures* "WEM"). Without full implementation of all planned policies and measures, there will be a net increase in emissions in this sector by 2030.
- Transport emissions are projected to decrease from 12.3 Mt CO_2eq in 2018 to between 9.7 Mt CO_2eq and 11.2 Mt CO_2eq in 2030 (a 9 to 21 per cent reduction). Measures that are projected to contribute to greater emissions reductions

[31] https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/irelands-final-greenhouse-gas-emissions-1990-2023.php

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

include 640,000 electric vehicles by 2030 and avoid/shift measures such as a 50 per cent increase in daily active travel journeys.
- From 10.6 Mt CO_2eq in 2018, emissions from the Energy Industries sector are projected to decrease to between 3.4 and 4.4 Mt CO_2eq in 2030 (a 59 to 68 per cent reduction). Renewable energy generation at the end of the decade is projected to range from 60 to 68 per cent of electricity generation.
- Emissions from the Residential Sector arise from fuel combustion for domestic space and hot water heating. These are projected to decrease from 7.0 Mt CO_2eq in 2018 to between 5.7 and 5.4 Mt CO_2eq in 2030 (a 19 to 22 per cent reduction). 571,000 domestic heat pumps are projected to be installed by 2030.
- Total emissions from the Land Use, Land Use Change and Forestry (LULUCF) sector are projected to increase over the period 2018 to 2030 by between 1.5 and 3.8 Mt CO_2eq (an increase of 39 to 95 per cent). It is unlikely with current planned measures that the target set under the EU LULUCF Regulation, and included in Climate Action Plan 2024, will be met. It is unlikely with current planned measures that the target set under the EU LULUCF Regulation, and included in Climate Action Plan 2024, will be met
- The ten Policies and Measures (WEM and WAM) estimated to achieve the largest potential GHG emission reductions in 2030 account for over three quarters of the total potential GHG emission reduction in 2030.

4.10.2 Climate Mitigation and Adaptation

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

The National Climate Action Plan 2025 is the third statutory update to the plan since the Climate Action and Low Carbon Development (Amendment) Act 2021 was signed into law, committing Ireland to 2030 and 2050 targets for reducing greenhouse gas emissions. It builds on Climate Action Plan 2024, outlining how Ireland will accelerate the actions required to respond to the climate crisis, putting climate solutions at the centre of Ireland's social and economic development.

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

The National Adaptation Framework (2024) aims to create a unified approach involving both government and society to adapt to climate change. It outlines how various sectors and local authorities can implement adaptation measures to minimise Ireland's vulnerability to climate change's adverse effects while taking advantage of any beneficial impacts. The Framework emphasises the importance of integrating adaptation strategies into all levels of policy making, infrastructure development, and local planning.

In 2018, four Climate Action Regional Offices were established for the purpose of coordinating climate action at regional and local levels. As specified in its Regional Spatial and Economic Strategy, the Southern Regional Assembly supports the work of the Climate Action Regional Offices.

The Limerick Climate Action Plan 2024-2029 seeks to reduce greenhouse gas emissions from across the Council's own assets and infrastructure by 51% by 2030, with net-zero emissions no later than 2050. The Climate Action Plan acknowledges the need to rebalance the transport system and it seeks to reduce the modal split of cars by 50% by 2029. It also identifies public transport and active travel as key enablers to achieve modal shift, while the BusConnects programme is identified within the Climate Action Plan as a key action to support a reduction in emissions. As identified by the Limerick Climate Action Plan, Limerick's Decarbonisation Zone is located in the heart of the city and includes much of Newtown Perry. Decarbonisation Zones are designated areas where local authorities implement climate mitigation and adaptation measures to reduce greenhouse gas emissions and promote low-carbon energy solutions.

4.10.3 Alternative Fuels and Renewable Electricity Generation Targets

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

The first Renewable Energy Directive (RED)[33] was the most important legislation influencing the growth of renewable energy in the EU and Ireland for the decade ending in 2020. From 2021, RED was replaced by the second Renewable Energy Directive (REDII)[34], which continues to promote the growth of renewable energy out to 2030. RED set out two mandatory targets for renewable energy in Ireland to be met by 2020, while REDII sets new targets and criteria to be met by Ireland in 2030 and the interim.

The overall renewable energy share is referred to as the overall Renewable Energy Sources (RES) target. REDII introduced a binding EU-wide target for overall RES of 32% in 2030 and required Member States to set their national contributions to the EU-wide target. REDII also set a target for the renewable energy share in transport sector. This is commonly referred to as the RES-T target. REDII set a RES-T target of 14% by 2030.

Given the need to speed up the EU's clean energy transition, the REDII was revised in 2023. The amending Directive EU/2023/2413 (REDIII) entered into force on 20 November 2023. REDIII sets an overall renewable energy target of at least 42.5% binding at EU level by 2030 - but aiming for 45%. RED III has increased the RES-T target to 29%. RED III also changed the scope of the RES-T to include additional forms of transport.

As per the updated National Energy and Climate Plan (NECP) 2021-2030, Ireland's overall RES target is 43% in 2030. The NECP includes RES trajectories transport – 16.3% with existing measures and 18.2% with additional measures.

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

4.10.4 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 new Directive on ambient air quality and cleaner air for Europe (2024/EC) simplifies EU rules on ambient air quality by merging the two existing EU directives into one[35]. Its goal is to bring quality standards in line with the World Health Organization (WHO) recommendations. The Directive introduces stricter limits on key air pollutants, aligning EU standards more closely with World Health Organization guidelines. The revised Directive prioritises the health of EU citizens: it sets new air quality standards for pollutants to be reached by 2030 which are more closely aligned with the WHO air quality guidelines. Those pollutants include, among others, particulate matter PM_{10} and $PM_{2.5}$, nitrogen dioxide and sulphur dioxide, all known to cause respiratory problems.

The EU Directive include details regarding how ambient air quality should be monitored, assessed and managed. In order to comply with the directive 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). In order to apply with European Directives relating to air quality, the EPA manages the National Ambient Air Quality Network and measures the levels of a number of atmospheric pollutants at monitoring stations across the country.[36]

Information on Particular Matter (PM) monitoring is available for Enniscorthy and New Ross from the EPA. PM is the main pollutant of concern in Ireland. It is responsible for a broad range of health impacts and decreased quality of life. PM consists of very small particles which can be solid or liquid. Some of these particles occur naturally, and many are man-made. The EPA monitors two types of PM and compares levels to limit values in the Cleaner Air for Europe Directive and World Health Organisation guidelines. These are PM_{10} and $PM_{2.5}$. In Ireland the main source – especially of the smaller and more impactful $PM_{2.5}$ particles – is solid fuel burning for home heating. PM_{10}

[33] Directive 2009/28/EC on the promotion of the use of energy from renewable sources.
[34] Directive (EU) 2018/2001 on the promotion of the use of energy from renewable resources (recast).

[35] Ambient Air Quality and Cleaner Air for Europe Directive 2008/50/EC and Fourth Daughter Directive 2004/107/EC
[36] For more detail on current daily air quality data refer to: https://gis.epa.ie/EPAMaps/.

particles are larger and can be made up of several sources, many of which can be natural sources such as pollen, or wind-blown sea salt and others are man-made sources such as pollution from road transport or construction activities. The daily limit for PM_{10} is 50 $\mu g/m^3$ and the limit is deemed breached if more than 35 exceedances occur during the year.

"Clean Air Together Limerick City"[37] is an EPA-led project, in partnership with Limerick City and County Council. The project aims to create a better understanding of NO_2 air pollution across our major cities. The air pollution measurements taken by citizens help verify national air quality maps produced using models developed within EPA's LIFE Emerald project[38]. The air quality maps and forecasts will be used to inform policies aimed at improving air quality and lowering levels of NO_2. The indicative results of the project show that NO_2 levels across Limerick's Metropolitan District area were generally low, with 73% of study results falling in the lowest NO_2 category (0-10 $\mu g/m^3$) and that higher levels of NO_2 were found along some of the busiest roads in Limerick City.[39]

The EPA's (2025) *Air Quality in Ireland 2024 Report* is based on data from Ireland's extensive air monitoring network of 115 stations. It reveals that, while Ireland currently meets EU air quality standards, it is projected to fall short of the stricter air quality standards set for 2030 under the new Ambient Air Quality Directive. The new EU Directive, part of the Zero Pollution Action Plan, aims to reduce premature deaths from air pollution by 55% by 2030. Ireland faces significant challenges in meeting these targets, with projected compliance levels of only 93 per cent for fine particulates ($PM_{2.5}$) and 78% for nitrogen dioxide (NO_2). Ireland also continues to fall short of achieving the more stringent World Health Organization health-based 2040 guidelines for several key pollutants. The report identifies that the primary sources of air pollution in Ireland are solid fuel burning and traffic emissions. The European Environment Agency estimates that in Ireland, more than 1,700 premature deaths annually are attributable to air pollution.

The EPA's *"Ireland's State of the Environment Report 2024"* 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. The key messages in "Chapter 2: Air" in the report are:

- While air pollution has reduced over recent decades, our understanding of the level at which it impacts health has grown. The World Health Organization (WHO) says that there is no safe level of air pollution.
- Currently, Ireland is not meeting the guidelines set by WHO for multiple pollutants including fine particulate matter and nitrogen dioxide. We can actively improve our local air quality by changing to more sustainable forms of transport and heating.
- Achieving Ireland's ambition, set out in the Clean Air Strategy, to move towards meeting the health-based WHO air quality guideline limits will be challenging, but will have a significant and positive impact on health. A road map of actions is required to deliver on the overall ambition and the 2026 and 2030 interim targets.
- Ireland is non-compliant with the EU reduction target for ammonia and will remain so in the short term. Meeting the 2030 emission reduction commitment is dependent on fully executing all known ammonia abatement measures at the farm level.

The Variation facilitates improvements in sustainable mobility, thereby facilitating reductions in and limiting increases of emissions to air. Such emissions would occur otherwise with higher levels of motorised transport and associated traffic.

4.10.5 Noise

Noise is unwanted sound. The Noise Directive - Directive 2002/49/EC relating to the assessment and management of environmental noise - is part of an EU strategy setting out to reduce the number of people affected by noise in the longer term and to provide a framework for developing existing EU policy on noise reduction from source. The Directive requires competent authorities in Member States to:

- Draw up *strategic noise maps* for major roads, railways, airports and agglomerations, using harmonised noise indicators and use these maps to assess the number of people who may be impacted upon as a result of excessive noise levels;

[37] Clean Air Together is a citizen science project where people voluntarily sign up to measure levels of NO_2 pollution in their local area. NO_2 is predominantly a traffic-related air pollutant that can cause negative health impacts. NO_2 particularly impacts children, people with pre-existing heart and lung conditions such as asthma, outdoor workers, the elderly, and those communities who may be more exposed to air pollution because of where they live or work.

[38] Ireland's 3-day forecast, hourly updated and annual high resolution air quality maps are all available on www.airquality.ie.

[39] https://www.cleanairtogether.ie/

- 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 EEA's *Environmental noise in Europe — 2025* report presents the latest data and analysis on noise pollution and its effects on human health and the environment across Europe. The report draws on information submitted by EU Member States and other EEA countries under the 2022 reporting round of the Environmental Noise Directive (END). The key findings of the report state that:

- Over 20% of Europeans are exposed to harmful transport noise levels.
- Road traffic is the most widespread source of transport noise, exposing an estimated 92 million people to levels above the END threshold of 55 dB for the day-evening-night period, compared to 18 million affected by rail traffic and 2.6 million by aircraft noise.
- When compared to other environmental health threats, transport noise ranks among the top three. Chronic exposure to noise from transport contributes to 66,000 premature deaths annually in Europe, while also leading to around 50,000 new cardiovascular disease cases and 22,000 cases of type 2 diabetes.
- Almost 16.9 million Europeans experience long-term annoyance due to noise from transport and approximately 4.6 million suffer from severe sleep disturbances.
- It is estimated that over half a million children in Europe experience reading difficulties and about 63,000 experience behavioural issues due to transport noise. High noise levels are also linked to approximately 272,000 cases of overweight children.
- Noise pollution from transport sources results in the loss of 1.3 million healthy life years annually in Europe, equivalent to an annual economic cost of at least EUR 95.6 billion, representing around 0.6% of the region's gross domestic product (GDP) each year.
- Based on current projections, it is unlikely that the EU will meet the target set out in 2021 EU action plan 'Towards zero pollution for air, water and soil' to reduce the number of people chronically disturbed by transport noise by 30% by 2030 (compared to 2017 levels) without additional measures, including regulatory or legislative changes.

In compliance with the Directive and transposing Environmental Noise Regulations (S.I. No. 140 of 2006), Noise Action Plans have been prepared for each local authority area within the country, including the Limerick Agglomeration Noise Action Plan 2024 - 2028. Noise Action Plans act as a means of managing environmental noise, and meeting the aim of the Regulations of preventing, and reducing where necessary, environmental noise. One of the key inputs into Noise Action Plans is the development of strategic noise maps. Noise maps identify and prioritise cluster areas which will require further assessment and may require mitigation measures to be put in place. Roads, and rail are the dominant noise sources within and surrounding Limerick City.

The EPA's *"Ireland's State of the Environment Report 2024"* 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. The key messages in "Chapter 3: Environmental Noise" in the report are:

- Environmental noise is the second biggest environmental cause of health problems in the EU. In Ireland, over 1 million people are likely to be exposed to noise levels above the mandatory reporting thresholds.
- National policy for environmental noise is not as well advanced as in other environmental areas.
- There is a need for coordinated national policy and actions around planning, health and transport infrastructure to reduce noise exposure.
- Local authorities, in collaboration with transport infrastructure bodies, need to focus implementation of noise action plans on the priority areas identified using strategic noise mapping.

4.10.6 Existing Problems

Significant progress is being made in the reductions of greenhouse gas emissions; however, Ireland is not on track to meet the 51% emissions reduction target (by 2030 compared to 2018) based on the projections contained in the latest (2025) assessment.

The Climate Change Advisory Council's *Annual Review 2025* outlines Ireland's commitment to achieving climate resilience by 2050, emphasizing the need for effective adaptation measures and coordinated government action, however, it points out that significant gaps remain in preparedness for extreme weather events, particularly in critical infrastructure such as electricity, water, and communication networks. The National Climate Change Risk Assessment and revised National Planning Framework are positive developments, but implementation of adaptation measures is urgently needed.

The Review details that four sectors (Transport, Flood Risk Management, Built and Archaeological Heritage, and Local Government) demonstrated good overall progress, four showed moderate progress (Agriculture, Forestry and Seafood, National Adaptation Framework, Electricity and Gas Networks, and Water Quality and Water Services Infrastructure), two showed limited progress (Communications Networks and Health), and one sector (Biodiversity) showed no progress and supplied insufficient evidence.

The overall results showed a slight decline compared with the results in 2024 review; however, the transport sector was one of the four sectors that demonstrated good overall progress in the 2025. The transport sector has made significant progress in climate adaptation, particularly in enhancing infrastructure resilience and exploring innovative solutions. However, the review emphasizes the need for sustained investment, improved planning, and stronger cross-border collaboration to address vulnerabilities and ensure long-term resilience in the face of increasing climate risks.

Air quality and noise can present challenges, especially in urban areas, as detailed under the relevant sub-sections above. With regard to air quality, air pollution from transport is dominated by NO_x emissions. Of these, NO_2 is particularly impactful from a health perspective. The Variation will help to facilitate reductions in emissions and a transition from dependence on fossil fuel combustion powered transport.

4.11 Material Assets

Other material assets, in addition to those detailed below, covered by the SEA include archaeological and architectural heritage (see Section 4.12) and 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 Variation, if unmitigated, include: resources such as public open spaces, parks and recreational areas; public buildings and services; transport and utility infrastructure (electricity, gas, telecommunications, water supply, waste water infrastructure etc.); and natural resources that are covered under other topics such as water and soil.

4.11.2 Land

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

4.11.3 Green Infrastructure

There is a variety of green infrastructure throughout Limerick. Parks and open space promote health and well-being, provide recreational facilities and range of habitats for various species. Green Infrastructure is also a crucial component in building resilient communities capable of adapting to the consequences of climate change with trees, woodlands and wetlands providing carbon capture and slowing water flows while improving air quality.

4.11.4 Woodland

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

4.11.5 Transport

Public transport in Limerick consists of bus, rail, rural transport services and taxi services. Limerick occupies a strategic location on the national road network, with a large number of national routes traversing through it.

There are local services that provide connections between settlements within Limerick and regional services that provide connections to the wider region and beyond.

There are three established rail transport corridors that serve Limerick, including Nenagh/Ballybrophy, Ennis/Galway and Dublin, together with the interchange at Limerick

Junction for Cork/Tralee and Waterford. The three corridors converge at Limerick Colbert Station, which is progressing as a major transport hub for Limerick, providing a transformational integrated sustainable transport network. Castleconnell is the only operating station outside of Limerick City.

There are a number of Local Link bus routes in operation throughout Limerick, which provide vital public transport links for rural areas to key settlements within Limerick. In addition to bus routes operated under the Rural Transport Initiative, private bus operators service both urban centres and rural communities.

Limerick is strategically positioned within close proximity to Shannon International Airport and has significant port facilities in the natural harbour of the Shannon Estuary. These comprise of the ShannonFoynes deep-water cargo port, Limerick Docks in Limerick City and a jetty facility at Aughinish, between Foynes and Askeaton.

4.11.6 Minerals and Aggregates

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.

Mineral localities within Limerick are mapped on Figure 4.14.

4.11.7 Water Services

4.11.7.1 Wastewater

The EPA's 2025 report *'Urban Waste Water Treatment in 2024'* identified that:

- 14 large urban areas that did not meet European Union treatment standards in 2024 require improvements to comply with these standards and protect the environment;
- 15 towns and villages discharging raw sewage into the environment every day must be connected to wastewater treatment plants;
- 6 collecting systems (sewers) were subject to a judgement from the Court of Justice of the European Union and must be prioritised;
- 34 priority areas require improvements to protect rivers, lakes, estuaries and coastal waters that are adversely impacted by wastewater;
- 3 collecting systems must be upgraded to prevent sewage pollution at bathing waters that were classified as having poor water quality; and
- 10 areas need improvements in wastewater treatment to protect endangered freshwater pearl mussels.

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

There are currently three Wastewater Treatment Plants (WWTPs) within Limerick, Foynes (D0502-01), Glin (D0504-01) and Hospital (D0314-01) listed as priority areas[40], where improvements are required to resolve urgent environmental issues, such as significant pressures on waters at risk of pollution.

From January 2014, Irish Water, now Uisce Éireann, became responsible for all public water services, involving the supply of drinking water and the collection, treatment and disposal of wastewater. Uisce Éireann is also responsible for the treatment and disposal of the sludge that is generated from both its water and waste water treatment plants. The Council is an agent of Uisce Éireann 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 Limerick.

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

Uisce Éireann, working in partnership with Limerick City and County Council, is making investments to undertake essential upgrade works to waste water treatment plants in towns and villages across Limerick. The upgrading of

[40] https://www.epa.ie/publications/compliance--enforcement/waste-water/priority-areas-list.php (December 2025)

infrastructure will contribute towards compliance with the Water Framework Directive, EU Urban Waste Water Treatment Directive and Drinking Water Regulations and will help to protect human health and maintain the quality of surface and ground waters.

4.11.7.2 Wastewater Infrastructure

The provision of well-maintained quality wastewater treatment infrastructure is essential to facilitate sustainable development of the town while also protecting the environment and public health. Uisce Éireann is now responsible for the collection, treatment and disposal of wastewater where public wastewater facilities exist.

As indicated by Uisce Éireann, spare capacity is available in most WWTPs within Limerick (including spare capacity within Limerick City and suburbs), except for Newcastle West WWTP, Murroe WWTP, Askeaton WWTP, Dromcollagher WWTP, Oola WWTP, Banogue WWTP, Croagh WWTP, Elton WWTP and Shanagolden WWTP, where there is no spare capacity available at present. In cases where a new development is planned, Uisce Éireann may need to make upgrades to the wastewater network to support the collection of the new load and to mitigate the risk of flooding from occurring to the existing infrastructure. Table 4.2 shows detail on most recent Uisce Éireann wastewater treatment capacity information within the existing WWTPs in Limerick.

The most recent and available EPA compliance and performance information for the WWTPs serving Limerick can be accessed on leap.epa.ie.

4.11.7.3 Water Supply

Uisce Éireann is responsible for providing and maintaining adequate public water supply infrastructure throughout Limerick. Public group water schemes are maintained and monitored by Limerick City and County Council.

As indicated by Uisce Éireann, spare capacity or potential capacity is available in most of drinking water supplies in Limerick, except for Oola/Pallsgreen WSP and Doon WSP, where capital investment required to increase capacity. Table 4.3 shows detail on most recent Uisce Éireann drinking water treatment capacity information within the existing Water Resource Zones in Limerick.

Under Section 58 of the Environmental Protection Agency Act 1992, the EPA is required to collect and verify monitoring results for all water supplies in Ireland covered by the European Communities (Drinking Water) Regulations, 2000. The EPA publishes their results in annual reports that are supported by Remedial Action Lists (RALs). The RAL identifies water supplies that are not in compliance with the Regulations mentioned above. The most recent EPA Remedial Action List (Q4 of 2025, published in 2025)[41] identifies three Public Water Supplies (PWS) within Limerick:

- Adare PWS - due to Treatment and Management Issues, proposed action includes rationalisation of supply by December 2028.
- Limerick City and Environs PWS - due to elevated levels of trihalomethanes (THMs) above the standard in the Drinking Water Regulations, proposed action is to identify and implement optimum solution to minimise formation of THMs by December 2028.
- Foyes/Shannon Estuary PWS - due to elevated levels of pesticides above the standard in the Drinking Water Regulations, where catchment focused measures are being undertaken.

4.11.7.4 Surface Water Drainage

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

4.11.8 Waste Management

The National Waste Management Plan for a Circular Economy (Regional Waste Management Planning Offices, 2024) sets out a framework for the prevention and management of waste in Ireland for the period 2024 to 2030. The Development Plan to which the Variation relates seeks to influence sustainable

[41] Available at: https://www.epa.ie/publications/compliance--enforcement/drinking-water/annual-drinking-water-reports/Q2-2025-RAL-for-web.pdf

consumption and prevent the generation of waste, improve the capture of materials to optimise circularity and enable compliance with policy and legislation.

4.11.9 Existing Problems

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

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

Table 4.2 Wastewater treatment capacity register for Limerick[42]

Settlement	Wastewater Treatment Plant (WWTP)	Reg #	Indication of Available Capacity	WWTP Project Planned/Underway
Limerick City and suburbs	Limerick WWTP***	D0013	• Green	Yes
Limerick City and suburbs	Castletroy WWTP***	D0019	• Green	Yes
Newcastle West	Newcastle West WWTP	D0108	• Red	Yes
Abbeyfeale	Abbeyfeale WWTP	D0115	• Green	
Killmallock	Kilmallock WWTP	D0106	• Green	
Caherconlish	Caherconlish WWTP	D0308	• Green	
Rathkeale	Rathkeale WWTP	D0112	• Green	
Murroe	Murroe WWTP	D0306	• Red	
Croom	Croom WWTP****	D0307	• Amber	
Askeaton	Askeaton WWTP	D0315	• Red	Yes
Adare	Adare WWTP***	D0312	• Amber	Yes
Bruff	Bruff WWTP	D0313	• Green	
Kilfinnane	Kilfinnane WWTP	D0305	• Amber	
Hospital	Hospital WWTP	D0314	• Amber	Yes
Pallaskenry	Pallaskenry WWTP	D0304	• Amber	
Cappamore	Cappamore WWTP	D0310	• Amber	
Bruree	Bruree WWTP	D0506	• Green	
Glin	-	D0504	• Amber	Yes
Pallasgreen	Pallasgreen WWTP	D0503	• Green	
Ballingarry	Ballingarry (Limerick) WWTP	D0507	• Amber	
Foynes	-	D0502	• Amber	Yes
Dromcollagher	Dromcollagher WWTP	D0316	• Red	Yes
Doon	Doon WWTP	D0309	• Amber	
Athea	Athea WWTP	D0508	• Green	
Oola	Oola WWTP	D0505	• Red	
Ardagh (LK)	Ardagh WWTP	A0214	• Green	
Askeaton Housing Estate	Askeaton Housing Estate (Lismakeera) WWTP	A0503	• Green	
Ballyagran	Ballyagran WWTP	A0207	• Green	
Ballyhahill	Ballyhahill WWTP	A0206	• Green	
Ballylanders	Ballylanders WWTP	A0196	• Green	
Banogue	Banogue WWTP	A0215	• Red	
Broadford	Broadford WWTP	A0222	• Green	
Brookhaven	Brookhaven, Montpelier WWTP	A0499	• Green	
Carrigkerry	Carrigkerry WWTP	A0213	• Green	
Castlemahon	Castlemahon WWTP**	A0218	• Green	
Cluaindara (Anglesborough)	Cluaindara (Anglesborough) WW	A0500	• Green	
Croagh	Croagh WWTP	A0216	• Red	
Elton	Elton WWTP	A0211	• Red	
Fedamore	Fedamore WWTP	A0204	• Green	
Feenagh	Feenagh WWTP	A0220	• Green	
Galbally	Galbally WWTP	A0208	• Green	Yes
Glenfield	Kilmallock WWTP	D0106	• Green	
Herbertstown	Herbertstown WWTP	A0224	• Green	
Kilbeheny (Knockrour)	Kilbeheny (Knockrour) WWTP	A0502	• Green	
Kilmeedy	Kilmeedy WWTP	A0212	• Green	
Kilteely	Kilteely WWTP	A0209	• Green	
Knocklong	Knocklong WWTP	A0210	• Green	
Loghill	Loghill WWTP *	A0217	• Green	
Mountcollins	Mountcollins WWTP	A0223	• Green	
Shanagolden	Shanagolden WWTP *	A0219	• Red	
Strand (Cois na Habhainn)	Strand (Cois na Habhainn) WWTP	A0498	• Green	

[42] Uisce Éireann, August 2025: https://www.water.ie/connections/developer-services/capacity-registers/wastewater-treatment-capacity-register/limerick

Templeglentan	Templeglentan WWTP	A0205	• Green	
Tournafulla	Tournafulla WWTP *	A0221	• Green	

Notes:

* Multiple WWTPs serve this agglomeration - available headroom, where indicated, may not be available across the entire agglomeration.

**Capacity based on primary treatment only.

***Limerick WWTP also services the following settlements in Limerick: Patrickswell, Clarina, Mungret. Castletroy WWTP also services Castleconnell.

**** Potential spare capacity. Connection applications and enquiries currently being processed may impact on capacity availability. Connection applications will be assessed on an individual basis considering their specific load requirements, engagement with Uisce Éireann's Connections and Developer Services Team ahead of planning a project is required.

This register provides an indication of available wastewater treatment capacity based on loads received in 2023 and available treatment plan capacity now or by completion of a project at construction (where relevant).

• Green = spare capacity available.

• Amber = potential spare capacity, additional analysis of applications may be required on an individual basis considering their specific load requirements. Potential availability of capacity in this case would be dependent on any additional load not resulting in a significant breach of the combined approach as set out in Regulation 43 of the Wastewater Discharge (Authorisation) Regulations 2007, which is a matter for the relevant Planning Authorities to determine.

• Red = no spare capacity available at present.

Project planned or underway to increase capacity and/or improve treatment performance, based on available information in December 2024.

The register provides commentary on the available capacity at the WWTP, it does not consider the capacity of the sewer network.

The information in this register has been determined based on a standardised national review of the available information and is subject to change.

Table 4.3 Drinking water treatment capacity register for Limerick[43]

Settlement Name	Water Resource Zone Name (WRZ)	Indication of available capacity to support 2034 population targets
Limerick city and suburbs	Limerick City	Capacity Available
Newcastle West	South West Regional	Potential Capacity Available - LoS improvement required
Annacotty	Limerick City	Capacity Available
Castleconnell	Limerick City	Capacity Available
Abbeyfeale	Abbeyfeale Water Supply	Potential Capacity Available - LoS improvement required
Kilmallock	Glenosheen/Jamestown/ Kilmallock	Potential Capacity Available - LoS improvement required
Caherconlish	Limerick City	Capacity Available
Rathkeale	Rathkeale	Potential Capacity Available - LoS improvement required
Moroe	Murroe/Cappamore /Foileen	Potential Capacity Available - LoS improvement required
Croom	Croom Water Supply	Capacity Available
Askeaton	Shannon Estuary Water Supply	Potential Capacity Available - LoS improvement required
Adare	Adare	Capacity Available
Patrickswell	Limerick City	Capacity Available
Bruff	Bruff Water Supply	Potential Capacity Available - LoS improvement required
Kilfinane	KilfinnaneArdpatrick Water Supply	Potential Capacity Available - LoS improvement required
Hospital	Knocklong/ Hospital	Potential Capacity Available - LoS improvement required
Pallaskenry	Shannon Estuary Water Supply	Potential Capacity Available - LoS improvement required
Cappamore	Murroe/Cappamore /Foileen	Potential Capacity Available - LoS improvement required
Bruree	Rockhill & Bruree	Capacity Available
Glin	Glin Water Supply	Potential Capacity Available - LoS improvement required
Pallasgreen	Oola/Pallasgreen	Capital Investment Required
Ballingarry	Ballingarry	Potential Capacity Available - LoS improvement required
Foynes	Shannon Estuary Water Supply	Potential Capacity Available - LoS improvement required
Drumcollogher	South West Regional	Potential Capacity Available - LoS improvement required
Doon	Doon Water Supply	Capital Investment Required
Glen	Limerick City	Capacity Available

[43] Uisce Éireann, August 2025: https://www.water.ie/connections/developer-services/capacity-registers/water-supply-capacity-register/limerick

Kildimo	Shannon Estuary Water Supply	Potential Capacity Available - LoS improvement required
Athea	Abbeyfeale Water Supply	Potential Capacity Available - LoS improvement required
Fedamore	Fedamore Water Supply	Potential Capacity Available - LoS improvement required
O'Briensbridge-Montpelier	Obriens Bridge PWS	Potential Capacity Available - LoS improvement required
Oola	Oola/Pallasgreen	Capital Investment Required
Ballylanders	Ballylanders Water Supply	Potential Capacity Available - LoS improvement required
Shanagolden	Shannon Estuary Water Supply	Potential Capacity Available - LoS improvement required
Clarina	Limerick City	Capacity Available
Mungret	Limerick City	Capacity Available
Broadford	South West Regional	Potential Capacity Available - LoS improvement required
Knocklong	Knocklong/Hospital	Potential Capacity Available - LoS improvement required
Galbally	Galbally Water Supply	Potential Capacity Available - LoS improvement required
Mountcollins	Abbeyfeale Water Supply	Potential Capacity Available - LoS improvement required
Carrigkerry	Carrigkerry Water Supply	Potential Capacity Available - LoS improvement required
Ballyagran	Castletown Ballyagran Water Supply	Capacity Available
Toornafulla	Abbeyfeale Water Supply	Potential Capacity Available - LoS improvement required
Ardagh	South West Regional	Potential Capacity Available - LoS improvement required
Kilteely	Kilteely	Capacity Available
Ballyhahill	Shannon Estuary Water Supply	Potential Capacity Available - LoS improvement required

Notes:

• Capacity Available = Capacity Available to meet 2034 population targets.

• Capacity Available - LoS improvement required = Capacity Available to meet 2034 population targets - Level of service (LoS) improvement required. Leakage reduction and/or capital investment will be required to maintain/improve levels of service as demand increases. These proposals will be developed & prioritised through the National Water Resources Plan and investment planning process.

• Potential Capacity Available - LoS improvement required = Potential Capacity Available to meet 2034 population targets - Level of service (LoS) improvement required. Capacity constraints exist and additional analysis of Pre-connection Enquiries and Connection Applications will be undertaken as required by UÉ on an individual basis considering their specific load requirements. Improvement proposals will include but are not limited to leakage reduction and/or capital investment. These proposals will be required to maintain/improve levels of service as demand increases. These proposals will be developed & prioritised through the National Water Resources Plan and investment planning process.

• Capital Investment Required = Capacity Not Available - capital investment required to increase capacity. These proposals will be developed & prioritised through the National Water Resources Plan and investment planning process.

Level of Service (LoS) refers to the reliability of the supply that our customers can expect to receive and is expressed as a frequency or return period of supply failure. For example, if the LoS is stated as 1 in 50, as a consumer, you would only ever expect to experience a water outage or severe limitations to your supply, on average, once every 50 years.

A WRZ (Water Resource Zone) is an independent water supply system serving a region, city, town or village and is governed by topography or the extent of the water distribution network in an area. A WRZ may include multiple Water Treatment Plants and/ or sources. Where settlements are served by multiple WRZs, the WRZ serving the largest area of the settlement is generally shown above.

This register provides commentary on the ability of Water Resource Zone to supply water to support the planned growth, it does not consider the capacity of the distribution network. Water network capacity will be subject to separate review and consideration upon a pre-connection enquiry or connection application being made to UÉ.

The capacity available within a WRZ changes regularly based upon the demands received from new and existing customers. This register is only an indication of available capacity at the date of issue and is subject to change.

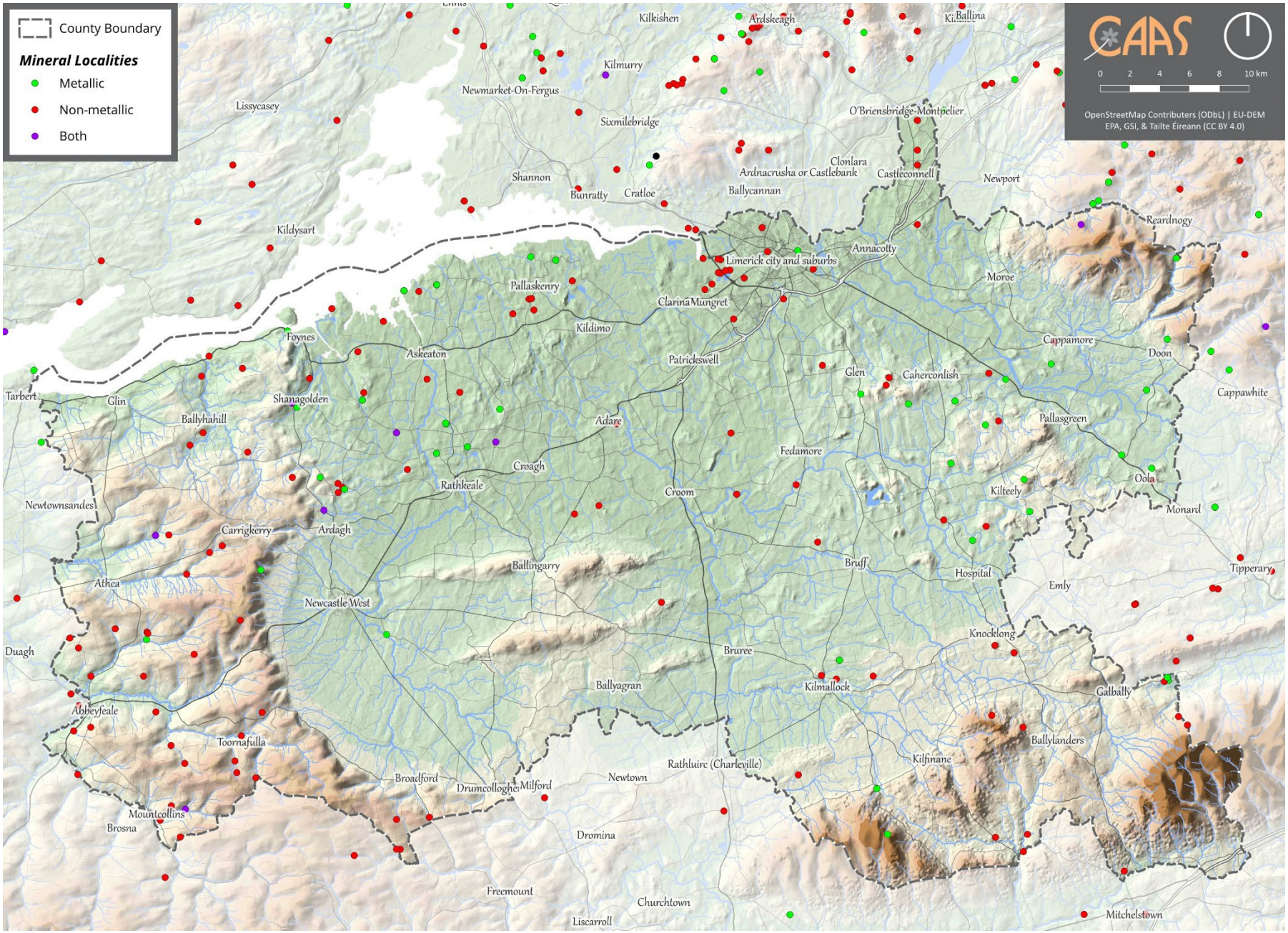


Figure 4.14 Mineral Localities

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, urban archaeological deposits and underwater features.

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

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

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

Figure 4.15 shows the spatial distribution of Recorded Monuments within and beyond Limerick and their associated Zones of Notification. There are hundreds of Recorded Monuments within Limerick, including examples of megalithic tombs, churches, castles, linear earthwork and ringforts. Clusters of archaeological heritage are identified within and surrounding settlements. There are many Recorded Monuments (including several Monuments in State Care) within Limerick City, concentrated around the north-west parts of the city centre area, including two National Monuments in State Care: King John's Castle and Fanning's Castle.

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, 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.

Waterbodies within and surrounding Limerick 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[44] of the structure;
- Any other structures lying within that curtilage and their interiors; and,
- All fixtures and features that form part of the interior or exterior of any structure or structures referred to in subparagraph (i) or (iii).

There are numerous Protected Structures within and surrounding Limerick (as shown on Figure 4.16). Similar to the general spatial spread of archaeological heritage, clusters of architectural heritage are indicated within the County's settlements and in certain rural areas.

Much of Limerick City's architectural heritage is characterised by a unique urban 18th and 19th century streetscape, centred around Newtown Pery. The area retains a fine grid pattern of broad streets and elegant Georgian townhouses, many of which are protected structures and contribute strongly to the City's architectural and cultural identity. The area represents one of the country's most intact examples of Georgian urban design.

An Architectural Conservation Area (ACA) is a place, area, group of structures or townscape, which is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or contributes to the appreciation of a Protected Structure. An ACA may or may not include Protected Structures. In an ACA, protection is placed on the external appearance of such areas or structures.

There various ACAs designated across Limerick, including a number of ACAs designated in Limerick City (as shown on Figure 4.16).

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

4.12.3 Existing Problems

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

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

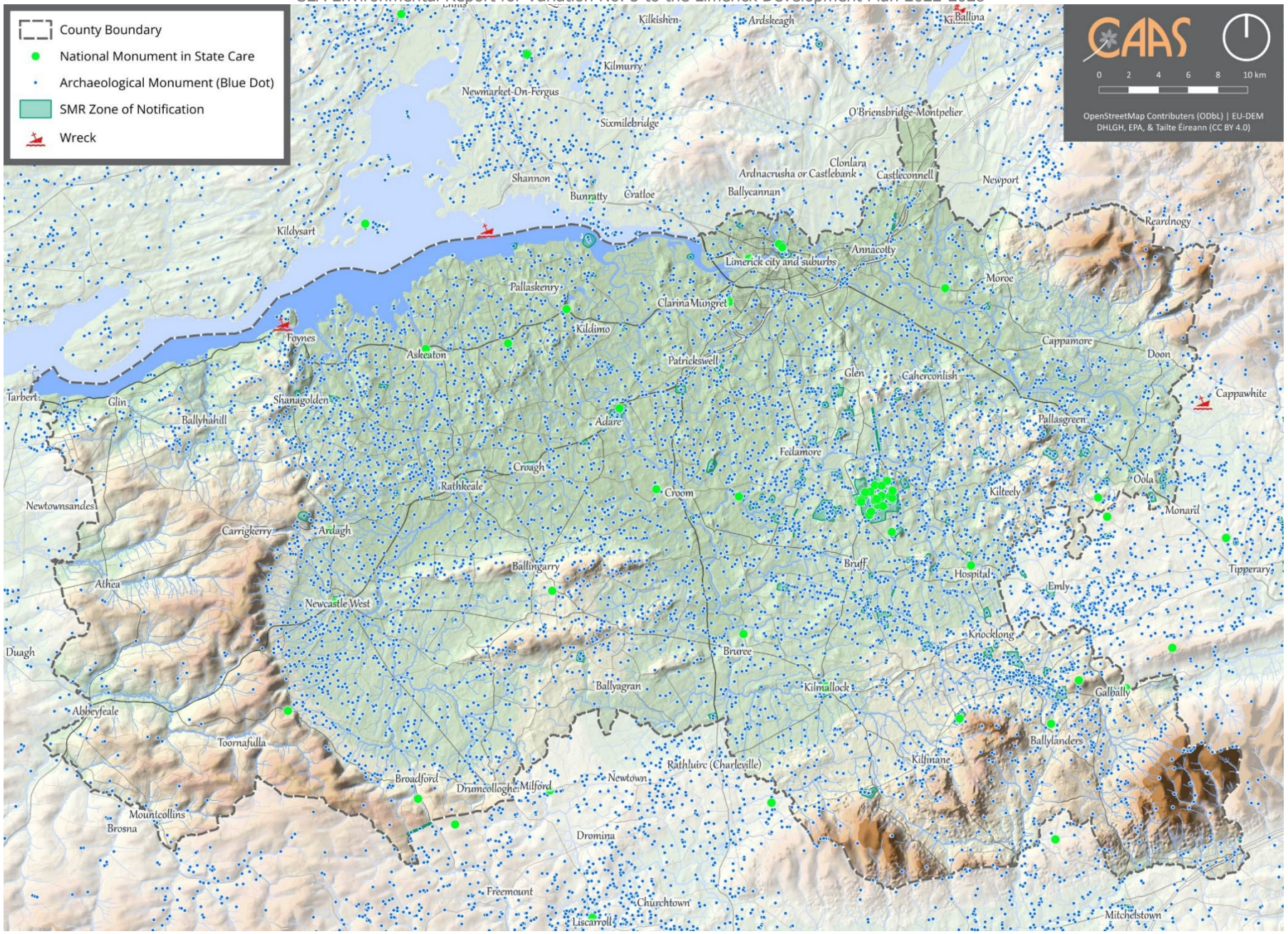


Figure 4.15 Archaeological Heritage

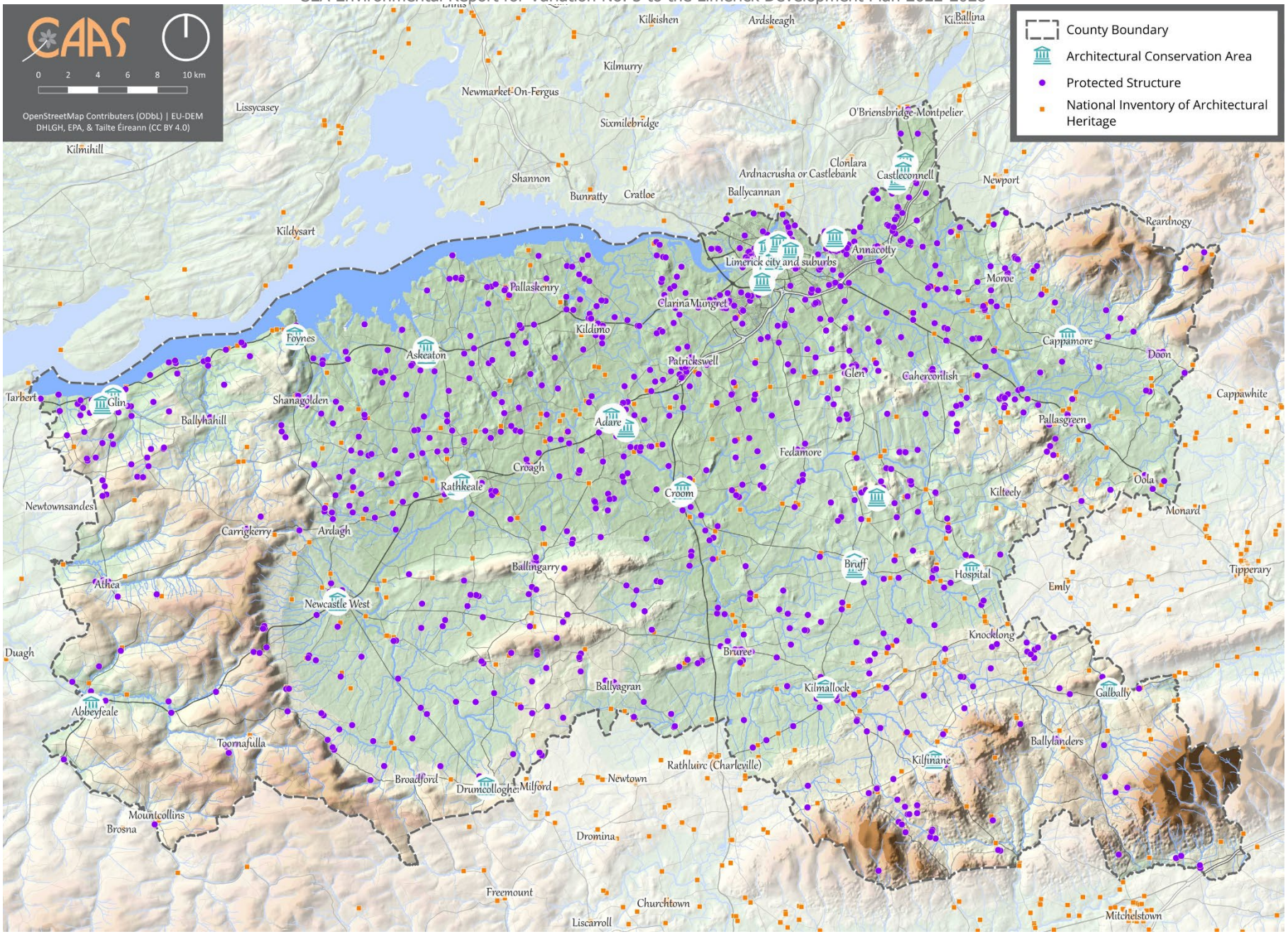


Figure 4.16 Architectural Heritage

4.13 Landscape

4.13.1 Introduction

Article 1 (a) of the European Landscape Convention provides a definition of landscape as follows; "Landscape means an area, as perceived by people whose character is the result of the action and interaction of natural/or human factors". The Convention was ratified in Ireland in 2002, requiring the adoption of national measures to promote landscape, planning, protection and management. The importance of landscape and visual amenity and the role of its protection are recognised in the Planning and Development Act 2025 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.

Limerick is characterised by a diverse and gently varied landscape with river valleys, fertile lowlands, uplands and coastal areas. The lowland landscape is framed and enriched by prominent natural features such as the River Shannon and its estuary, which form a distinctive, expansive water-dominated landscape of high scenic, ecological and cultural value. To the south and east, the landscape rises to the Ballyhoura and Slieve Felim uplands, introducing a more rugged character of elevated ridgelines, forestry, bogland and open views.

Limerick City comprises a combination of natural and urban environments. The Shannon estuary runs through the centre of the city, stretching into the Atlantic Ocean on Ireland's south-west coast. The city centre and surrounding hinterlands are largely urban, containing a variety of heritage sites, public parks, trees and open spaces.

The different landscapes found across Limerick have varying visual and amenity values, topography, exposure levels and contain a variety of habitats. Each landscape type has varying capacity to absorb development related to its overall sensitivity.

4.13.2 Landscape Character Assessment

The purpose of landscape character assessment is to provide the foundation for policy formulation and decision making for landscape management.

The Limerick Development Plan 2022-2028 identifies ten rural Landscape Character Areas within the Council's administrative area (shown on Figure 4.17):

- LCA 1 Agricultural Lowlands
- LCA 2 Ballyhoura/Sileve Reagh
- LCA 3 Galtee Uplands
- LCA 4 Knockfierna
- LCA 5 Lough Gur
- LCA 6 Shannon Coastal Zone
- LCA 7 Southern Uplands
- LCA 8 Slieve Felim Uplands
- LCA 9 Tory Hill
- LCA 10 Western Uplands (Western Hills/Barnagh Gap/Sugar Hill)

There are also four Urban Character Areas identified in Limerick City (shown on Figure 4.17):

- City
- Southern environs
- Castletroy
- Caherdavin

Limerick contains many sites and vantage points from which scenic views over areas of great natural beauty, local landmarks, historic landscapes, Shannon Estuary and adjoining Counties, may be obtained. Due to the topography of Limerick City, its quality townscapes, riverscapes and landscapes, as well as its visual landmarks, there are many views of significance within the City. The City has a number of linear views consisting of landmark buildings, such as King John's castle, the City walls and City skyline. River prospects are also important and usually, though not exclusively, experienced while crossing a bridge. River prospects in this instance refer to the ability to see landmark building(s) from bridges.

In addition, Limerick also contains important prospects i.e. prominent landscapes or areas of special amenity value, or special interest, which are widely visible from the surrounding area. While views and prospects can be an attraction in their own right, they can also serve to complement other nearby attractions. Examples include the routes in the south east of Limerick, such as those close to Galbally, Ardpatrick and Ballylanders which provide an additional attraction for the area, to complement the Ballyhoura Mountain bike trail. New recreational cycle routes, with Kilmallock as a hub, have also been developed in this area. The Lough Gur and Tory hill views and prospects further complement the attractions of

these areas. In the east of Limerick, the Slieve Felim way route close to Murroe, makes an attractive walking route to complement the attractions of the Clare Glens.

Views and Prospects within Limerick are mapped on Figure 4.17.

4.13.3 Landscape Designations in Neighbouring Counties

County Clare borders Limerick to the north and west, with the River Shannon and Shannon Estuary forming a defining landscape feature between the two counties. The Limerick Development Plan designates Seascape Character Areas and Scenic Routes and Protected Views, particularly along the Shannon corridor and elevated upland areas.

County Tipperary borders Limerick to the east and south - east. The Tipperary County Development Plan 2022 – 2028 identifies Landscape Character Types and Areas, including. Landscapes adjoining Limerick are strongly influenced by the Shannon River corridor, as well as lowland agricultural plains and transitional foothill areas. In addition to landscape character areas, the Plan identifies a defined schedule of Scenic Routes and Scenic Views.

County Cork borders Limerick to the south and south-west. The Cork County Development Plan 2022 – 2028 identifies Landscape Character Types and High Value Landscapes. The landscape along the Limerick – Cork border is primarily characterised by fertile lowlands, river valleys and transitional upland areas, particularly associated with the Munster Blackwater catchment and upland ridges to the west. The Plan also designates Scenic Routes and Scenic Views, landscape sensitivity and visual amenity.

County Kerry borders Limerick to the west, with the Shannon Estuary providing a prominent physical and visual boundary between the two counties. The Kerry County Development Plan 2022 – 2028 identifies Visually Sensitive Areas and a network of Views and Prospects. Landscapes adjoining Limerick include low-lying estuarine landscapes, rural hinterlands and transitional agricultural areas associated with the Shannon Estuary.

4.13.4 Existing Environmental Problems

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

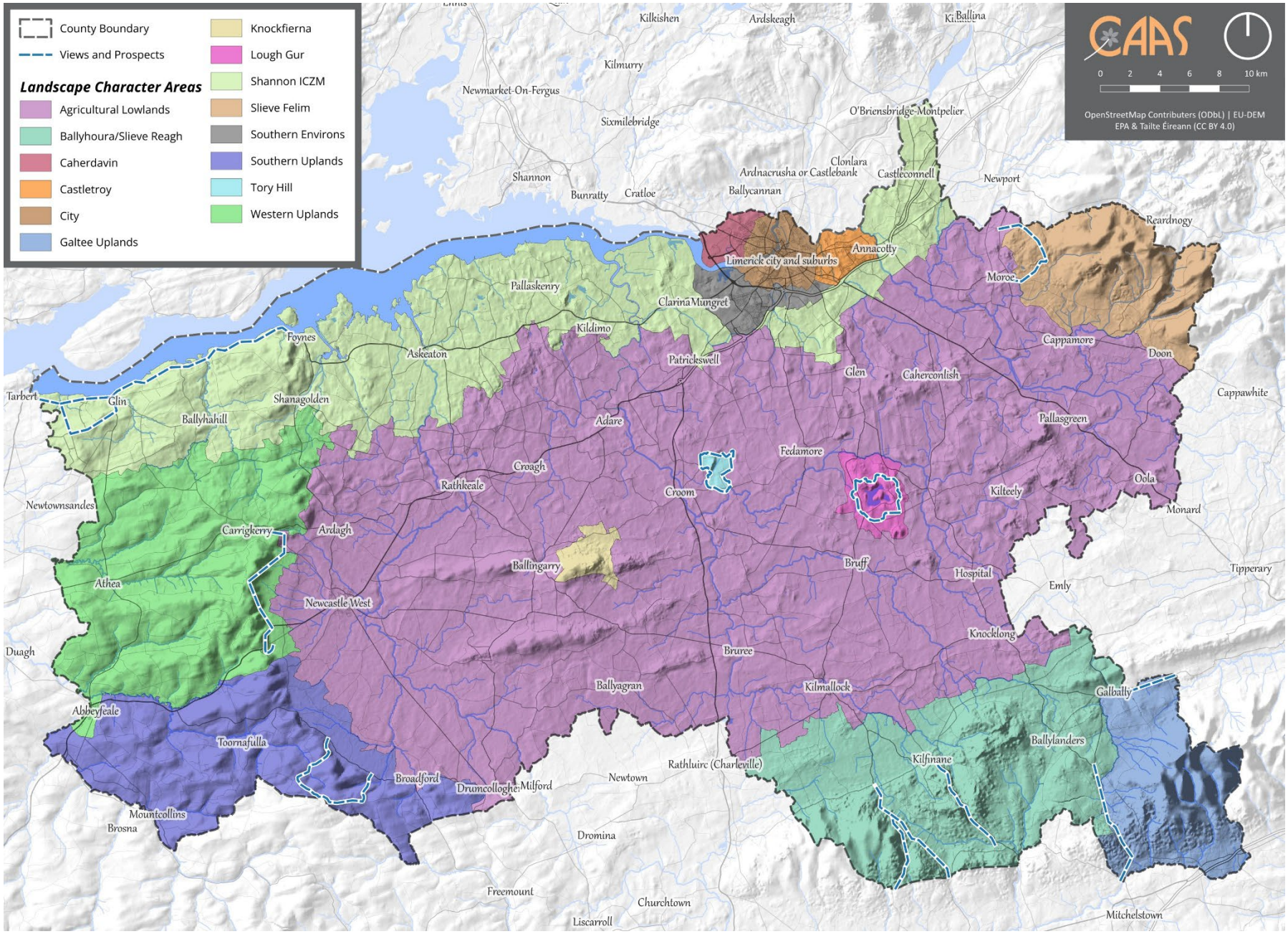


Figure 4.17 Landscape Designations

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 Variation 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 Variation as well as identifying targets which the Variation can help work towards.

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

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

The monitoring measures identified below as part of the Variation SEA are consistent with the measures that were identified by the Limerick Development Plan 2022-2028 SEA. This consistency across the hierarchy of land use plans will improve the efficiency and effectiveness of future monitoring.

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

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives	Indicators	Targets
Biodiversity, Flora and Fauna	**BFF**	No net contribution to biodiversity losses or deterioration	• Preserve, protect, maintain and where appropriate, restore the terrestrial, aquatic and soil biodiversity, of international, EU and nationally designated sites, protected species and habitats. • Ensure no adverse effects on the integrity of any European site, regarding its qualifying interests, associated conservation status, structure and function. • Maintain and where appropriate, enhance the biodiversity value of local designated and non-designated ecological and heritage areas, which function as stepping stones for migration, dispersal and genetic exchange of wild species. • Enhance biodiversity in line with the National Biodiversity Strategy and its targets. • To protect, maintain and conserve Limerick's natural capital.	• Condition of European sites	• Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions 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, the Limerick Biodiversity Plan 2025-2030 • Confirmation of compliance with Plan provisions relating to the protection of European Sites and sustaining resources
				• 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	• Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions 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, the Limerick Biodiversity Plan 2025-2030
				• SEAs and AAs as relevant for new Council policies, plans, programmes etc. under the Development Plan	• Screen for and/or undertake SEA and AA as relevant for new Council policies, plans, programmes etc. under the Development Plan
				• Status of water bodies	• Included under Water below
				• Compliance of planning permissions with Plan measures providing for the protection of Biodiversity and flora and fauna – see Chapter 6 "Environment, Heritage, Landscape and Green Infrastructure"	• 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 6 "Environment, Heritage, Landscape and Green Infrastructure"
Population and Human Health	**PHH**	Improve quality of life for all ages and abilities based on high-quality, serviced, well connected and sustainable residential, working, educational and recreational environments	• Provide high quality residential, community, working and recreational environments with access to sustainable transport options. • Promote economic growth to encourage retention of working age population and funding of sustainable development and environmental protection. • Ensure that existing population and planned growth is linked with the required infrastructure and the services. • Protect human health and well-being from environment-related pressures.	• Implementation of Plan measures relating to the promotion of economic growth as provided for by Chapter 5 "A Strong Economy"	• Progress in successfully implementing Plan measures relating to the promotion of economic growth as provided for by Chapter 5 "A Strong Economy"
				• Number of spatial concentrations of health problems arising from environmental factors resulting from development permitted under the Plan	• No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan
				• Proportion of people reporting regular cycling / walking to school and work above previous CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures • Progress in successfully implementing Plan measures relating to active travel
				• Number of spatial plans that include specific green infrastructure mapping	• Require all local level land use plans to include specific green infrastructure mapping

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives	Indicators	Targets
Soil (and Land)	**S**	Ensure the long-term sustainable management of land	• Protect soils against pollution, and prevent degradation of the soil resource • Promote the sustainable use of infill and brownfield sites over the use of greenfield • Safeguard areas of prime agricultural land and designated geological sites	• Proportion of population growth occurring on infill and brownfield lands compared to greenfield (also relevant to Material Assets)	• Contribute towards NPF target of maintaining built surface cover nationally to below the EU average of 4% • In accordance with the 'NPF Implementation: Housing Growth Requirements - Guidelines for Planning Authorities July 2025 a target of at least 40% of all new housing to be delivered within the existing built up areas of cities, towns and villages on infill and/or brownfield sites • To map brownfield and infill land parcels
				• Instances where contaminated material generated from brownfield and infill must be disposed of	• Dispose of contaminated material in compliance with EPA guidance and waste management requirements
				• Environmental assessments and AAs as relevant for applications for brownfield and infill development prior to planning permission	• Screen for and undertake environmental assessments and AA as relevant for applications for brownfield and infill development prior to planning permission
Water	**W**	Protection, improvement and sustainable management of the water resource	• Ensure that the status of water bodies is protected, maintained and improved in line with the requirements of the Water Framework Directive • Ensure water resources are sustainably managed to deliver proposed growth targets in the context of existing and projected water supply and wastewater capacity constraints ensuring the protection of receiving environments • Avoid inappropriate zoning and development in areas at risk of flooding and areas that are vulnerable to current and future erosion • Integrate appropriate flood risk management measures and sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals	• Status of water bodies as reported by the EPA Water Monitoring Programme for the WFD	• Subject to exemptions provided for by Article 4 of the Water Framework Directive, not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status' • Implementation of the objectives of the River Basin Management Plan
				• Number of incompatible developments permitted within flood risk areas	• Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk
Material Assets	**MA**	Sustainable and efficient use of natural resources	• Make best use of existing infrastructure, promote the sustainable development of new infrastructure and protect existing assets, to meet the needs of Limerick's population. • Promote the circular economy, reduce waste, and increase energy efficiencies. • Ensure there is adequate sewerage, water and drainage infrastructure in place to support new development • Reduce the energy demand from the transport sector and support moves to electrification of transport modes and active travel.	• Programmed delivery of Uisce Éireann infrastructure for all key growth towns in line with Uisce Éireann Investment Plan and prioritisation programme to ensure sustainable growth can be accommodated • Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Plan	• All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan • Where individual on-site wastewater treatment systems are proposed, for planning permission to be only granted when applications demonstrate that the outfall from the individual on-site wastewater treatment system will not – in- combination with other septic tanks – contribute towards any surface or ground water body not meeting the objective of good status under the Water Framework Directive • Facilitate, as appropriate, Uisce Éireann in developing water and wastewater infrastructure • See also targets relating to greenfield and brownfield development of land under Soil

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives	Indicators	Targets
				• Proportion of people reporting regular cycling / walking to school and work above previous CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures • Progress in successfully implementing Plan measures relating to active travel
Air	**A**	Support clean air policies that reduce the impact of air pollution on the environment and public health	• To avoid, prevent or reduce harmful effects on human health and the environment as a whole resulting from emissions to air from all sectors with particular reference to emissions from transport, residential heating, industry and agriculture • Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency • Promote continuing improvement in air quality • Reduction of emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter which are responsible for acidification, eutrophication and ground-level ozone pollution • Meet Air Quality Directive standards for the protection of human health — Air Quality Directive • Significantly decrease noise pollution and move closer to WHO recommended levels	• Proportion of journeys made by private fossil fuel-based car compared to previous levels • NO_2 (Nitrogen Dioxide), PM10 (particulate matter with diameter of 10 microns or less) and O_3 (Ozone) as part of Ambient Air Quality Monitoring	• Decrease in proportion of journeys made by car compared to previous levels • Improvement in Air Quality trends, particularly in relation to transport related emissions • Progress in successfully implementing Plan measures relating to sustainable mobility and travel
Climatic Factors[45]	**C**	Achieving transition to a competitive, low carbon, climate-resilient economy that is cognisant of environmental impacts	• Minimise contribution to Climate Change by adopting mitigation and adaptation measures. • Integrate sustainable design solutions into the Limerick's infrastructure (e.g. energy efficient buildings; green infrastructure). • Contribute towards the reduction of greenhouse gas emissions in line with national targets. • Encourage and promote development resilient to the effects of climate change. • Promote the use of renewable energy, energy efficient development and increased use of public transport and active travel.	• Implementation of Plan measures relating to climate reduction targets	• For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to climate reduction targets
				• A competitive, low-carbon, climate-resilient and environmentally sustainable economy	• Contribute towards transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050
				• Share of renewable energy in transport	• Contribute towards the National Energy and Climate Plan 2021-2030 sectoral target for transport (RES-T) of 14%, by 2030 (this may be increased following a provisional European agreement on 30 March 2023 for a binding overall RES target of at least 42.5% by 2030)
				• Greenhouse gas emissions	• Contribute towards the target of aggregate reduction in carbon dioxide (CO_2) emissions of at least 51% (compared to 1990 levels) by 2030 (helping to set Ireland on a path to reach net-zero emissions by 2050)
				• Energy consumption, the uptake of renewable options and solid fuels for residential heating	• To promote reduced energy consumption and support the uptake of renewable options and a move away from solid fuels for residential heating

[45] Please also refer to relevant legislation and requirements under Section 4.10, Section 8 and Appendix I. Targets under the national Climate Action Plan are reviewed and updated periodically.

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives	Indicators	Targets
				• Proportion of journeys made by private fossil fuel-based car compared to previous levels	• Decrease in the proportion of journeys made by residents of Limerick using private fossil fuel-based car compared to previous levels • Progress in successfully implementing Plan measures relating to sustainable mobility and travel
				• Proportion of people reporting regular cycling / walking to school and work above previous CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures • Progress in successfully implementing Plan measures relating to active travel
Cultural Heritage	**CH**	Safeguard cultural heritage features and their settings through responsible design and positioning of development	Protect places, features, buildings and landscapes of cultural, archaeological and / 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	• 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
				• 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 Protected Structures and Architectural Conservation Areas and their context from significant adverse effects arising from new development granted permission under the Plan
Landscape	**L**	Protect and enhance the landscape character	To implement the Development Plan's framework for identification, assessment, protection, management and planning of landscapes having regard to the European Landscape Convention.	• Number of developments permitted that result in avoidable adverse visual impacts on the landscape, especially with regard to landscape designations, resulting from development which is granted permission under the Plan	• No developments permitted which result in avoidable adverse visual impacts on the landscape, especially with regard to landscape designations, 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, or variation to these) are identified, described and evaluated for their likely significant effects on the environment. Alternatives for the Variation are identified under a number of types below and assessed in Section 7.

6.2 Limitations in Available Alternatives

The alternatives available for the Variation are significantly limited by the provisions of higher-level planning objectives, including those of Ministerial Guidelines, the Revised National Planning Framework, the Regional Spatial and Economic Strategy for the Southern Region and the existing Development Plan which set out various requirements for the content of the Variation. Notwithstanding these higher-level policy constraints and the limited scope of the Variation, alternatives to the land use zoning approach are identified and assessed.

6.3 Description of Alternatives Considered

Two alternatives (with associated components) for the approach to land use zoning for Variation No. 3 were identified:

Land Use Zoning Approach Alternative 1: "More Compact Development, More Transport Orientated, More Infrastructure-Led"

- Limerick facilitated in meeting the revised population targets, resulting in balanced, orderly development and implementation of the varied Core Strategy.
- This alternative involves provisions that are strongly guided by capacity/delivery with respect to existing and planned infrastructure and services.
- The physical infrastructure and services required to be in place to achieve the growth targets is largely already in place or planned.
- At least 40% of all new homes to be provided within the existing built-up footprint of Limerick City, both city centre and suburbs under the varied Plan.
- Development would occur in a well-planned and coordinated manner and would be more transport orientated, focused to a greater degree within the existing built-up footprint of Limerick City, both city centre and suburbs, including on infill sites where appropriate.

Land Use Zoning Approach Alternative 2: "Less Compact Development, Less Transport Orientated, Less Infrastructure-Led"

- Limerick facilitated in meeting the revised population targets, resulting in implementation of the varied Core Strategy.
- This alternative involves provisions that are not as strongly guided by capacity/delivery with respect to existing and planned infrastructure and services.
- Additional, more significant levels of infrastructure would be required to accommodate sporadic/outer fringe development, more than would be required for Alternative 1.
- A greater proportion of new residential development would to take place on peripheral, outer fringe lands (beyond the existing built-up footprint of the City and suburbs) over the lifetime of the Plan, with 40% less likely to be achieved under the varied Plan within the existing built-up footprint of Limerick City, both city centre and suburbs (in comparison with Alternative 1).
- Development would occur in a less well planned and coordinated manner and would be less transport orientated, focused to a lesser degree within the existing built-up footprint of Limerick City, both city centre and suburbs.

Section 7 Evaluation of Alternatives

7.1 Introduction

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

7.2 Methodology

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

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

The interactions identified are as follows:

- Alternatives that are likely to have a significant positive environmental effect on the environmental components associated with SEOs;
- Alternatives that have the potential to have a likely significant negative environmental effect on the environmental components associated with SEOs - however, a low level of residual negative effect is likely as effects would be relatively easily mitigated and/or avoided;
- Alternatives that are likely to have a significant negative environmental effect on the environmental components associated with SEOs - a high level of residual negative effect would be likely as effects would not be easily mitigated and/or avoided; and
- Alternatives that have no likely significant environmental effect on the environmental components associated with SEOs.

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

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

Table 7.1 Strategic Environmental Objectives[46]

Environmental Component	Guiding Principle	SEO Code	Strategic Environmental Objectives
Biodiversity, Flora and Fauna	No net contribution to biodiversity losses or deterioration	**BFF**	• Preserve, protect, maintain and where appropriate, restore the terrestrial, aquatic and soil biodiversity, of international, EU and nationally designated sites, protected species and habitats. • Ensure no adverse effects on the integrity of any European site, regarding its qualifying interests, associated conservation status, structure and function. • Maintain and where appropriate, enhance the biodiversity value of local designated and non-designated ecological and heritage areas, which function as stepping stones for migration, dispersal and genetic exchange of wild species. • Enhance biodiversity in line with the National Biodiversity Strategy and its targets. • To protect, maintain and conserve Limerick's natural capital.

[46] See also Section 5.

Environmental Component	Guiding Principle	SEO Code	Strategic Environmental Objectives
Population and Human Health	Improve quality of life for all ages and abilities based on high-quality, serviced, well connected and sustainable residential, working, educational and recreational environments	**PHH1**	• Provide high quality residential, community, working and recreational environments with access to sustainable transport options. • Promote economic growth to encourage retention of working age population and funding of sustainable development and environmental protection. • Ensure that existing population and planned growth is linked with the required infrastructure and the services. • Protect human health and well-being from environment-related pressures.
Soil (and Land)	Ensure the long-term sustainable management of land	**S**	• Protect soils against pollution, and prevent degradation of the soil resource • Promote the sustainable use of infill and brownfield sites over the use of greenfield • Safeguard areas of prime agricultural land and designated geological sites
Water	Protection, improvement and sustainable management of the water resource	**W**	• Ensure that the status of water bodies is protected, maintained and improved in line with the requirements of the Water Framework Directive • Ensure water resources are sustainably managed to deliver proposed growth targets in the context of existing and projected water supply and wastewater capacity constraints ensuring the protection of receiving environments • Avoid inappropriate zoning and development in areas at risk of flooding and areas that are vulnerable to current and future erosion • Integrate appropriate flood risk management measures and sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals
Material Assets	Sustainable and efficient use of natural resources	**MA**	• Make best use of existing infrastructure, promote the sustainable development of new infrastructure and protect existing assets, to meet the needs of the Limerick's population. • Promote the circular economy, reduce waste, and increase energy efficiencies. • Ensure there is adequate sewerage, water and drainage infrastructure in place to support new development • Reduce the energy demand from the transport sector and support moves to electrification of transport modes and active travel.
Air	Support clean air policies that reduce the impact of air pollution on the environment and public health	**A**	• To avoid, prevent or reduce harmful effects on human health and the environment as a whole resulting from emissions to air from all sectors with particular reference to emissions from transport, residential heating, industry and agriculture • Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency • Promote continuing improvement in air quality • Reduction of emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter which are responsible for acidification, eutrophication and ground-level ozone pollution • Meet Air Quality Directive standards for the protection of human health — Air Quality Directive • Significantly decrease noise pollution and move closer to WHO recommended levels
Climatic Factors	Achieving transition to a competitive, low carbon, climate-resilient economy that is cognisant of environmental impacts	**C**	• Minimise contribution to Climate Change by adopting mitigation and adaptation measures. • Integrate sustainable design solutions into the Limerick's infrastructure (e.g. energy efficient buildings; green infrastructure). • Contribute towards the reduction of greenhouse gas emissions in line with national targets. • Encourage and promote development resilient to the effects of climate change. • Promote the use of renewable energy, energy efficient development and increased use of public transport and active travel.
Cultural Heritage	Safeguard cultural heritage features and their settings through responsible design and positioning of development	**CH**	• Protect places, features, buildings and landscapes of cultural, archaeological and / or architectural heritage.

Environmental Component	Guiding Principle	SEO Code	Strategic Environmental Objectives
Landscape	Protect and enhance the landscape character	**L**	• To implement the Development Plan's framework for identification, assessment, protection, management and planning of landscapes having regard to the European Landscape Convention.

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

Description of Likely Significant Environmental Effects				
Criteria	Alternatives are **likely** to have a **significant positive environmental effect** on the environmental components associated with SEOs	Alternatives have the **potential** to have a **likely significant negative environmental effect** on the environmental components associated with SEOs - however, a **low level of residual negative effect** is likely as effects would be relatively easily mitigated and/or avoided	Alternatives are **likely** to have a **significant negative environmental effect** on the environmental components associated with SEOs - a **high level of residual negative effect** would be likely as effects would not be easily mitigated and/or avoided	Alternatives have **no likely significant environmental effect** on the environmental components associated with SEOs
Symbology used under Section 7.3 below	+	- M	-	0

7.3 Detailed Assessment of Alternatives

7.3.1 Effects Common to Alternatives

Each of the alternatives would be part of a wider Variation envisaging – in compliance with the robust policy framework in place at national, regional and local level – sustainable development and compact growth generally. As such, common environmental effects (as detailed on Table 7.3) would be present under Variations adopting each of the alternatives, albeit often to varying degrees.

Table 7.3 Effects common to Variations adopting each of the alternatives

Environmental Component	Significant Positive Environmental Effects, likely to occur	Potentially Significant Adverse Environmental Effects, if unmitigated
Biodiversity and Flora and Fauna	• Contribution towards protection of ecology (including designated sites, ecological connectivity and habitats) by facilitating development of lands (including those within and adjacent to Limerick city centre and suburbs) 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 Limerick City and beyond.	Arising from both construction and operation of development and associated infrastructure: • Loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna; • Habitat loss, fragmentation and deterioration, including patch size and edge effects; and • Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species such as birds (e.g. wetland birds, swifts) and bats.

Environmental Component	Significant Positive Environmental Effects, likely to occur	Potentially Significant Adverse Environmental Effects, if unmitigated
Population and Human Health	• 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 Limerick city centre and suburbs) 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 Limerick City and beyond. • Contribution towards the protection of human health by facilitating development of lands (including those within and adjacent to Limerick city centre and suburbs) 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 Limerick City and beyond.	• Potential adverse effects arising from flood events. • Potential interactions with human health if effects arise 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 Limerick city centre and suburbs) 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 Limerick City 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 and coastal erosion.
Water	• Contribution towards the protection of water by facilitating development of lands (including those within and adjacent to Limerick city centre and suburbs) 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 Limerick City 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.
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 Limerick city centre and suburbs) 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 Limerick City and beyond. • Contribution towards limits in increases in energy demand from the transport sector by facilitating sustainable compact growth.	• Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Failure to adequately treat surface water run-off that is discharged to water bodies (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Failure to comply with drinking water regulations and serve new development with adequate drinking water (water services infrastructure and capacity ensures the mitigation of potential conflicts). • Increases in waste levels. • Potential impacts upon public assets and infrastructure. • Interactions between agricultural waste and soil, water, biodiversity and human health – including as a result of emissions of ammonia from agricultural activities (e.g. manure handling, storage and spreading) and the production of secondary inorganic particulate matter.

Environmental Component	Significant Positive Environmental Effects, likely to occur	Potentially Significant Adverse Environmental Effects, if unmitigated
Air and Climatic Factors	• Contribution towards climate mitigation and adaptation and reduction of overall emissions to air by facilitating compact development of lands (including those within and adjacent to Limerick city centre and suburbs) 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 Limerick City and beyond.	• Potential conflict between development under the Plan as varied and aiming to reduce carbon emissions in line with local, national and European environmental objectives. • Potential conflicts between transport emissions, including those from cars, and air quality. • Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors. • Potential conflicts with climate adaptation measures including those relating to flood risk management.
Cultural Heritage	• Contributes towards protection of cultural heritage elsewhere by facilitating compact development.	• Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.
Landscape	• Contributes towards protection of wider landscape and landscape designations by facilitating compact development.	• Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.

7.3.2 Assessment of Land Use Zoning Approach Alternatives

Land Use Zoning Approach Alternative 1: "More Compact Development, More Transport Orientated, More Infrastructure-Led"

Under this Alternative, Limerick would be facilitated in meeting the revised population targets, resulting in balanced, orderly development and implementation of the varied Core Strategy.

The approach under this alternative would allow for capacity/delivery with respect to existing and planned infrastructure and services to be integrated into the Plan as varied to the highest degree.

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

The development of Limerick City would be more compact and sustainable under this scenario and would better support its longer-term viability. A higher number of residential units, in comparison with Alternative 2, would be expected to take place within the existing built-up footprint on brownfield, infill and under-utilised sites at appropriate densities, with a greater focus on use of consolidation and regeneration sites, with potential for wider regeneration benefits to central areas, including housing provision. Regeneration, reuse and redevelopment of more central and brownfield and infill lands and optimising the use of vacant, derelict, and underutilised sites and buildings would be more likely to be achieved. Giving a strong preference to lands that have both greater capacity to satisfy the principles of active travel and a more realistic opportunity of being developed over the lifetime of the Plan, would provide for the proper planning and sustainable development of Limerick City as envisaged by the wider planning framework to a greater degree.

There would be greater potential for transport orientated development, including proximate development patterns linked by active travel infrastructure and public transport. Associated benefits and improvements to the public realm and appearance of the built environment, including liveability and quality of life improvements, would be more likely.

This Alternative would make the greatest contribution towards the protection and management of the environment by facilitating development of lands (including those within the existing built-up footprint of Limerick City, both city centre and suburbs) 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 Limerick City and beyond. This Alternative would be considered the most effective out of both alternatives considered in the delivery of a sustainable, low carbon and climate resilient future for Limerick.

The approach under Alternative 1 would benefit the protection of various environmental components. Although potentially adverse effects associated with land use development would exist, they would be mitigated to a significant degree. Less residual environmental effects would result.

Under this alternative there would be:

- More optimum use of land and resources, with positive role for addressing climate change, such as potential for reduced carbon heavy travel patterns.
- Greater potential for modal shift to sustainable travel such as walking, cycling and public transport, with resultant benefits for climate resilience.
- Use of already serviced lands within the existing built-up footprint of Limerick City, both city centre and suburbs could lead to potential reduced costs for delivery of new supporting infrastructure.
- Creation of more liveable built environments, with greater accessibility to services and amenities for local communities.

Land Use Zoning Approach Alternative 2: "Less Compact Development, Less Transport Orientated, Less Infrastructure-Led"

Under this Alternative, Limerick would be facilitated in meeting the revised population targets, resulting in balanced, orderly development and implementation of the varied Core Strategy.

The approach under this alternative would not allow for capacity/delivery with respect to existing and planned infrastructure and services considerations to be integrated into the Plan as varied to the highest degree.

Additional significant infrastructure would be required to accommodate sporadic/outer fringe development, more than would be required for Alternative 1 'More Compact Development, More Transport Orientated, More Infrastructure-Led'.

The development of Limerick City would be less compact and less sustainable under this scenario and would not optimally support its longer-term viability. A lower number of residential units, in comparison with Alternative 1, would be expected to take place within the existing built-up footprint on brownfield, infill and under-utilised sites at appropriate densities. Under this alternative there would be potential for greater proportion of housing to be delivered outside of the built-up areas, including on urban fringe and outer areas, creating unsustainable travel patterns with a greater reliance on the private car. Giving less of a preference to lands that have both greater capacity to satisfy the principles of active travel and a more realistic opportunity of being developed over the lifetime of the Plan, would provide for the proper planning and sustainable development of Limerick City as envisaged by the wider planning framework to a lesser degree.

There would be greater potential for negative impacts on the vitality and viability of built-up areas, due to under use of infill sites. This alternative would be likely to result in increased outer fringe development, that would be more difficult to serve with active travel infrastructure and public transport.

This Alternative would make less of a contribution towards the protection and management of the environment by facilitating development of lands (including those within the existing built-up footprint of Limerick City, both city centre and suburbs) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and

services. Development of more sensitive, less well-serviced lands in Limerick City would be provided for. This Alternative would be considered the least effective out of both Alternatives considered in the delivery of a sustainable, low carbon and climate resilient future for Limerick City.

The approach under Alternative 2 would benefit the protection of various environmental components to a lesser degree. Although potentially adverse effects associated with land use development would exist, they would be mitigated to in many cases; however, more residual environmental effects would result.

Under this alternative there would be:

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

Alternatives are assessed against Strategic Environmental Objectives on Table 7.4. The significance ratings presented reflect the interaction of each alternative with the environmental baseline, infrastructure efficiency considerations and climate-related transport emissions, having regard to the Strategic Environmental Objectives and the potential for mitigation at lower tiers of decision-making.

The selected land use zoning approach for the Variation is Alternative 1. This compact development approach performed more favourably across multiple Strategic Environmental Objectives, including those relating to climate, human health, material assets and landscape. This approach would facilitate Limerick in meeting the revised population targets and would enable the rapid activation of available and housing delivery in the interests of providing housing for people.

Table 7.4 Assessment of Land Use Zoning Approach Alternatives against SEOs

Description of Likely Significant Environmental Effects[47]								
Alternative (Selected Alternative in **Bold**)	+			-M			-	0
	to a **Greater** degree	to a **Moderate** degree	to a **Lesser** degree	to a **Lesser** degree	to a **Moderate** degree	to a **Greater** degree		
1. "More Compact Development, More Transport Orientated, More Infrastructure-Led"	**BFF PHH S W MA A C CH L**			**BFF PHH S W MA A C CH L**				
2. "Less Compact Development, Less Transport Orientated, Less Infrastructure-Led"			**BFF PHH S W MA A C CH L**			**BFF PHH S W MA A C CH L**		

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

The selected alternative for the Variation that emerged from the planning/SEA process is indicated above.

This alternative has been integrated into the Variation as made having regard to both:

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

These findings informed the environmental evaluation of the Variation presented in Section 8.

[47] For an explanation of Strategic Environmental Objective codes (e.g. **BFF**, **PHH**, **S**, **W**) and assessment criteria (related to **+**, **-M**, **-** and **0** symbols), etc. refer to Section 7.2. For related SEA Framework indicators and targets refer to Section 5.

Section 8 Evaluation of the Variation

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 Variation.

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

The interactions identified are reflective of likely significant environmental effects:

- Variation provisions that are likely to have a significant positive environmental effect on the environmental components associated with SEOs;
- Amendment provisions that have the potential to have a likely significant negative environmental effect on the environmental components associated with SEOs - however, a low level of residual negative effect is likely as effects would be relatively easily mitigated and/or avoided;
- Variation provisions that are likely to have a significant negative environmental effect on the environmental components associated with SEOs - a high level of residual negative effect would be likely as effects would not be easily mitigated and/or avoided; and
- Variation provisions that have no likely significant environmental effect on the environmental components associated with SEOs.

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

The degree of significance of effects occurring cannot be fully determined at this level of decision making as the Plan as varied will be implemented through lower-tier project development, environmental and planning assessments and decision-making. However, a strategic assessment can be undertaken.

Accordingly, the assessment is strategic in nature and is complemented by lower-tier project-level environmental assessment and consenting processes, which will provide further environmental protection and mitigation as required.

Table 8.1 Strategic Environmental Objectives[48]

Environmental Component	Guiding Principle	SEO Code	Strategic Environmental Objectives
Biodiversity, Flora and Fauna	No net contribution to biodiversity losses or deterioration	**BFF**	• Preserve, protect, maintain and where appropriate, restore the terrestrial, aquatic and soil biodiversity, of international, EU and nationally designated sites, protected species and habitats. • Ensure no adverse effects on the integrity of any European site, regarding its qualifying interests, associated conservation status, structure and function. • Maintain and where appropriate, enhance the biodiversity value of local designated and non-designated ecological and heritage areas, which function as stepping stones for migration, dispersal and genetic exchange of wild species. • Enhance biodiversity in line with the National Biodiversity Strategy and its targets. • To protect, maintain and conserve Limerick's natural capital.
Population and Human Health	Improve quality of life for all ages and abilities based on high-quality, serviced, well connected and sustainable residential, working, educational and recreational environments	**PHH1**	• Provide high quality residential, community, working and recreational environments with access to sustainable transport options. • Promote economic growth to encourage retention of working age population and funding of sustainable development and environmental protection. • Ensure that existing population and planned growth is linked with the required infrastructure and the services. • Protect human health and well-being from environment-related pressures.
Soil (and Land)	Ensure the long-term sustainable management of land	**S**	• Protect soils against pollution, and prevent degradation of the soil resource • Promote the sustainable use of infill and brownfield sites over the use of greenfield • Safeguard areas of prime agricultural land and designated geological sites
Water	Protection, improvement and sustainable management of the water resource	**W**	• Ensure that the status of water bodies is protected, maintained and improved in line with the requirements of the Water Framework Directive • Ensure water resources are sustainably managed to deliver proposed growth targets in the context of existing and projected water supply and wastewater capacity constraints ensuring the protection of receiving environments • Avoid inappropriate zoning and development in areas at risk of flooding and areas that are vulnerable to current and future erosion • Integrate appropriate flood risk management measures and sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals
Material Assets	Sustainable and efficient use of natural resources	**MA**	• Make best use of existing infrastructure, promote the sustainable development of new infrastructure and protect existing assets, to meet the needs of Limerick's population. • Promote the circular economy, reduce waste, and increase energy efficiencies. • Ensure there is adequate sewerage, water and drainage infrastructure in place to support new development • Reduce the energy demand from the transport sector and support moves to electrification of transport modes and active travel.
Air	Support clean air policies that reduce the impact of air pollution on the environment and public health	**A**	• To avoid, prevent or reduce harmful effects on human health and the environment as a whole resulting from emissions to air from all sectors with particular reference to emissions from transport, residential heating, industry and agriculture • Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency • Promote continuing improvement in air quality • Reduction of emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter which are responsible for acidification, eutrophication and ground-level ozone pollution • Meet Air Quality Directive standards for the protection of human health — Air Quality Directive • Significantly decrease noise pollution and move closer to WHO recommended levels

[48] See also Section 5

Environmental Component	Guiding Principle	SEO Code	Strategic Environmental Objectives
Climatic Factors	Achieving transition to a competitive, low carbon, climate-resilient economy that is cognisant of environmental impacts	**C**	• Minimise contribution to Climate Change by adopting mitigation and adaptation measures. • Integrate sustainable design solutions into the Limerick's infrastructure (e.g. energy efficient buildings; green infrastructure). • Contribute towards the reduction of greenhouse gas emissions in line with national targets. • Encourage and promote development resilient to the effects of climate change. • Promote the use of renewable energy, energy efficient development and increased use of public transport and active travel.
Cultural Heritage	Safeguard cultural heritage features and their settings through responsible design and positioning of development	**CH**	• Protect places, features, buildings and landscapes of cultural, archaeological and / or architectural heritage.
Landscape	Protect and enhance the landscape character	**L**	• To implement the Development Plan's framework for identification, assessment, protection, management and planning of landscapes having regard to the European Landscape Convention.

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

Description of Likely Significant Environmental Effects				
Criteria	Variation provisions are **likely** to have a **significant positive environmental effect** on the environmental components associated with SEOs	Variation provisions have the **potential** to have a **likely significant negative environmental effect** on the environmental components associated with SEOs - however, a **low level of residual negative effect** is likely as effects would be relatively easily mitigated and/or avoided	Variation provisions are **likely** to have a **significant negative environmental effect** on the environmental components associated with SEOs - a **high level of residual negative effect** would be likely as effects would not be easily mitigated and/or avoided	Variation provisions have **no likely significant environmental effect** on the environmental components associated with SEOs
Symbology used under Section 8.7 below	+	- M	-	0

8.2 Cumulative Effects[49]

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, variation to a plan, 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, or variation to a plan, occur in combination with those of other plans, programmes, developments, etc.

[49] The EPA's guidance note 'Good Practice Guidance note on cumulative effects assessment in SEA' has been considered in the assessment.

Effects that may arise as a result of implementing the Variation have been mitigated (including by both mitigation already integrated into the existing Plan and mitigation integrated into the Variation) to the extent that the only residual adverse effects likely to occur as a result of implementation of the Variation are not significant, as identified under Table 8.3.

Other policies, plans and programmes that have been considered by the assessment of effects include those which are detailed under Section 2.3 (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 Variation, including those relating to land use planning. These plans and programmes are subject to their own environmental assessment requirements as relevant. Examples include:

- Land use policy, plans and programmes (e.g. the Limerick Development Plan to which the Variation relates, the National Planning Framework, the Southern Regional Spatial and Economic Strategy, and adjoining County Development Plans, their emerging Variations[50] and Local Area Plans);
- Limerick Local Economic and Community Plan 2023-2028;
- Energy policy, plans and programmes (e.g. Shaping Our Electricity Future 1.1 and associated Implementation Programme and the National Energy and Climate Plan 2021-2030);
- Climate related policy, plans and programmes (e.g. Climate Action and Low Carbon Development Act 2015, as amended, Climate Action Plan 2025, the National Adaptation Framework 2024 and the Limerick Climate Action Plan 2024-2029);
- Water services, waste management and transport infrastructure plans (e.g. Uisce Éireann's Water Services Strategic Plan and associated Capital Investment Plan, and the National Waste Management Plan for a Circular Economy 2024); 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, including walking, cycling and public transport;
    - Drainage, flood risk management and resilience;
    - Sectors including energy and buildings; and
    - Sustainable design, energy efficiency and green infrastructure.
- Contributions towards travel related greenhouse gas and other emissions to air (in combination with plans and programmes from all sectors, including transport and land use planning) as a result of facilitating development which must be accompanied by road capacity;
- Facilitation of new development that is accompanied by appropriate levels of water services thereby contributing towards environmental protection;
- Need for and use of water and waste water treatment capacity arising from new developments and associated potential adverse effects;
- Potential cumulative effects upon surface and ground water status as a result of uses, within the Development Plan area and wider catchment, including 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 City boundary;
- Potential cumulative effects on flood risk by, for example, development of greenfield lands or obstruction of flood paths; and
- In combination with plans and programmes from all sectors potential adverse effects on all environmental components arising from all development in greenfield and brownfield areas (e.g. infrastructural, residential, economic, agricultural etc.). The type of these effects is consistent with those described on Table 8.3. These plans and programmes are required to

[50] for example, Variation No. 1 to the Clare County Development Plan, that includes, among other things, additional zoning for residential development within the settlements of Ballycannon North, Parteen, Athlunkard and Ardnacrusha.

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 Limerick.

A variety of the issues covered by the Variation provisions are regional, county and city issues which are considered: at Regional Assembly level, in the Southern RSES and by planning authorities across the Region; and at county and city level, including through the Limerick Development Plan, to which the Variation relates. The solutions to these issues are often regional solutions which are subject to their own consenting procedures. Works arising outside of zoned areas including works arising as a result of the cumulative provision of development in the wider county and region, would potentially conflict with a number of environmental components, across the wider county and region and beyond, including: ecology, soil function, the status of water bodies and the landscape. Some of these conflicts would be mitigated by measures which will be integrated into the Variation or have already been integrated into the Development Plan, while some will be mitigated by measures arising out of separate consent procedures.

8.3 Overall Evaluation (including transboundary)

The Limerick Development Plan 2022-2028 has been subject to full SEA, which identified various environmental effects arising from implementation of the Plan, and facilitated the integration of measures into the Development Plan to ensure the appropriate protection and management of the environment with which lower tier plans/projects must comply. Variation No. 3 would contribute towards the proper planning and sustainable development of Limerick and the consequential environmental effects that have been identified by the SEA for the Development Plan. Limerick City and County Council has integrated various recommendations arising from environmental assessment processes into the existing Development Plan and Variation (see Section 9). Taking into account the measures that have been integrated into both the existing Limerick Development Plan and the Variation that provide for and contribute towards environmental protection, environmental management and sustainable development, any potential effects arising from Variation No. 3, would either: be present already (beneficial) and would be further contributed towards; and/or would be mitigated so as not to be significant (adverse).

Table 8.3 provides a detailed overall evaluation of the environmental effects arising from the Variation. The effects encompass all in-combination/cumulative effects arising from implementation of the Variation and associated documents. The Variation would contribute towards the proper planning and sustainable development of Limerick and the effects are consistent with those identified by the SEA for the Limerick Development Plan 2022-2028.

The potentially significant adverse environmental effects (if unmitigated) arising from implementation of the Variation are detailed as are residual effects, taking into account mitigation integrated into both the Variation and the Limerick Development Plan – see Section 9. Taking account of embedded mitigation within the existing Plan, mitigation within the Variation and the statutory environmental assessment requirements applying at project level, no significant adverse residual environmental effects are predicted.

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

Table 8.3 Overall Evaluation (including transboundary) – Effects arising from the Variation

Environmental Component	Environmental Effects, in combination with the wider planning framework Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP, the Southern RSES, the Limerick Development Plan and adjacent Development Plans and lower-tier land use plans.			SEO Codes
	Significant Positive Effect, likely to occur	**Potentially Significant Adverse Environmental Effects, if unmitigated**	**Likely Residual Adverse Non-Significant Effects**	
Biodiversity and Flora and Fauna	• Contribution towards protection of ecology (including designated sites, ecological connectivity, habitats) by facilitating development of lands (including those within and adjacent to Limerick city centre and suburbs, and Limerick's other settlements), through both land use zoning and adherence to national housing policy guidelines, 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 Limerick's settlements 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.	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**
Population and Human Health	• 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 Limerick city centre and suburbs, and Limerick's other settlements), through both land use zoning and adherence to national housing policy guidelines, 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 Limerick's settlements and beyond. • Contribution towards the protection of human health by facilitating development of lands (including those within and adjacent to Limerick city centre and suburbs, and Limerick's other settlements), through both land use zoning and adherence to national housing policy guidelines, 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 Limerick's settlements and beyond. • Contributes towards protection of human health as a result of contributing towards the protection of natural capital including environmental vectors, such as air and water.	• Potential adverse effects arising from flood events. • Potential interactions with human health if effects arise from environmental vectors.	• Potential interactions with residual effects on environmental vectors – please refer to residual adverse effects under "Soil", "Water" and "Air and Climatic Factors" below.	**PHH**

Environmental Component	Environmental Effects, in combination with the wider planning framework Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP, the Southern RSES, the Limerick Development Plan and adjacent Development Plans and lower-tier land use plans.			SEO Codes
	Significant Positive Effect, likely to occur	**Potentially Significant Adverse Environmental Effects, if unmitigated**	**Likely Residual Adverse Non-Significant Effects**	
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 Limerick city centre and suburbs, and Limerick's other settlements), through both land use zoning and adherence to national housing policy guidelines, 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 Limerick's settlements and beyond. • Contribution towards the protection of the environment from contamination by requiring the highest standards of remediation and, where appropriate, consultations with the EPA and other relevant bodies in order to resolve any instances of environmental pollution created by contaminated land.	• 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 and coastal erosion.	• Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces. • Riverbank and coastal erosion will continue to occur naturally over time and is likely to be enhanced by climate change.	**S**
Water	• Contribution towards the protection of water by facilitating development of lands (including those within and adjacent to Limerick city centre and suburbs, and Limerick's other settlements), through both land use zoning and adherence to national housing policy guidelines, 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 Limerick's settlements 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.	• 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.	• Any increased loadings as a result of development to comply with the River Basin Management Plan. • Flood related risks remain due to uncertainty with regard to extreme weather events – however such risks will be mitigated by measures that have been integrated into the Variation.	**W**
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 Limerick city centre and suburbs, and Limerick's other settlements), through both land use zoning and adherence to national housing policy guidelines, 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 Limerick's settlements and beyond. • Contribution towards compliance with national and regional water services and waste management policies. • Contribution towards increase in renewable energy use by facilitating renewable energy and electricity transmission infrastructure developments. • Contribution towards limits in increases in energy demand from the transport sector by facilitating sustainable compact growth. • Contribution towards reductions in average energy consumption per capita including promoting sustainable compact growth, sustainable mobility, sustainable design and energy efficiency.	• 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.	• Exceedance of capacity in critical infrastructure risks remain, including due to uncertainty with regard to climate – however, such risks will be mitigated by: measures, including those requiring the timely provision of critical infrastructure, and compliance with the Water Framework Directive and associated River Basin Management Plan. • Residual wastes to be disposed of in line with higher-level waste management policies. • Any impacts upon public assets and infrastructure to comply with statutory planning/consent-granting framework.	**MA**

Environmental Component	Environmental Effects, in combination with the wider planning framework Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP, the Southern RSES, the Limerick Development Plan and adjacent Development Plans and lower-tier land use plans.			SEO Codes
	Significant Positive Effect, likely to occur	**Potentially Significant Adverse Environmental Effects, if unmitigated**	**Likely Residual Adverse Non-Significant Effects**	
Air and Climatic Factors	• Contribution towards climate mitigation and adaptation by facilitating compact development of lands (including those within and adjacent to Limerick city centre and suburbs, and Limerick's other settlements), through both land use zoning and adherence to national housing policy guidelines, 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 Limerick's settlements 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: o Sustainable compact growth; o Sustainable mobility, including walking, cycling and public transport; o Drainage, flood risk management and resilience; o Sectors including energy and buildings; and o Sustainable design, energy efficiency and green infrastructure.	• Potential conflict between development under the Plan as varied 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.	• An extent of travel related greenhouse gas and other emissions to air. This has been mitigated by provisions that have been integrated into the Variation, including those relating to sustainable compact growth and sustainable mobility. • Interactions between noise emissions and sensitive receptors. Various provisions have been integrated into the Variation to ensure that noise levels at sensitive receptors will be minimised.	**AC**
Cultural Heritage	• Contributes towards protection of cultural heritage elsewhere by facilitating compact development. • Contributes towards protection of cultural heritage, by facilitating brownfield development and regeneration.	• Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.	• Potential effects on known architectural and archaeological heritage and unknown archaeology however, these will occur in compliance with legislation.	**CH**
Landscape	• Contributes towards protection of wider landscape and landscape designations by facilitating compact development.	• 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 Development Plan's landscape protection measures.	**L**

8.4 Appropriate Assessment

Appropriate Assessment (AA) Screening has been undertaken alongside the making of the Variation. The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC). The Screening for AA for the Variation has concluded that the any likelihood for significant effect to any European site as a result of the Variation can be ruled out. The preparation of the Variation, SEA and Screening for AA has taken place concurrently and the findings of the Screening for AA have informed the SEA.

The findings of the Appropriate Assessment underpin the environmental evaluation presented in this Section.

8.5 Strategic Flood Risk Assessment

A Strategic Flood Risk Assessment (SFRA) has been undertaken as part of the preparation of the Variation. Requirements in relation to SFRA are provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (Department of Environment and Office of Public Works, 2009) and associated Department of the Environment, Community and Local Government Circular PL2/2014. The SFRA has informed both the land use zoning and the written provisions of the Variation. The findings of the Strategic Flood Risk Assessment have been fully integrated into the Variation and underpin the environmental evaluation presented in this Section.

In line with the 2009 Ministerial Guidelines, the sequential approach followed by the SFRA undertaken for the Variation uses mapped Flood Zones alongside considerations of the vulnerability of different types of land uses to give priority to development in zones of low flood probability. There was no need to consider highly vulnerable or less vulnerable development in Flood Zones A or B through the Justification Test outlined in the Guidelines.

8.6 Interrelationship between Environmental Components

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

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

Table 8.4 Presence of Interrelationships between Environmental Components

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

8.7 Assessment Against SEA Framework

For an explanation of SEO codes e.g. **BFF**, **PHH**, **S**, **W**, etc. refer to Table 8.1 on page 79.

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

The Variation is situated in a hierarchy of documents setting out public policy for, among other things, land use planning, infrastructure, sustainable development, tourism, environmental protection and environmental management, such as the Limerick Development Plan to which the Variation relates, the National Planning Framework, the National Development Plan, the National Climate Action Plan 2025, the National Adaptation Framework 2024, the Regional Spatial and Economic Strategy for the Southern Region and associated Limerick Metropolitan Area Strategic Plan, the Limerick Metropolitan Area Transportation Strategy, the Limerick Climate Action Plan 2024-2029 and the Limerick Local Economic and Community Plan 2023-2028 (for additional detail please refer to Section 2.3 *"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 Development Plan to which the Variation relates. The Development Plan to be varied 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 Development Plan, including the Variation, when made, 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.

Description of Likely Significant Environmental Effects[51]				
The purpose of Variation No. 3 is to accelerate housing delivery and respond to recent changes in National planning policy, namely the publication of the National Planning Framework (NPF) First Revision and the publication of the following Section 28 Ministerial Guidelines: • NPF Implementation: Housing Growth Requirements, Guidelines for Planning Authorities (2025); • Planning Design Standards for Apartments, Guidelines for Planning Authorities (2025); and • Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024). In addressing the housing growth requirements and other changes to National planning policy, the Variation provides various changes to the Volume 1, Written Statement and appendices, Volume 2a, Level 1 Limerick City and Suburbs (in Limerick) Mungret and Annacotty, Maps and Settlement Capacity Audit, Volume 6, Housing Strategy and Housing Need Demand Assessment, and the Building Height Strategy for Limerick City of the Limerick Development Plan 2022-2028 to address specific immediate updates that are needed to implement national policy. Variation No. 3 provides changes as follows: ➢ Volume 1, written statement and appendices, including changes to Chapter 1 Introduction, Vision and Strategic Overview, Chapter 2 Core Strategy, Chapter 3 Spatial Strategy, Chapter 4 Housing, Chapter 5 A Strong Economy, Chapter 6 Environment, Heritage, Landscape and Green Infrastructure, Chapter 7 Sustainable Mobility and Transport, Chapter 8 Infrastructure, Chapter 9 Climate Action, Flood Risk and Transition to Low Carbon Economy, Chapter 10 Sustainable Communities and Social Infrastructure, Chapter 11 Development Management Standard, Chapter 12 Land Use Zoning Strategy, Chapter 13 Implementation and Monitoring and Appendix 1: Section 28 Guidelines Compliance.	**+** **BFF PHH S W A C MA CH L**	**-M** **BFF PHH S W A C MA CH L**	**-**	**0**

[51] For an explanation of Strategic Environmental Objective codes (e.g. **BFF**, **PHH**, **S**, **W**) and assessment criteria (related to **+**, **-M**, **-** and **0** symbols), etc. refer to Section 8.1. For related SEA Framework indicators and targets refer to Section 5.

- Volume 2a Maps and Settlement Capacity Audit, including:
  - Amendments to land use zoning for a number of identified lands to facilitate residential uses and for strategic planned projects within the boundary of Limerick City and Suburbs including Mungret and Annacotty.
  - Amendments to land use zoning to reflect developments that have occurred since the adoption of the Plan and to capture the current land use context within the boundary of Limerick City and Suburbs, including Mungret and Annacotty.
  - Amendments to the Settlement Capacity Audit maps and tables for Limerick City and Suburbs reflective of zoning changes and the Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024).

- Volume 6, Supporting Strategies:
  - Updated Housing Strategy and Housing Need Demand Assessment, to inform policy for the remaining period of the Limerick Development Plan to 2028 and beyond.
  - Amendments to Policy in the Building Height Strategy and subsequent changes to Development Plan objectives in so far as it relates to building height.

For additional detail, refer to Variation No. 3 as made.

The assessment of Variation No. 3 amendments 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 8.6 of this report; and
- Assessments of the selected alternative for the Variation provided at Section 7 of this report.

The Limerick Development Plan 2022-2028 has been subject to full SEA, which identified various environmental effects arising from implementation of the Plan, and facilitated the integration of measures into the Development Plan to ensure the appropriate protection and management of the environment with which lower tier plans/projects must comply. Variation No. 3 would contribute towards the proper planning and sustainable development of Limerick and the consequential environmental effects that have been identified by the SEA. Limerick City and County Council has integrated various recommendations arising from environmental assessment processes into the existing Development Plan and Variation (see Section 9). Taking into account the measures that have been integrated into both the existing Limerick Development Plan and the Variation that provide for and contribute towards environmental protection, environmental management and sustainable development, any potential effects arising from Variation No. 3, would either: be present already (beneficial) and would be further contributed towards; and/or would be mitigated so as not to be significant (adverse).

Under the Variation, Limerick would be facilitated in meeting the revised population targets, resulting in balanced, orderly development and implementation of the varied Core Strategy. This approach would facilitate Limerick in meeting the revised population targets and would enable the rapid activation of available and housing delivery in the interests of providing housing for people.

The approach taken for land use zoning changes provided by the Variation (refer to Sections 6 and 7 of this report) and the integration of adherence to the aforementioned national guidelines for planning authorities, would support and facilitate economically viable compact and sequential growth compact growth, increased densities in central/accessible areas, and avoidance of unnecessary sprawl and associated adverse environmental effects.

Implementing Plan as varied will help to direct incompatible development away from the most sensitive areas in Limerick, and focus on directing compact, sustainable development within and adjacent to the existing built-up footprint of Limerick city centre and suburbs, and Limerick's other settlements. Development of these generally more robust, well-serviced and well-connected areas will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation. Compact development can be accompanied by placemaking initiatives to enable Limerick to become a more desirable place to live, work and visit. Compatible sustainable development in sensitive areas is also provided for, subject to various requirements relating to environmental protection and management being met.

The Plan as varied would contribute towards the Statutory consent granting and decision-making framework for land use developments and activities and sustainable development, in combination with other Development 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 land use zoning and objectives provided for by the Variation have taken into account environmental considerations, including those relating to ecology, cultural heritage, landscape/topography, infrastructural requirements and water. Zoning has been applied in a way that considers sustainable and compact growth, taking into account the various requirements set out in the higher-level Revised NPF, Southern RSES and existing Limerick Development Plan. Flood risk management and drainage provisions are already in force through the Development Plan. In addition, land use zoning contained within the Variation has been informed by an iterative SFRA process, including both:

the delineation of flood risk zones; and future climate scenario risk areas (mid-range as well as high end). The detailed Variation preparation process undertaken by the Planning Department combined with specialist input from the SFRA process facilitated zoning that helps to avoid inappropriate development being permitted in areas of elevated flood risk.

All undeveloped sites where land use zoning is changed under the Variation are situated within Flood Zone C. This is the Flood Zone with the lowest flood risk. The uses permissible / open for consideration under the Land Use Zoning Objectives being provided for these sites are considered to be appropriate to the relevant Flood Zone. However, a smaller number of previously developed Variation No. 3 sites include lands that overlap with Flood Zones A or B. The changes in zoning involved at these sites reflect the current use(s).

Some areas beyond Flood Zones A and B are identified as being at risk under OPW Mid-Range and High-End Future Climate Scenario Risk Area Mapping. Most sites where land use zoning is changed under the Variation are situated outside of these areas. However, a smaller number of previously developed Variation No. 3 sites include lands that overlap with Future Climate Scenario Risk Areas. The changes in zoning involved at these sites reflect the current use(s).

All projects under the Development Plan when varied will continue to need to demonstrate compliance with the provisions of the existing Development Plan relating to flood risk management and drainage (refer to Section 9 of this report).

The following text has been integrated into the Variation in order to deal with new or more intensive permissible uses on Variation No. 3 lands that overlap with Flood Zones A or B, or with Future Climate Scenario Risk Areas: "New or more intensive permissible uses not covered by part (g) below on Variation No. 3 lands including Sites Z10 and Z11 that overlap with Flood Zones A or B or with Future Climate Scenario Flood Risk Areas (as identified in Appendix I of the accompanying SFRA Addendum) shall be limited to water compatible uses. This limitation shall take primacy over any other related land use zoning provision including the City Centre zoning applicable to Sites Z10 and Z11. Proposals for developments within these areas shall be accompanied by a Site-Specific Flood Risk Assessment."

The following text has been integrated into the Variation in order to deal with extensions of existing uses or minor development on Variation No. 3 lands that overlap with Flood Zones A or B, or with Future Climate Scenario Risk Areas: "Extensions of existing uses or minor development on Variation No. 3 lands including Sites Z10 and Z11 that overlap with Flood Zones A or B or with Future Climate Scenario Flood Risk Areas (as identified in Appendix I of the accompanying SFRA Addendum) shall comply with requirements of the Planning System and Flood Risk Assessment Guidelines, and associated circular, including providing detailed design specifications as may be required to facilitate the impact of development. Extensions of existing uses or minor development within flood risk areas shall not: obstruct important flow paths; introduce a number of people into flood risk areas; entail the storage of hazardous substances; have adverse impacts or impede access to a watercourse, floodplain or flood protection and management facilities; or increase the risk of flooding elsewhere."

Land Use Zoning takes account of the tiered approach required by the National Planning Framework and will contribute towards a co-ordination of zonings with existing and planned infrastructure and services.

The SEA process that has been undertaken alongside the preparation of the existing Development Plan has informed the Plan through an iterative process. Similarly, mitigation measures have been integrated into the Variation. Some of these measures are reproduced under Section 9 "Mitigation Measures" of this report. By integrating provisions for environmental protection and management into the Variation, Limerick City and County Council is helping to ensure that:

- The potential significant adverse effects of implementing the Variation, in combination with implementation of other provisions from the Development Plan and other plans, programmes, etc., are avoided, reduced or offset; and
- The beneficial environmental effects of implementing the Variation, in combination with implementation of other provisions from the Development 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 Variation. 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 related recommendations into the existing Development Plan and the Variation, the Council has ensured that both the beneficial environmental effects of implementing the Plan to be varied have been and will be maximised and that potential adverse effects have been and will be avoided, reduced or offset.

Mitigation was achieved through:

- Strategic work undertaken by the Council to ensure evidence-based planning;
- Considering alternatives for the Variation;
- The integration of individual provisions into the text of the existing, already in force, Development Plan; and
- The integration of environmental considerations into the zoning provisions and text of the Variation.

The mitigation measures identified through the SEA, AA and SFRA processes have been incorporated into the text and objectives of the Variation and therefore form part of the statutory planning framework.

9.2 Strategic work undertaken by the Council to ensure evidence-based planning

In preparing the Variation, information relating to various sectors, from different Departments within the Council and from different bodies and organisations, was gathered and analysed, contributing towards the development of evidence-led provisions. This work included: preparing this SEA Environmental Report; preparing a Screening for Appropriate Assessment; preparing an Addendum to the existing Plan's Strategic Flood Risk Assessment; considering information on capacity/delivery with respect to existing and planned infrastructure; and updating the Building Heights Strategy, the Housing Need Demand Assessment and Housing Strategy.

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

9.3 Consideration of Alternatives

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

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

9.4 Integration of individual provisions into the text of the Development Plan

Variation individual provisions relating to environmental protection and management have been integrated into the existing, already in force, Limerick Development Plan.

Table 9.1 links key mitigation measure(s) to the likely significant effects of implementing the Variation, if unmitigated. The effects are consistent with those identified by the SEA for the Limerick Development Plan 2022-2028. 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.

In addition, all lower-tier plans and projects arising from the varied Development Plan will be required to comply with relevant environmental legislation and assessment requirements, ensuring that any potential adverse effects are avoided, reduced or mitigated as appropriate.

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.

9.5 Integration of environmental considerations into the zoning provisions and text of the Variation

The land use zoning and objectives provided for by the Variation have taken into account environmental considerations, including those relating to ecology, cultural heritage, landscape/topography, infrastructural requirements and water. Zoning has been applied in a way that considers sustainable and compact growth, taking into account the various requirements set out in the higher-level Revised National Planning Framework, Southern RSES and existing Limerick Development Plan. Flood risk management and drainage provisions are already in force through the Development Plan. In addition, land use zoning contained within the Variation has been informed by an iterative SFRA process, including both: the delineation of flood risk zones; and future climate scenario risk areas (mid-range as well as high end). The detailed Variation preparation process undertaken by the Planning Department combined with specialist input from the SFRA process facilitated zoning that helps to avoid inappropriate development being permitted in areas of elevated flood risk.

All undeveloped sites where land use zoning is changed under the Variation are situated within Flood Zone C. This is the Flood Zone with the lowest flood risk. The uses permissible / open for consideration under the Land Use Zoning Objectives being provided for these sites are considered to be appropriate to the relevant Flood Zone. However, a smaller number of previously developed Variation No. 3 sites include lands that overlap with Flood Zones A or B. The changes in zoning involved at these sites reflect the current use(s).

Some areas beyond Flood Zones A and B are identified as being at risk under OPW Mid-Range and High-End Future Climate Scenario Risk Area Mapping. Most sites where land use zoning is changed under the Variation are situated outside of these areas. However, a smaller number of previously developed Variation No. 3 sites include lands that overlap with Future Climate Scenario Risk Areas. The changes in zoning involved at these sites reflect the current use(s).

All projects under the Development Plan when varied will continue to need to demonstrate compliance with the provisions of the existing Development Plan relating to flood risk management and drainage (refer to Section 9 of this report).

The following text has been integrated into the Variation in order to deal with new or more intensive permissible uses on Variation No. 3 lands that overlap with Flood Zones A or B, or with Future Climate Scenario Risk Areas: "New or more intensive permissible uses not covered by part (g) below on Variation No. 3 lands including Sites Z10 and Z11 that overlap with Flood Zones A or B or with Future Climate Scenario Flood Risk Areas (as identified in Appendix I of the accompanying SFRA Addendum) shall be

limited to water compatible uses. This limitation shall take primacy over any other related land use zoning provision including the City Centre zoning applicable to Sites Z10 and Z11. Proposals for developments within these areas shall be accompanied by a Site-Specific Flood Risk Assessment."

The following text has been integrated into the Variation in order to deal with extensions of existing uses or minor development on Variation No. 3 lands that overlap with Flood Zones A or B, or with Future Climate Scenario Risk Areas: "Extensions of existing uses or minor development on Variation No. 3 lands including Sites Z10 and Z11 that overlap with Flood Zones A or B or with Future Climate Scenario Flood Risk Areas (as identified in Appendix I of the accompanying SFRA Addendum) shall comply with requirements of the Planning System and Flood Risk Assessment Guidelines, and associated circular, including providing detailed design specifications as may be required to facilitate the impact of development. Extensions of existing uses or minor development within flood risk areas shall not: obstruct important flow paths; introduce a number of people into flood risk areas; entail the storage of hazardous substances; have adverse impacts or impede access to a watercourse, floodplain or flood protection and management facilities; or increase the risk of flooding elsewhere."

Land Use Zoning takes account of the tiered approach required by the National Planning Framework and will contribute towards a co-ordination of zonings with existing and planned infrastructure and services.

In addition to the individual provisions integrated into the text of the existing Development Plan, provisions have also been integrated into the text of the Variation through the Variation-preparation and SEA, SFRA and AA processes. These measures are identified alongside the existing Development Plan measures on Table 9.1.

Table 9.1 Integration of Environmental Considerations into the Variation and existing Plan[52]

Topic	Potentially Significant Adverse Effect, if Unmitigated	Mitigating measures including:
Various – see below	Various – see below	**Variation No. 3 measures** Integration throughout of adherence to national housing policy guidelines: • NPF Implementation: Housing Growth Requirements, Guidelines for Planning Authorities (2025); • Planning Design Standards for Apartments, Guidelines for Planning Authorities (2025); and • Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024). Various updates to Development Plan Standards
Biodiversity and flora and fauna	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.	**Limerick Development Plan 2022-2028, as varied** Also refer to measures under other environmental components including Soil, Water and Air and Climatic Factors and Landscape. Policy EH P1 Protection of Natural Heritage and Biodiversity It is a policy of the Council to: a) Protect and conserve Limerick's natural heritage and biodiversity, in particular, areas designated as part of the European Sites Natura 2000 network, such as Special Protection Areas (SPAs) and Special Areas of Conservations (SACs), in accordance with relevant EU Directives and national legislation and guidelines. b) Maintain the conservation value of all Natural Heritage Areas and proposed Natural Heritage Areas (pNHAs) for the benefit of existing and future generations. Policy EH P2 Sustainable Management and Conservation It is a policy of the Council to ensure the sustainable management and conservation of areas of natural environmental and geological value within Limerick and to protect, enhance, create and connect, where ecologically suitable, natural heritage, green spaces and high-quality amenity areas for the benefit of biodiversity. Policy EH P3 Climate Action and the Natural Environment It is a policy of the Council to take into account the contents of the National Biodiversity Action Plan and the Biodiversity Climate Adaptation Plan and any forthcoming guidance or legislation on climate action, whether adaptation or mitigation that will emerge during the course of the Plan. Policy EH P4 Compliance with Limerick's Heritage Plan It is a policy of the Council to place ecological and environmental issues at the centre of planning policies and decisions and in doing so, will adhere to the objectives set out in Limerick's Heritage Plan 2017-2030. Policy EH P6 Water and Air Quality It is a policy of the Council to ensure that water and air quality shall be of the highest standard, to ensure the long term economic, social and environmental well-being of Limerick's resources. The World Health Organisation Air Quality Guidelines will be the basis for the air quality guidance in Limerick. Policy EH P7 Environmental Noise It is a policy of the Council to proactively manage environmental noise, where it may have a significant adverse impact on the health and quality of life of communities in Limerick and to support the aims of the Environmental Noise Regulations, through the development and implementation of Noise Action Plans. Objective EH O1 Designated Sites and Habitats Directive It is an objective of the Council to ensure that projects/plans likely to have significant effects on European Sites (either individually or in combination with other plans or projects) are subject to an appropriate assessment and will not be permitted under the Plan unless they comply with Article 6 of the Habitats Directive. The Council, will through the planning enforcement process where applicable, seek to restore the ecological functions of designated sites, where they have been damaged through inappropriate development. Objective EH O2 Lesser Horseshoe Bat It is an objective of the Council to require all developments in areas where there may be Lesser Horseshoe Bats, to submit an ecological assessment of the effects of the development on the species. The assessment shall include mitigation measures to ensure that feeding, roosting or hibernation sites for the species are maintained. The assessment shall also include measures to ensure that landscape features are retained and that the development itself will not cause a barrier or deterrent effect on the species. Objective EH O3 Ecological Impact Assessment It is an objective of the Council to require all developments where there are species of conservation concern, to submit an ecological assessment of the effects of the development on the site and nearby designated sites, suggesting appropriate mitigation measures and establishing, in particular, the presence or absence of the following species: Otter, badger, bats, lamprey and protected plant species such as the Triangular Club Rush, Opposite Leaved Pond Weed and Flora Protection Order Species generally. Objective EH O4 Creation of New Habitats It is an objective of the Council to: a) Seek the creation of new habitats by encouraging wild green areas and new water features such as, pools and ponds in new developments. b) Encourage management plans for green areas to use the minimum of pesticides and herbicides. c) The creation of areas that are not subject to public access in order to promote wildlife use is strongly encouraged. Objective EH O5 New Infrastructure Projects It is an objective of the Council to require new infrastructure and linear developments in particular, to demonstrate at design stage sufficient measures to assist in the conservation of and dispersal of species and to demonstrate a high degree of permeability for wildlife, to allow the movement of species and to prevent the creation of barriers to wildlife and aquatic life in the wider countryside. Objective EH O6 Barn Owl Conservation

[52] Note that non-material changes to individual Plan provisions referenced in this report may be updated during the finalisation of the Plan, including numbering, formatting and graphic design.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Mitigating measures including:
		It is an objective of the Council to require road developments to incorporate from the design stage, elements that will assist in the conservation of the Barn owl. Objective EH O7 All Ireland Pollinator Plan It is an objective of the Council to: a) Continue to actively support the aims and objectives of the All Ireland Pollinator Plan 2021 – 2025, by encouraging measures to protect and increase the population of bees and other pollinating insects in Limerick. b) Support the aims of the National Bio- Diversity Action Plan and succeeding plans, in emphasising the importance of ecological issues in planning. Objective EH O8 Roosting Habitats It is an objective of the Council to require the provision of alternative roosting or settlement facilities for species, such as bird or bat boxes, swift boxes, artificial holts (for otters), or other artificially created habitats in proposed developments, where considered appropriate. Objective EH O9 Geological Sites It is an objective of the Council to: a) Protect from inappropriate development, the County Geological Sites contained in the Limerick Geological Heritage Survey 2021. b) Seek the conservation and protection of features of geological interest within Limerick, particularly those that would have been recognised in the past as Areas of Scientific Interest or by the Geological Survey of Ireland as being of particular value. c) Undertake a survey of such sites during the lifetime of the Plan. Objective EH O10 Trees and Hedgerows It is an objective of the Council to: a) Retain and protect amenity and biodiversity value of the County and City by preserving as far as possible trees, woodlands and hedgerows, having regard to the significant role that trees and hedgerows play in local ecology, climate change and air quality and their contribution to quality place making and the associated health and wellbeing benefits. b) Require, in the event that mature trees or extensive mature hedgerow is proposed to be removed, that a comprehensive tree and hedgerow survey be carried out by a suitably qualified tree specialist to assess the condition, ecological and amenity value of the tree stock/ hedgerow proposed for removal and to include mitigation planting and a management scheme. The Council will seek in all cases to ensure when undertaking development, or when permitting development, that the loss of, or damage to, existing trees is minimised. c) Require the planting of native trees, hedgerows and vegetation and the creation of new habitats in all new developments and public realm projects. The Council will avail of tree planting schemes administered by the Forest Service, in ecologically suitable locations, where this is considered desirable. d) To identity and prepare TPO's where trees of exceptional amenity, cultural or environmental value are identified which warrant a high level of protection. e) To implement the Limerick City and County Tree Policy when completed and review as appropriate. Objective EH O11 Invasive Species It is an objective of the Council to: a) Work with and facilitate the work of agencies addressing the issue of terrestrial and aquatic invasive alien species (IAS), by implementing biosecurity measures, selected control measures and surveys, where appropriate. b) Address the presence of invasive alien species on derelict sites under the provisions of the Derelict Sites Act through the preparation of a management and eradication plan for these species. c) Require the submission of a control and management program for the particular invasive species as part of the planning process, if developments are proposed on sites where invasive species are present. d) Employ biosecurity measures to prevent the spread of invasive alien species and disease and to insist that all such measures are employed on all development sites. Objective EH O12 Blue and Green Infrastructure It is an objective of the Council to: a) Promote a network of blue and green infrastructure throughout Limerick. b) Promote connecting corridors for the movement of species and encourage the retention and creation of features of biodiversity value, ecological corridors and networks that connect areas of high conservation value such as woodlands, hedgerows, earth banks, watercourses, wetlands and designated sites. In this regard, new infrastructural projects and linear developments in particular, will have to demonstrate at design stage, sufficient measures to assist in the conservation of and dispersal of species. Projects which would be detrimental to existing blue and green infrastructure features will not be permitted. c) Ensure the integration and strengthening of green infrastructure into the preparation of Local Area Plans. d) Where possible remove barriers to species movement, such as the removal of in-stream barriers to fish passage for example. e) Seek to advance the use of an ecosystem services approach and ecosystem services valuation as a decision-making tool in plans and projects, subject to appropriate ecological assessment. Objective EH O14 Nature Based Solutions It is an objective of the Council to increase the use of Nature Based Solutions (NBS) throughout Limerick. Development Management Standards, including under 11.3.8 "Landscaping", 11.3.9 "Trees". **Variation No. 3 measures** From Amendment No. 27 of Chapter 3 Spatial Strategy d) Integrate the portion of land zoned Groody Valley Green Wedge into any future residential scheme, ensuring its protection, enhancement, and appropriate incorporation as part of the wider green infrastructure network. From Amendment No.28 of Chapter 3 Spatial Strategy (h) Enhance the quality, connectivity, and usability of the public realm across Moyross by delivering safe, attractive, and inclusive streets, open spaces, and community amenities that support social interaction, active travel, local identity, and long-term neighbourhood regeneration. (i) Establish Moyross as a connected, walkable neighbourhood by prioritising active travel and public transport, reducing reliance on private vehicles, and ensuring that daily services and amenities are easily accessible.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Mitigating measures including:
		(i) Prioritise enhanced north-south and east-west permeability, including new crossings over the rail line alongside a legible urban network bringing together the northern, central and southern areas of Moyross and reconnecting the neighbourhood to TUS, Thomond Park, the Cratloe Road and the wider city From Amendment No. 32 of Chapter 3 Spatial Strategy d) The masterplan shall incorporate a high-quality, connected network of public open spaces and green infrastructure, including the provision of usable and accessible open space and play and recreation facilities which incorporates the strategic Blue-Green Infrastructure corridor route in accordance with the objectives and Development Management Standards of the Limerick Development Plan. Sustainable Urban Drainage Systems (SuDS) shall be fully integrated into the layout and design of the development and shall contribute to surface water management, biodiversity enhancement, climate resilience and placemaking. From Amendment No. 33 of Chapter 3 Spatial Strategy e) The masterplan shall provide for high-quality public open space and recreational facilities and shall incorporate design measures that integrate with and complement the adjoining lands zoned for Open Space and Recreation, respond sensitively to any archaeological features on site, and deliver a coherent, high-quality environment. Sustainable Urban Drainage Systems (SuDS) shall be fully integrated into the layout and design of the development, contributing to effective surface water management, enhanced biodiversity, climate resilience and placemaking.
Population and human health	• Potential adverse effects arising from flood events. • Potential interactions if effects arising from environmental vectors.	Also refer to measures under other environmental components including Soil, Water and Air and Climatic Factors. **Limerick Development Plan 2022-2028, as varied** Objective EH O20 Noise and Vibration during Construction and at Open Sites It is an objective of the Council to protect the quality of the environmental against the effects of noise and vibration, by implementing site appropriate mitigation measures during the construction and demolition phases of development. Objective EH O21 Commercial and Industrial Noise It is an objective of the Council to prevent members of the public being significantly adversely effected by environmental noise from commercial and industrial noise activities. Objective EH O22 Entertainment Noise It is an objective of the Council to manage entertainment noise from venues and music events, so as not to have an adverse effect on the public. Objective EH O25 Air Pollution It is an objective of the Council to implement the provisions of national and EU Directives on air pollution and other relevant legislative requirements in conjunction with other agencies as appropriate. Objective EH O26 Improvement of Air Quality It is an objective of the Council to improve air quality and help prevent people being exposed to unacceptable levels of pollution in Limerick, through the support of sustainable modes of transport, renewable energy, promotion of energy efficient buildings and homes and urban greening. Objective EH O27 Air Quality Monitoring It is an objective of the Council to monitor and provide access to the public on the air quality in Limerick and support the EPA in the expansion and management of the national air quality monitoring network. Objective EH O28 Air Quality during Construction It is an objective of the Council to protect environmental quality and implement site appropriate mitigation measures during construction and demolition phases of a development, with respect to air quality, including dust. Objective EH O29 Odour It is an objective of the Council to protect the public from odour nuisance issues through odour abatement solutions. Policy EH P7 Environmental Noise It is a policy of the Council to proactively manage environmental noise, where it may have a significant adverse impact on the health and quality of life of communities in Limerick and to support the aims of the Environmental Noise Regulations, through the development and implementation of Noise Action Plans. Policy EH P6 Water and Air Quality It is a policy of the Council to ensure that water and air quality shall be of the highest standard, to ensure the long term economic, social and environmental well-being of Limerick's resources. The World Health Organisation Air Quality Guidelines will be the basis for the air quality guidance in Limerick. Objective TR O53 Noise and Transportation It is an objective of the Council to identify appropriate mitigation measures to reduce noise levels from traffic where they are potentially harmful, in accordance with Limerick's Noise Action Plan. Objective TR O54 Noise Sensitive Development It is an objective of the Council to require noise sensitive developments in close proximity to heavily trafficked roads to be designed and constructed to minimise noise disturbance, follow a good acoustic design process and clearly demonstrate that significant adverse noise impacts will be avoided in accordance with Professional Practice Guidance on Planning and Noise (2017) and based on the guidance and recommendations of the World Health Organisation. Objective IN O21 Hazardous Waste and Contaminated Sites It is an objective of the Council to: a) Implement the EPA's National Hazardous Waste Management Plan (NHWMP) 2014-2020 and any subsequent plans. b) Collaborate and seek guidance from the Environmental Protection Agency (EPA), the Health and Safety Authority (HAS), Health Service Executive (HSE) and Southern Region Waste Management Office, on the technical requirements for clearance and redevelopment of any contaminated lands when dealing with planning applications at these locations. Development Management Standards, including under 11.3.12 "Noise"
Soil	• Potential adverse effects on the hydrogeological and ecological function of the	Also refer to measures under other environmental components including Water. **Limerick Development Plan 2022-2028, as varied** Objective SS O1 Compact Growth It is an objective of the Council to strengthen the core of settlements and encourage compact growth, through the development of infill sites, brownfield lands, under-utilised land/buildings, vacant sites and derelict sites, within the existing built-up footprint of the settlements and develop outwards from the centre in a sequential manner.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Mitigating measures including:
	soil resource, including as a result of development on contaminated lands. • Potential for riverbank and coastal erosion.	Objective SS O4 Prevention of Urban Sprawl It is an objective of the Council to prevent linear roadside frontage development on roads leading out of towns and villages in order to retain the identity of towns/villages, to prevent sprawl and to ensure a distinction in character between built up areas and the open countryside. Objective EH O9 Geological Sites It is an objective of the Council to: a) To protect from inappropriate development, the County Geological Sites contained in the Limerick Geological Heritage Survey 2021. b) Seek the conservation and protection of features of geological interest within Limerick, particularly those that would have been recognised in the past as Areas of Scientific Interest or by the Geological Survey of Ireland as being of particular value. c) Undertake a survey of such sites during the lifetime of the Plan. Objective IN O21 Hazardous Waste and Contaminated Sites It is an objective of the Council to: a) Implement the EPA's National Hazardous Waste Management Plan (NHWMP) 2014-2020 and any subsequent plans. b) Collaborate and seek guidance from the Environmental Protection Agency (EPA), the Health and Safety Authority (HAS), Health Service Executive (HSE) and Southern Region Waste Management Office, on the technical requirements for clearance and redevelopment of any contaminated lands when dealing with planning applications at these locations.
Water	• 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.	Also refer to measures under other environmental components including Soil and Material Assets. **Limerick Development Plan 2022-2028, as varied** Objective EH O15 Ground Water, Surface Water Protection and River Basin Management Plans It is an objective of the Council to: a) Protect ground and surface water resources and to take into account the requirement of the Water Framework Directive when dealing with planning and land use issues. b) Implement the provisions of the River Basin Management Plan 2022-2028 and any succeeding plan. The filling of wetlands, surface water features and modifications and drainage of peatlands shall generally be prohibited. c) Implement the measures put forward in the Limerick Groundwater Protection Plan, in assessing planning applications and their consequences for ground d) The Blue Dot Catchments programme is a key action under the River Basin Management Plan for Ireland 2022-2028. The aim of the programme is to protect and restore high ecological status to a network of rivers and water bodies in Limerick. In Limerick, the following rivers and water bodies are Blue Dot Catchments Bleach Lough, the Ogeen River and the Behanagh River. The Council will take a precautionary approach to development which might affect water quality in these areas in line with requirements of the Water Framework Directive. Objective EH O17 Water Quality It is an objective of the Council to support commitments to achieve and maintain 'At Least Good' status, except where more stringent obligations are required. There shall be no deterioration of status for all water bodies under the Marine Strategy Framework Directive and its programme of measures, the Water Framework Directive and the River Basin Management Plan. Key challenges include, inter alia, the need to address significant deficits in urban waste-water treatment and water supply, addressing flooding and increased flood risks from extreme weather events and increased intense rainfall because of climate change. Policy EH P6 Water and Air Quality It is a policy of the Council to ensure that water and air quality shall be of the highest standard, to ensure the long term economic, social and environmental well-being of Limerick's resources. The World Health Organisation Air Quality Guidelines will be the basis for the air quality guidance in Limerick. Objective IN O10 Surface Water and SuDS It is an objective of the Council to: a) Ensure the separation of foul and surface water discharges in new developments through the provision of separate networks within application site boundaries. b) Work in conjunction with other public bodies towards a sustainable programme of improvement for riverbanks, back drains, etc. c) Maintain, improve and enhance the environmental and ecological quality of surface waters and groundwater, including reducing the discharges of pollutants or contaminants to waters, in accordance with the National River Basin Management Plan for Ireland 2018-2021 (DHPLG) and the associated Programme of Measures and any subsequent River Basin Management Plan. d) Ensure adequate storm water infrastructure to accommodate the planned levels of growth within the Plan area and to ensure that appropriate flood management measures are implemented to protect property and infrastructure. e) Cater for the future developments through public and private driven initiatives where discharge capacity permits. f) Address the issue of disposal of surface water generated by existing development in the area, through improvements to surface water infrastructure, including for example attenuation ponds, the application of sustainable urban drainage techniques, or by minimising the amount of hard surfaced areas, or providing porous surfaces as the opportunity arises. g) Protect the surface water resources of the Plan area and in individual planning applications request the provision of sediment and grease traps and pollution control measures where deemed necessary. h) Require all planning applications to include surface-water design calculations to establish the suitability of drainage between the site and the outfall point and require all new developments to include SuDS, to control surface water outfall and protect water quality in accordance with the requirements of Chapter 11: Development Management Standards of the Plan. i) Promote SuDS and grey water recycling in developments and responsible use of water by the wider community, to reduce the demand for water supply. j) Require SuDS schemes to be designed to incorporate the four pillars of water quality, water quantity, biodiversity and amenity to the greatest extent possible within the constraints of a given site. k) Allow sufficient land take for SuDS when planning the site and consider the region as a whole, in association with adjoining lands and their requirements in designing SuDS. Developers may be required to set aside lands to cater for not only their own SuDS but also regional SuDS. l) Promote the provision of suitable Blue/Green Infrastructure (BGI) and Nature Based Solutions to the surface water disposal in new development, as a means to provide urban flood resilience. This approach capitalises on the potential of urban green spaces and natural water flows, subject to the other planning considerations such as amenity, maintenance, traffic safety, proper planning and sustainable development and environmental requirements.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Mitigating measures including:
		m) To prohibit the discharge of additional surface water to combined (foul and surface water) sewers in order to maximise the capacity of existing collection systems for foul water. n) Encourage green roofs for the following types of development: -Apartment developments; -Employment developments; -Retail developments; -Leisure facilities; -Education facilities. Objective CAF O11 Nature Based Solutions It is an objective of the Council to promote integration and delivery of nature based solutions and infrastructure in new developments, including surface water management, public realm and community projects as a means of managing flood risk and enhancing the natural environment. Policy CAF P5 Managing Flood Risk It is a policy of the Council to protect Flood Zone A and Flood Zone B from inappropriate development and direct developments/land uses into the appropriate lands, in accordance with The Planning System and Flood Risk Management Guidelines for Planning Authorities 2009 (or any superseding document) and the guidance contained in Development Management Standards. Where a development/land use is proposed that is inappropriate within the Flood Zone, then the development proposal will need to be accompanied by a Development Management Justification Test and site specific Flood Risk Assessment in accordance with the criteria set out under The Planning System and Flood Risk Management Guidelines for Planning Authorities 2009 and Circular PL2/2014 (as updated/superseded). In Flood Zone C, the developer should satisfy themselves that the probability of flooding is appropriate to the development being proposed and should consider the implications of climate change. Objective CAF O20 Flood Risk Assessments It is an objective of the Council to require a Site-specific Flood Risk Assessment (FRA) for all planning applications in areas at risk of flooding (coastal/tidal, fluvial, pluvial or groundwater), where deemed necessary. The detail of these Site-specific FRAs (or commensurate assessments of flood risk for minor developments) will depend on the level of risk and scale of development. A detailed Site-specific FRA should quantify the risks, the effects of selected mitigation and the management of any residual risks. The assessments shall consider and provide information on the implications of climate change with regard to flood risk in relevant locations. Objective CAF O21 Identified Flood Risk (as amended by Variation No. 3) It is an objective of the Council to: a) Ensure that no development shall commence on the lands identified as being at flood risk adjacent to the Raheen Business Park in the townlands of Ballycummin/ Rootiagh, zoned for High Tech/ Manufacturing, until a Site-specific Flood Risk Assessment, including hydraulic model has been prepared for the lands, which demonstrates that the flood risk for the lands can be mitigated or that a less vulnerable use can be accommodated on site. b) Ensure that on the Enterprise and Employment lands located to the northwest of the M20/M7/N18 junction to the south of Toppin's field, that no encroachment onto, or loss of the flood plain occurs at this location and that only water compatible development should be permitted for the lands that are identified as being at risk of flooding. c) Ensure any planning application, including proposals for water compatible uses, on the lands in Flood Zones A and B adjacent to the Coonagh TUS campus, zoned for Education and Community, shall include a comprehensive Site-Specific Flood Risk Assessment, incorporating a drainage assessment for the lands, which demonstrates that the flood risk can be mitigated and that water compatible uses can be accommodated without adversely impacting on the flood risk of neighbouring residential properties. d) No works including the undertaking of ground level changes shall commence on the lands in the National Technology Park subject to flood risk, until all flood mitigation measures proposed on the site to facilitate future development of the IDA lands have been put in place. These measures shall form part of a project-specific flood risk assessment being completed as part of any planning application. e) Implement the flood mitigation measures included under the Justification Test including to ensure that vulnerable uses, including that of a residential nature, shall not be permitted at ground floor level on the District Centre zoned lands at Jetland/Ennis Road/ Ennis Road Retail Park, at Caherdavin/Moyross. f) New or more intensive permissible uses not covered by part (g) below on Variation No. 3 lands including Sites Z10 and Z11 that overlap with Flood Zones A or B or with Future Climate Scenario Flood Risk Areas (as identified in Appendix I of the accompanying SFRA Addendum) shall be limited to water compatible uses. This limitation shall take primacy over any other related land use zoning provision including the City Centre zoning applicable to Sites Z10 and Z11. Proposals for developments within these areas shall be accompanied by a Site-Specific Flood Risk Assessment. (g) Extensions of existing uses or minor development on Variation No. 3 lands including Sites Z10 and Z11 that overlap with Flood Zones A or B or with Future Climate Scenario Flood Risk Areas (as identified in Appendix I of the accompanying SFRA Addendum) shall comply with requirements of the Planning System and Flood Risk Assessment Guidelines, and associated circular, including providing detailed design specifications as may be required to facilitate the impact of development. Extensions of existing uses or minor development within flood risk areas shall not: obstruct important flow paths; introduce a number of people into flood risk areas; entail the storage of hazardous substances; have adverse impacts or impede access to a watercourse, floodplain or flood protection and management facilities; or increase the risk of flooding elsewhere. Objective CAF O23 Flood Relief Schemes It is an objective of the Council to support and facilitate the development of Flood Relief Schemes as identified in the CFRAM 10 Year Investment Programme and ensure development proposals do not impede or prevent the progression of these measures. Objective CAF O24 Minor Flood and Mitigation Works and Coastal Protections Schemes It is an objective of the Council to support and facilitate the Office of Public Works Minor Flood and Mitigation Works and Coastal Protections Schemes and ensure development proposals do not impede or prevent the progression of these measures. Objective CAF O25 Strategic Flood Risk Assessment It is an objective of the Council to have regard to the recommendations set out in the Strategic Flood Risk Assessment prepared to support the Plan. Development Management Standards, including under 11.3.8 "Landscaping", 11.3.11 SuDS (Sustainable Drainage Systems).

Topic	Potentially Significant Adverse Effect, if Unmitigated	Mitigating measures including:
		Variation No. 3 measures f) New or more intensive permissible uses not covered by part (g) below on Variation No. 3 lands including Sites Z10 and Z11 that overlap with Flood Zones A or B or with Future Climate Scenario Flood Risk Areas (as identified in Appendix I of the accompanying SFRA Addendum) shall be limited to water compatible uses. This limitation shall take primacy over any other related land use zoning provision including the City Centre zoning applicable to Sites Z10 and Z11. Proposals for developments within these areas shall be accompanied by a Site-Specific Flood Risk Assessment. (g) Extensions of existing uses or minor development on Variation No. 3 lands including Sites Z10 and Z11 that overlap with Flood Zones A or B or with Future Climate Scenario Flood Risk Areas (as identified in Appendix I of the accompanying SFRA Addendum) shall comply with requirements of the Planning System and Flood Risk Assessment Guidelines, and associated circular, including providing detailed design specifications as may be required to facilitate the impact of development. Extensions of existing uses or minor development within flood risk areas shall not: obstruct important flow paths; introduce a number of people into flood risk areas; entail the storage of hazardous substances; have adverse impacts or impede access to a watercourse, floodplain or flood protection and management facilities; or increase the risk of flooding elsewhere.From Amendment No. 32 of Chapter 3 Spatial Strategy d) The masterplan shall incorporate a high-quality, connected network of public open spaces and green infrastructure, including the provision of usable and accessible open space and play and recreation facilities which incorporates the strategic Blue-Green Infrastructure corridor route in accordance with the objectives and Development Management Standards of the Limerick Development Plan. Sustainable Urban Drainage Systems (SuDS) shall be fully integrated into the layout and design of the development and shall contribute to surface water management, biodiversity enhancement, climate resilience and placemaking. From Amendment No. 33 of Chapter 3 Spatial Strategy c) A Site-Specific Flood Risk Assessment which shall provide detail on the most suitable point of access to this site in line with the provision of the Flood Risk Management Guidelines for Planning Authorities, 2009. e) The masterplan shall provide for high-quality public open space and recreational facilities and shall incorporate design measures that integrate with and complement the adjoining lands zoned for Open Space and Recreation, respond sensitively to any archaeological features on site, and deliver a coherent, high-quality environment. Sustainable Urban Drainage Systems (SuDS) shall be fully integrated into the layout and design of the development, contributing to effective surface water management, enhanced biodiversity, climate resilience and placemaking. From Amendment No. 42 of Chapter 8: Infrastructure d) Consider the provision of developer-led and bridging infrastructure at appropriate locations having regard to Circular NSP 01-2026 Developer Led Infrastructure (DLI) Initiative for Wastewater Services to support Housing Delivery and any subsequent revisions where the proposed development is subject to appropriate environmental assessment. Such a solution will only be considered where it is environmentally sustainable and would not affect the quality status of receiving waters. e) Support Uisce Éireann in the upgrade of Limerick Wastewater Treatment Plant, Corcanree pumpstation and the development of the Regional Bioresource Centre, in line with the appropriate and necessary environmental and ecological assessments, as required, to support both the existing and future growth and development of Limerick City into the future and to comply with the National Wastewater Sludge Management Plan.
Air and Climatic Factors	• Potential conflict between development under the Variation 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	**Limerick Development Plan 2022-2028, as varied** Objective IN O1 Climate Action in Infrastructure Planning It is an objective of the Council to: a) Require all infrastructure development, whether above ground or subterranean, to avoid flood risk areas and areas at risk of coastal erosion. b) Require site selection, location, design and materials to have regard to and be resilient to the changing climate (high winds, temperature fluctuations, increased storm intensity and changes in rainfall). c) Collaborate with utility and service providers to ensure their networks are resilient to the impacts of climate change, both in terms of design and ongoing maintenance. Policy EH P3 Climate Action and the Natural Environment It is a policy of the Council to take into account the contents of the National Biodiversity Action Plan and the Biodiversity Climate Adaptation Plan and any forthcoming guidance or legislation on climate action, whether adaptation or mitigation that will emerge during the course of the Plan. Air Quality and Noise Objective EH O25 Air Pollution It is an objective of the Council to implement the provisions of national and EU Directives on air pollution and other relevant legislative requirements in conjunction with other agencies as appropriate. Objective EH O26 Improvement of Air Quality It is an objective of the Council to improve air quality and help prevent people being exposed to unacceptable levels of pollution in Limerick, through the support of sustainable modes of transport, renewable energy, promotion of energy efficient buildings and homes and urban greening. Objective EH O27 Air Quality Monitoring It is an objective of the Council to monitor and provide access to the public on the air quality in Limerick and support the EPA in the expansion and management of the national air quality monitoring network. Objective EH O28 Air Quality during Construction It is an objective of the Council to protect environmental quality and implement site appropriate mitigation measures during construction and demolition phases of a development, with respect to air quality, including dust. Objective EH O29 Odour It is an objective of the Council to protect the public from odour nuisance issues through odour abatement solutions. Policy EH P7 Environmental Noise It is a policy of the Council to proactively manage environmental noise, where it may have a significant adverse impact on the health and quality of life of communities in Limerick and to support the aims of the Environmental Noise Regulations, through the development and implementation of Noise Action Plans. Objective EH O20 Noise and Vibration during Construction and at Open Sites It is an objective of the Council to protect the quality of the environmental against the effects of noise and vibration, by implementing site appropriate mitigation measures during the construction and demolition phases of development.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Mitigating measures including:
	adaptation measures including those relating to flood risk management.	Policy EH P6 Water and Air Quality It is a policy of the Council to ensure that water and air quality shall be of the highest standard, to ensure the long term economic, social and environmental well-being of Limerick's resources. The World Health Organisation Air Quality Guidelines will be the basis for the air quality guidance in Limerick. Objective TR O53 Noise and Transportation It is an objective of the Council to identify appropriate mitigation measures to reduce noise levels from traffic where they are potentially harmful, in accordance with Limerick's Noise Action Plan. Objective TR O54 Noise Sensitive Development It is an objective of the Council to require noise sensitive developments in close proximity to heavily trafficked roads to be designed and constructed to minimise noise disturbance, follow a good acoustic design process and clearly demonstrate that significant adverse noise impacts will be avoided in accordance with Professional Practice Guidance on Planning and Noise (2017) and based on the guidance and recommendations of the World Health Organisation. Sustainable Mobility and Transport Policy TR P3 Integration of Land Use and Transport Policies It is a policy of the Council to support and facilitate the integration of land use and transportation policies, to ensure the delivery of sustainable compact settlements, which are served by sustainable modes of transport. Policy TR P4 Promotion of Sustainable Patterns of Transport Use It is a policy of the Council to seek to implement in a positive manner, in cooperation with other relevant authorities and agencies, the policies of the NPF, RSES and the Department of Transport's Smarter Travel, A Sustainable Transport Future 2009 – 2020 (and any subsequent updates), to encourage more sustainable patterns of travel and greater use of sustainable forms of transport, including public transport, cycling and walking. Policy TR P5 Sustainable Mobility and Regional Accessibility It is a policy of the Council to support sustainable mobility, enhanced regional accessibility and connectivity within Limerick, in accordance with the National Strategic Outcomes of the National Planning Framework and the Regional Spatial and Economic Strategy for the Southern Region. Policy TR P6 Sustainable Travel and Transport It is a policy of the Council to support, facilitate and co-operate with relevant agencies to secure sustainable travel within Limerick and seek to implement the 10 minute city/town concept, promote compact growth and reduce the need for long distance travel, as a means to reduce the impact of climate change. Objective TR O1 Climate Proofed Transport Infrastructure It is an objective of the Council to ensure that all future and retrofitted transport infrastructure is climate proofed, through design and construction, to function in a climate altered future and would, where possible, be multifunctional e.g. provide accessible routes for other services such as fibre optics or water, energy connections or other services and technologies that might come about during the lifetime of the infrastructure. Objective TR O3 Delivery and Servicing Strategy It is an objective of the Council to: a) Reduce the amount of 'last mile trips' being made by motorised vehicles; b) Facilitate the transition to zero emission delivery vehicles such as cargo bikes, solar powered and electric vehicles; and c) Support local 'Click and Collect' facilities where appropriate to minimise trips to individual homes and workplaces. Objective TR O4 Universal Design It is an objective of the Council to ensure that all transport schemes incorporate high-quality urban realm design that is attractive, safe, comfortable and accessible for all individuals. Objective TR O6 Delivering Modal Split It is an objective of the Council to: a) Promote a modal shift away from the private car towards more sustainable modes of transport including walking, cycling, carpool and public transport in conjunction with the relevant transport authorities; b) Support investment in sustainable transport infrastructure that will make walking, cycling, carpool and public transport more attractive, appealing and accessible for all. Objective TR O8 Walking and Cycling Infrastructure It is an objective of the Council to: a) Improve and provide clear, safe and direct pedestrian linkages, cycle networks, including the greenways and primary segregated cycle routes, between the employment zones, shopping areas and residential areas throughout Limerick; b) Maintain and expand the pedestrian route network, infrastructure and where possible retrofit cycle and pedestrian routes into the existing urban road network, to provide for accessible safe pedestrian routes within Limerick. Objective TR O9 Limerick Cycle Network It is an objective of the Council to implement in full, the Cycle Network, which will be set out in the final LSMATS, with priority given in the short term to delivering the primary cycle network and cycle routes serving schools. Objective TR O10 Limerick Regeneration Areas Sustainable Travel Infrastructure It is an objective of the Council to support LSMATS in the identification and delivery of improvements to walking/cycling infrastructure and improvements to public transport, based on those measures identified in the Limerick Regeneration Framework Implementation Plan. Objective TR O11 Enhanced Public Transport It is an objective of the Council to support and encourage public transport providers to enhance the provision of public transportation and frequency of services in Limerick, including the provision of enhanced accessibility from the City Centre to Shannon Airport.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Mitigating measures including:
		Objective TR O15 Transport Interchange It is an objective of the Council to facilitate the provision of quality transport interchanges, in order to facilitate focussed access to multiple public transport modes and to maximise the movement of people via sustainable modes. Objective TR O16 Rail Network a) Explore a pathway to rail-based development in the review of the RSES and MASP in conjunction with the National Transport Authority and the Southern and Western Regional Assemblies; b) Support and facilitate new and upgrading of existing rail networks, railway stations and services across Limerick as identified in LSMATS and protect, as required, lands necessary for the upgrading of existing railway lines or stations, which would improve journey times and enable an increase in the frequency of services and connections. Objective TR O17 Electric Vehicles It is an objective of the Council to: a) Encourage the switch to Electric Vehicles and e-bikes through the roll-out of additional electric charging points at appropriate locations, throughout Limerick, in association with relevant agencies and stakeholders; b) Facilitate the provision of electricity charging infrastructure for electric vehicles, both on street and in new developments, in accordance with the Development Management Standards set out in Chapter 11. Objective TR O23 Mobility Management It is an objective of the Council to require the submission of Mobility Management Plans, subject to the guidance provided in the Toolkit for School Travel, Safe Routes to School Programme, Workplace Travel Plans – A Guide for Implementers and Achieving Effective Workplace Travel Plans – Guidance for Local Authorities, for any development that the Council consider will have significant trip generation and attraction rates, at peak hours or throughout the day and where existing or proposed public transport may be utilised. Climate Action and Transition to Low Carbon Economy Policy CAF P1 Climate Action Policy It is a policy of the Council to implement international and national objectives, to support Limerick's transition to a low carbon economy and support the climate action policies included in the Plan. Objective CAF O1 Compliance with Higher Tier Climate Legislation and Guidance It is an objective of the Council to support the National Adaptation Framework 2018 and the National Climate Change Strategy, including the transition to a low carbon future, taking account of flood risk, the promotion of sustainable transport, soil conservation, the importance of green infrastructure, improved air quality, the use of renewable resources and the re-use of existing resources. Support the implementation of the Limerick Climate Change Adaptation Strategy (2019) and any revised or forthcoming adaptation, mitigation or climate action strategies or plans at local, regional and national level in the formulation of any plans or policies. Objective CAF O2 Partnership with Service Providers It is an objective of the Council to work in partnership with existing service providers to facilitate required enhancement and upgrading of existing infrastructure and networks (subject to appropriate environmental assessment and the planning process) while cognisance shall be had to support the safeguarding of strategic energy corridors from encroachment by other developments, that could compromise the delivery of energy networks. Objective CAF O3 Sustainable Development It is an objective of the Council to support sustainable travel, energy efficient projects, provision of green spaces and open space and sustainable residential development projects, as a means of addressing climate change. Objective CAF O4 Climate Proofing It is an objective of the Council to ensure climate proofing measures are incorporated into the design, planning, layout and orientation and construction of all developments, including the use of sustainable materials, selection of suitable locations and the use of renewable energy sources. Objective CAF 05 Energy Efficiency in Existing Development It is an objective of the Council to support the retrofitting of existing buildings over their demolition and the integration of renewables into existing buildings, thereby ensuring a fabric first approach is taken. Objective CAF O6 Energy Efficiency in New Developments It is an objective of the Council to ensure that all developments are designed to take account of the impacts of climate change. This will include the installation of rainwater harvesting systems, sustainable urban drainage systems and nature based solutions for water management. Energy efficiency and renewable energy measures should be incorporated, in the cases of large industrial, commercial or newly constructed public buildings. The incorporation of renewable technologies, such as solar energy in the design will be encouraged, subject to compliance with all relevant planning criteria. Objective CAF O7 Near Zero Energy Buildings It is an objective of the Council to support and promote climate smart and the Near Zero Energy Building (NZEB) standard of building, or equivalent, for all new developments. Objective CAF O8 Renewable Energy Objective It is an objective of the Council to promote and support development of renewable energy sources, which will achieve low carbon outputs including on-land and off-shore renewable energy production, which support tidal turbine, PV, community energy companies and battery technology, subject to adequate environmental and ecological protection. Objective CAF O9 Achieving Climate Resilience It is an objective of the Council to promote climate resilience in development and economic activities that are regulated by planning. It is important to ensure that any developments are climate resilient as they will need to function in a climate altered environment. This means that they will be able to withstand increased intensity of storm events and rainfall and through adequate design, location and drainage elements, would not contribute to problems elsewhere, such as increased run off. Objective CAF O12 Urban Greening It is an objective of the Council to support urban greening and planting initiatives across the city, towns and villages. Policy CAF P2 Transition to a Low Carbon Economy It is a policy of the Council to support the transition to a low carbon climate resilient economy, by way of reducing greenhouse gases, increasing renewable energy and improving energy efficiency and will future proof policies and objectives to deliver on this approach, in so far as possible.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Mitigating measures including:
		Policy CAF P3 Promote Awareness and Behavioural Change It is a policy of the Council to promote awareness and support behavioural change in relation to climate change and transition to a low carbon economy. Policy CAF P4 Co–operation with Relevant Stakeholders It is a policy of the Council to cooperate with the Climate Action Regional Office (CARO) and other relevant stakeholders, in respect of adaptation and mitigation of greenhouse gas emissions and future climate change adaptation strategies. Objective CAF O14 Energy Generation It is an objective of the Council to support the local production of renewable energy and connection to gas network. Where electricity is being generated locally, the Council will support the provision of infrastructure for its transmission to the grid, subject to it fulfilling technical and environmental requirements. Objective CAF O15 Local Energy Production It is an objective of the Council to support localised renewable and carbon friendly means of heating and energy provision, including district heating systems. New technologies such as air to water and geothermal may have a role to play in this regard. Objective CAF O16 Circular Economy It is an objective of the Council to encourage the adoption of the circular economy through promotion of the reuse, recycling and reduction of the use of raw materials and resources. Objective CAF O17 Low Energy Building Materials It is an objective of the Council to encourage the use of low energy building materials and design in all developments. Objective TLC O18 Energy and Emissions Balance It is an objective of the Council to support the Energy and Emissions Balance Report and updates of the report as they are prepared. The Council will also support the preparation of a Local Authority Climate Action Plan as outlined in the report. Objective CAF O19 Decarbonising Zones It is an objective of the Council to support the identification of a Decarbonising Zone by designating a spatial area, in which a range of climate mitigation, adaptation and biodiversity measures and action owners are identified, to address local low carbon energy, greenhouse gas emissions and climate needs, to contribute to national climate action targets and work with statutory agencies and stakeholders as appropriate. Objective CAF O22 Cooperation with Other Agencies It is an objective of the Council to work with other bodies and organisations, as appropriate, to help protect critical infrastructure, including water and wastewater, within Limerick, from risk of flooding. Any subsequent plans shall consider, as appropriate any new and/or emerging data, including, when available, any relevant information contained in the CFRAM Flood Risk Management Plans and as recommended in the SFRA for the Plan. Policy CAF P6 Renewable Energy It is a policy of the Council to support renewable energy commitments outlined in national and regional policy, by facilitating the development and exploitation of a range of renewable energy sources at suitable locations throughout Limerick, where such development does not have a negative impact on the surrounding environment landscape, biodiversity, water quality or local amenities, to ensure the long term sustainable growth of Limerick. Policy CAF P7 Atlantic Green Digital Basin (GDB) It is a policy of the Council to support the development of Atlantic Green Digital Basin (GDB) proposals within Limerick and the wider region, subject to appropriate levels of environmental assessment and planning considerations and to work with relevant stakeholders to realise its potential. Policy CAF P8 Community Based Renewable Energy It is a policy of the Council to support the development of community based renewable energy projects, subject to appropriate levels of environmental assessment and planning considerations. Policy CAF P9 Renewable Energy Technologies It is a policy of the Council to consider all emerging renewable energy technologies, such as hydrogen electrolysis, pumped storage and small scale anaerobic digestion and any other source of renewable energy technologies that are viable as a means of energy security, subject to the relevant level of necessary environment and ecological assessments. Objective CAF O26 Bio Energy It is an objective of the Council to support the development of bio energy and projects in suitable locations and subject to adequate assessment. The development of grid injection, where this is necessary for renewable energy input will also be supported. Objective CAF O27 Renewable Energy Production It is an objective of the Council to encourage and facilitate the production of energy from renewable sources, such as from bioenergy, solar, hydro, tidal, geothermal and wind energy, subject to appropriate levels of environmental assessment and planning considerations. Objective CAF O28 Assessment of Renewable Energy Projects It is an objective of the Council to encourage the development of wind energy, in accordance with Government policy and having regard to the principles and planning guidance set out in the Department of Housing, Planning and Local Government publications relating to Wind Energy Development and the DCCAE Code of Practice for Wind Energy Development in Ireland and any other relevant guidance, which may be issued in relation to sustainable energy provisions during the course of the Plan. Objective CAF O35 Community Based Energy Initiatives It is an objective of the Council to support community energy-based initiatives, subject to adequate assessment, to help achieve low carbon communities. Objective CAF O36 Geothermal Energy It is an objective of the Council to facilitate geothermal energy generating developments, both standalone and in conjunction with other renewable energy projects in suitable locations. Objective CAF O40 Community Renewable Energy It is an objective of the Council to support and strengthen sustainable local/community renewable energy networks, micro renewable generation, climate smart countryside projects and connections from such initiatives to the grid. The potential for sustainable local/community energy projects and micro generation to both mitigate climate change and to provide for local fuel need is also supported.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Mitigating measures including:
		Development Management Standards, including under 11.7 "Climate Action". **Variation No. 3 measures** From Amendment No. 27 of Chapter 3 Spatial Strategy c) Ensure that new development incorporates high levels of accessibility, providing safe and convenient connections for pedestrians, cyclists, and public transport users, where feasible, and contributing to a permeable and well-connected urban structure. d) Integrate the portion of land zoned Groody Valley Green Wedge into any future residential scheme, ensuring its protection, enhancement, and appropriate incorporation as part of the wider green infrastructure network. e) Require all development proposals to be accompanied by a Mobility Management Plan, Traffic and Transport Assessment, and Road Safety Audit, prepared in accordance with Chapter 3 of the DoECLG Spatial Planning and National Roads Guidelines, to support sustainable movement patterns and safeguard road safety and to assess cumulative impact of development in the area and incorporate measures to safeguard the continued capacity, safety and efficiency of the national road networks and associated junctions. g) Locate car parking underground or to the rear of buildings, with any necessary surface parking adequately screened, landscaped, and fully integrated into the site design in line with high-quality urban design and placemaking principles. From Amendment No.28 of Chapter 3 Spatial Strategy (h) Enhance the quality, connectivity, and usability of the public realm across Moyross by delivering safe, attractive, and inclusive streets, open spaces, and community amenities that support social interaction, active travel, local identity, and long-term neighbourhood regeneration. (i) Establish Moyross as a connected, walkable neighbourhood by prioritising active travel and public transport, reducing reliance on private vehicles, and ensuring that daily services and amenities are easily accessible. (i) Prioritise enhanced north-south and east-west permeability, including new crossings over the rail line alongside a legible urban network bringing together the northern, central and southern areas of Moyross and reconnecting the neighbourhood to TUS, Thomond Park, the Cratloe Road and the wider city From Amendment No. 30 of Chapter 3 Spatial Strategy Support the continued use and any potential future expansion of the Kilmallock Road Campus (formerly St. Enda's) as a key educational facility and promote the consideration of its reuse for enhanced education, training and sports-related projects. Facilitate the potential development of new sports infrastructure and associated facilities on the campus, ensuring the site's long-term role as a strategic centre for learning, community development and sporting activity. Support the provision of high-quality pedestrian and cycle connectivity through the site, facilitating safe and direct links between Banemore Road and Kilmallock Road. From Amendment No. 32 of Chapter 3 Spatial Strategy f) Any proposal shall require a Transport and Traffic Assessment and Road Safety Audit to assess cumulative impact of development in the area and incorporate measures to safeguard the continued capacity, safety and efficiency of the national road networks and associated junctions. g) The masterplan shall also address: the integration of the site with surrounding lands and communities; permeability, legibility and prioritisation of walking, cycling and public transport; appropriate phasing to ensure infrastructure and amenities are delivered concurrently with residential development; and a high standard of urban design, layout and place-making, consistent with national and local planning policy. From Amendment No. 33 of Chapter 3 Spatial Strategy d) A Transport and Traffic Assessment shall be undertaken to assess the impact of the proposed development and setting out mitigation measures, including the delivery by the developer of a continuous footpath to include active travel measures along the full Rossbrien Road site frontage and the provision of safe, accessible, and permeable pedestrian connections within the site. Amendment No. 74 Objective TF 01 - Local Transport Framework - It is an objective of the Council to: Prepare a local transport framework for the wider lands at Rosbrien (taking account of the Area Based Transport Assessment methodology or similar) in consultation with National Transport Authority, Transport Infrastructure Ireland and Iarnród Éireann to include the following; (i) appropriate provision of sustainable transport options to serve future residents of the area in consultation. (ii) Pedestrian and cycle linkages through the area and over the railway line towards Dooradoyle to provide greater connections to retail and community facilities.
Material Assets	• 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	Also refer to measures under other environmental components including Population and Human Health, Cultural Heritage, Soil, Water, Air, various Land Use and Phasing provisions. **Limerick Development Plan 2022-2028, as varied** Policy IN P1 Strategic Infrastructure It is a policy of the Council to: a) Secure investment in the necessary infrastructure (including digital technology, ICT, telecommunications networks, water services, surface water management, waste management, energy networks), which will allow Limerick to grow and realise its full potential. b) Fulfil Limerick's ambition as a contemporary City and County in which to live, work, invest and visit, with supporting infrastructure, whilst complying with the relevant EU Directives and national legislation, including the protection of the environment. Blue/Green Infrastructure Objective EH O12 Blue Green Infrastructure a) Promote a network of Green and Blue infrastructure throughout Limerick. b) Promote connecting corridors for the movement of species and encourage the retention and creation of features of biodiversity value, ecological corridors and networks that connect areas of high conservation value such as woodlands, hedgerows, earth banks, watercourses, wetlands and designated sites. In this regard, new infrastructural projects and linear developments in particular, will have to demonstrate at design stage, sufficient measures to assist in the conservation of and dispersal of species. Projects which would be detrimental to existing Blue – Green Infrastructure features will not be permitted. c) Ensure the integration and strengthening of green infrastructure into the preparation of Local Area Plans. d) Where possible remove barriers to species movement, such as the removal of in-stream barriers to fish passage for example. Objective EH O13 Blue Green Infrastructure Strategy

Topic	Potentially Significant Adverse Effect, if Unmitigated	Mitigating measures including:
	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.	It is an objective of the Council to prepare and implement a Green and Blue Infrastructure Strategy for Limerick City and Environs. e) Seek to advance the use of an ecosystem services approach and ecosystem services valuation as a decision-making tool in plans and projects, subject to appropriate ecological assessment. Water Services Objective IN O5 Water Services It is an objective of the Council to: a) Support Irish Water in the provision of water and wastewater infrastructure and services in accordance with the Service Level Agreement, until such time as the Agreement is terminated. b) Collaborate with Irish Water in the protection of water supply sources to avoid water quality deterioration and reduce the level of treatment required in the production of drinking water, in accordance with Article 7(2) of the WFD. Protection and restoration of drinking water at the source can have co-benefits for biodiversity and climate change. c) Liaise with Irish Water during the lifetime of the Plan to secure investment in the pro-vision, extension and upgrading of the piped water distribution network and wastewater pipe network across Limerick City and County, to serve existing population and future population growth and sustain economic growth, in accordance with the requirements of the Core and Settlement Strategies. d) Collaborate with Irish Water to resolve the existing water services infrastructural constraints in Newcastle West – a Key Town designated by the RSES. e) Ensure that development proposals connecting to the public water and/or wastewater networks comply with Irish Water Standard Details and Codes of Practice. Where relevant ensure developments comply with the EPA Code of Practice for Domestic Waste Water Treatment Systems 2021. f) Require future developments to connect to public water services and wastewater if available to the site. Combined water and wastewater systems will not be permitted. Consent to connect to Irish Water assets will be requested as part of the planning application process. g) Have regard to Section 28 Guidelines – Draft Water Services Guidelines for Planning Authorities, DHPLG, 2018 and any subsequent guidelines when carrying out the forward planning and development management functions of the Planning Authority. Objective IN O6 Drinking Water Source Protection It is an objective of the Council to protect both ground and surface water sources, to avoid water quality deterioration and reduce the level of treatment required in the production of drinking water, in accordance with Article 7(2) of the Water Framework Directive. i. New developments which could pose an unacceptable risk to drinking water sources will not be permitted. ii. New development should not conflict with the protection guidelines set out in the Limerick Groundwater Protection Scheme and/ or Groundwater Source Protection Zone reports. Objective IN O8 Public Waste Water It is an objective of the Council to: a) Ensure adequate and appropriate wastewater infrastructure is available to cater for existing and proposed development, in collaboration with Irish Water, to avoid any deterioration in the quality of receiving waters and to ensure that discharge meets the requirements of the Water Framework Directive. b) Require all new developments to connect to public wastewater infrastructure, where available and to encourage existing developments that are in close proximity to a public sewer to connect to that sewer. These will be subject to a connection agreement with Irish Water and evidence of this agreement will be required as part of any planning application. c) Require all new development to provide separate foul and surface water drainage systems, to maximise the capacity of existing collection systems for foul water. d) Apply a presumption against any development that requires the provision of private wastewater treatment facilities (i.e. Developer Provided Infrastructure) other than single house systems and in very exceptional circumstances. Objective IN O10 Surface Water and SuDS It is an objective of the Council to: a) Ensure the separation of foul and surface water discharges in new developments through the provision of separate networks within application site boundaries. b) Work in conjunction with other public bodies towards a sustainable programme of improvement for riverbanks, back drains, etc. c) Maintain, improve and enhance the environmental and ecological quality of surface waters and groundwater, including reducing the discharges of pollutants or contaminants to waters, in accordance with the National River Basin Management Plan for Ireland 2018-2021 (DHPLG) and the associated Programme of Measures and any subsequent River Basin Management Plan. d) Ensure adequate storm water infrastructure to accommodate the planned levels of growth within the Plan area and to ensure that appropriate flood management measures are implemented to protect property and infrastructure. e) Cater for the future developments through public and private driven initiatives where discharge capacity permits. f) Address the issue of disposal of surface water generated by existing development in the area, through improvements to surface water infrastructure, including for example attenuation ponds, the application of sustainable urban drainage techniques, or by minimising the amount of hard surfaced areas, or providing porous surfaces as the opportunity arises. g) Protect the surface water resources of the Plan area and in individual planning applications request the provision of sediment and grease traps and pollution control measures where deemed necessary. h) Require all planning applications to include surface-water design calculations to establish the suitability of drainage between the site and the outfall point and require all new developments to include SuDS, to control surface water outfall and protect water quality in accordance with the requirements of Chapter 11: Development Management Standards of the Plan. i) Promote SuDS and grey water recycling in developments and responsible use of water by the wider community, to reduce the demand for water supply. j) Require SuDS schemes to be designed to incorporate the four pillars of water quality, water quantity, biodiversity and amenity to the greatest extent possible within the constraints of a given site. k) Allow sufficient land take for SuDS when planning the site and consider the region as a whole, in association with adjoining lands and their requirements in designing SuDS. Developers may be required to set aside lands to cater for not only their own SuDS but also regional SuDS. l) Promote the provision of suitable Blue/Green Infrastructure (BGI) and Nature Based Solutions to the surface water disposal in new development, as a means to provide urban flood resilience. This approach capitalises on the potential of urban green spaces and natural water flows, subject to the other planning considerations such as amenity, maintenance, traffic safety, proper planning and sustainable development and environmental requirements. m) To prohibit the discharge of additional surface water to combined (foul and surface water) sewers in order to maximise the capacity of existing collection systems for foul water. n) Encourage green roofs for the following types of development: -Apartment developments; -Employment developments;

Topic	Potentially Significant Adverse Effect, if Unmitigated	Mitigating measures including:
		-Retail developments; -Leisure facilities; -Education facilities. Traffic Objective TR O44 Traffic Management It is an objective of the Council to require the submission of Mobility Management Plans and Traffic and Transport Assessments in accordance with the requirements of Traffic and Transport Assessment Guidelines (2014), for developments with the potential to create significant additional demands on the traffic network by virtue of the nature of their activity, the number of employees, their location or a combination of these factors and for significant developments affecting the national and non-national road network. Waste Management Objective IN O15 Waste Management and the Circular Economy It is an objective of the Council to: a) Support innovative, smart solutions and processes, based on the principles of the circular economy to implement the Regional Waste Management Plan for the Southern Region 2015 – 2021 and any subsequent plan, including any targets contained therein. b) Collaborate with the Regional Waste Management Office and other agencies to implement the EU Action Plan for the Circular Economy – Closing the Loop, 2015, its successor the Circular Economy Action Plan: A New Circular Economy Action Plan for a Cleaner More Competitive Europe, 2020 and the Resource Opportunity-Waste Management Policy, DECLG, 2012 and any subsequent plans. c) Promote sustainable patterns of consumption and production in the areas of product design, production processes and waste management. d) Implement the provisions of the Waste Action Plan for a Circular Economy – Ireland's National Waste Policy 2020 - 2025, DECC, 2020 in the assessment of planning applications. e) Protect existing civic amenity sites and bring sites throughout Limerick and support the development of additional sites in accordance with the Southern Regional Waste Management Plan 2015 – 2021 and any subsequent plans. Objective IN O19 Construction and Demolition It is an objective of the Council to: a) Require construction Waste Management Plans to be submitted as part of planning applications, to address waste management on site during construction and mitigation measures to address waste generation, in accordance with the principles of the circular economy and the principles of prevention, renewal and recycle. b) Require a Refurbishment/Demolition Asbestos Survey (RDAS) with full details of disposal of the asbestos to be submitted with any planning application. The RDAS should be carried out in accordance with Section 8 of the Health and Safety Authority, Asbestos Guidelines (Practical Guidelines on ACM Management and Abatement) by a suitable qualified professional with expertise in asbestos disposal. Objective IN O21 Hazardous Waste and Contaminated Sites It is an objective of the Council to: a) Implement the EPA's National Hazardous Waste Management Plan (NHWMP) 2014-2020 and any subsequent plans. b) Collaborate and seek guidance from the Environmental Protection Agency (EPA), the Health and Safety Authority (HAS), Health Service Executive (HSE) and Southern Region Waste Management Office, on the technical requirements for clearance and redevelopment of any contaminated lands when dealing with planning applications at these locations. Development Management Standards, including under 11.8 "Transport and Infrastructure" and 11.10 "Environmental Infrastructure" From Amendment No. 42 of Chapter 8: Infrastructure d) Consider the provision of developer-led and bridging infrastructure at appropriate locations having regard to Circular NSP 01-2026 Developer Led Infrastructure (DLI) Initiative for Wastewater Services to support Housing Delivery and any subsequent revisions where the proposed development is subject to appropriate environmental assessment. Such a solution will only be considered where it is environmentally sustainable and would not affect the quality status of receiving waters. e) Support Uisce Éireann in the upgrade of Limerick Wastewater Treatment Plant, Corcanree pumpstation and the development of the Regional Bioresource Centre, in line with the appropriate and necessary environmental and ecological assessments, as required, to support both the existing and future growth and development of Limerick City into the future and to comply with the National Wastewater Sludge Management Plan.
Cultural Heritage	• Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.	**Limerick Development Plan 2022-2028, as varied** Policy EH P5 Protection of the Built Environment It is a policy of the Council to promote high standards for conserving and restoring the built environment and promote its value in improving living standards and its benefits to the economy. Objective EH O21 Commercial and Industrial Noise It is an objective of the Council to prevent members of the public being significantly adversely effected by environmental noise from commercial and industrial noise activities. Objective EH O22 Entertainment Noise It is an objective of the Council to manage entertainment noise from venues and music events, so as not to have an adverse effect on the public. Objective EH O35 Preservation of the Archaeological Heritage It is an objective of the Council to seek the preservation of all known sites and features of historical and archaeological interest. This is to include all the sites listed in the Record of Monuments and Places as established under Section 12 of the National Monuments (Amendment) Act 1994. The preferred option is preservation in situ, or at a minimum preservation by record. Objective EH O36 Preservation of unrecorded/newly discovered Archaeological Heritage It is an objective of the Council to protect and preserve the preservation in situ (or at a minimum by record) of all sites and features of historical and archaeological interest, discovered subsequent to the publication of the Record of Monuments and Places. Objective EH O38 Protection of the setting of Archaeological Monuments It is an objective of the Council to ensure that no development shall have a negative impact on the character or setting of an archaeological monument.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Mitigating measures including:
		Objective EH O39 Proper procedures during the planning process It is an objective of the Council to: a) Ensure early engagement at preplanning stage in undertaken with the Local Authority Archaeologist to promote the 'preservation in situ' of archaeological remains and settings in development. b) Adopt a policy of archaeological monitoring on developments where the scale and nature of such developments may, in the opinion of the Planning Authority, have a negative impact on previously unknown archaeological features/artefacts. c) Require the preparation of an Archaeological Heritage Assessment in cases where it is deemed that Archaeological Heritage would be affected by a proposed development (due to their location, size or nature). The report shall be prepared by a suitably qualified archaeologist on the archaeological implications, if any, of the proposed development either prior to a decision on a planning application or prior to commencement of development on site. Objective EH O40 Archaeological Monuments in Local Authority ownership/guardianship It is an objective of the Council to preserve and enhance as appropriate and as funding allows monuments vested in the Local Authority. Objective EH O42 Industrial Archaeology It is an objective of the Council to: a) Seek the preservation of buildings and infrastructure associated with former industrial sites; b) Ensure detailed recording of these remains; promote knowledge and interpretation of these sites among the general public; c) Support the work of the Interreg Atlantic Coast Area project, (MMIAH) The recovery and valorisation of Maritime Military and Industrial Heritage. Objective EH O44 Raise public awareness and encourage active participation It is an objective of the Council to generally raise public awareness of the archaeological and historic heritage and to assist and encourage active participation by the public, following consultation with National Monuments Service, in the conservation, consolidation and presentation of landmark sites, where this is appropriate and subject to available resources. Objective EH O45 Heritage Plan 2017-2030 It is an objective of the Council to support the archaeological objectives in the Heritage Plan. Objective EH O46 Increase access to Archaeological Monuments It is an objective of the Council to facilitate public access to National Monuments in State or Local Authority care. Objective EH O48 Work to Protected Structures It is an objective of the Council to: a) Protect structures included on the RPS from any works that would negatively impact their special character and appearance. b) Ensure that any development proposals to Protected Structures, their curtilage and setting, shall have regard to the 'Architectural Heritage Protection Guidelines for Planning Authorities' published by the Department of the Arts, Heritage and the Gaeltacht. c) Ensure that all works are carried out under the supervision of a qualified professional with specialised conservation expertise. d) Ensure that any development, modification, alteration, or extension affecting a Protected Structure and/or its setting, is sensitively sited and designed and is appropriate in terms of the proposed scale, mass, height, density, layout and materials. e) Ensure that the form and structural integrity of the Protected Structure is retained in any redevelopment and that the relationship between the Protected Structure and any complex of adjoining buildings, designed landscape features, or views and vistas from within the grounds of the structure are respected. f) Respect the special interest of the interior, including its plan form, hierarchy of spaces, architectural detail, fixtures and fittings and materials. g) Support the re-introduction of traditional features on protected structures where there is evidence that such features (e.g. window styles, finishes etc.) previously existed. h) Ensure that new and adapted uses are compatible with the character and special interest of the Protected Structure. i) Protect the curtilage of protected structures and to refuse planning permission for inappropriate development within the curtilage and attendant grounds, that would adversely impact on the special character of the Protected Structure. j) Protect and retain important elements of built heritage including historic gardens, stone walls, entrance gates and piers and any other associated curtilage features. k) Ensure historic landscapes and gardens associated with Protected Structures are protected from inappropriate development. Objective EH O49 Energy Efficiency of Protected Structures It is an objective of the Council to have regard to the Department of Environment, Heritage and Local Government's publication on Energy Efficiency in Traditional Buildings (2010) and the Irish Standard IS EN 16883:2017 Conservation of Cultural Heritage – Guidelines for Improving the Energy Performance of Historic Buildings (2017) and any future advisory documents in assessing proposed works on Protected Structures. Objective EH O50 National Inventory of Architectural Heritage (NIAH) It is an objective of the Council to review and update the RPS on foot of any Ministerial recommendations including the NIAH and any future updates. The Ministerial Recommendations, made under Section 53 of the Planning Act, will be taken into account when the Planning Authority is considering proposals for development that would affect the historic or architectural interest of these structures. Objective EH O51 Architectural Conservation Areas a) Protect the character and special interest of an area, which has been designated as an Architectural Conservation Area (ACA) as set out in Volume 3. b) Ensure that all development proposals within an ACA be appropriate to the character of the area having regard to the Character briefs for each area. c) Ensure that any new development or alteration of a building within an ACA or immediately adjoining an ACA, is appropriate in terms of the proposed design, including scale, height, mass, density, building lines and materials. d) Seek a high quality, sensitive design for any new development(s) that are complementary and/or sympathetic to their context and scale, whilst simultaneously encouraging contemporary design which is in harmony with the area. Direction can also be taken from using traditional forms that are then expressed in a contemporary manner, rather than a replica of a historic building style.

Topic	Potentially Significant Adverse Effect, if Unmitigated	Mitigating measures including:
		e) Seek the retention of all features that contribute to the character of an ACA, including boundary walls, railings, soft landscaping, traditional paving and street furniture. f) Seek to safeguard the Georgian heritage of Limerick. Objective EH O52 Shopfronts within an ACA It is an objective of the Council to: a) Ensure that all original and traditional shopfronts, which contribute positively to the appearance and character of a streetscape, within an ACA are retained and restored. b) Ensure that new shopfronts are well designed, through the sympathetic use of scale, proportion and materials. **Variation No. 3 measures** From Amendment No. 31 of Chapter 3 Spatial Strategy Support the sustainable development of Barry's Field for residential purposes and associated community development, including the delivery of high-quality playing pitches. Ensure that any future residential development positively interacts with Carew Park in order to promote permeability, natural surveillance, and a positive interface with the residential and recreational area. All proposals shall give due consideration to the historic landscape character of the site, with regard to the protection of key views and the avoidance of adverse visual impacts on the setting of Southill House. Higher residential densities will be considered at this location in recognition of its strategic location, supporting compact growth and maximising the site's integration with existing and future community and leisure amenities. From Amendment No. 32 of Chapter 3 Spatial Strategy f) A Design Statement shall be prepared demonstrating how Protected Structure RPS 1639 (Hurley's House), including its curtilage and setting, is to be integrated into the overall development, ensuring that the masterplan appropriately responds to and safeguards the building's special interest and setting. From Amendment No. 33 of Chapter 3 Spatial Strategy e) The masterplan shall provide for high-quality public open space and recreational facilities and shall incorporate design measures that integrate with and complement the adjoining lands zoned for Open Space and Recreation, respond sensitively to any archaeological features on site, and deliver a coherent, high-quality environment. Sustainable Urban Drainage Systems (SuDS) shall be fully integrated into the layout and design of the development, contributing to effective surface water management, enhanced biodiversity, climate resilience and placemaking.
Landscape	• Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.	Also refer to measures under Biodiversity and Flora and Fauna and Cultural Heritage. **Limerick Development Plan 2022-2028, as varied** Policy EH P8 Landscape Character Areas It is a policy of the Council to promote the distinctiveness and where necessary safeguard the sensitivity of Limerick's landscape types, through the landscape characterisation process in accordance with the 'Draft Guidelines for Landscape and Landscape Assessment' (2000) as issued by the Department of Environment and Local Government, in accordance with the European Landscape Convention (Florence Convention) and with 'A National Landscape Strategy for Ireland – 2015- 2025'. The Council shall implement any relevant recommendations contained in the Department of Arts, Heritage and the Gaeltacht's National Landscape Strategy for Ireland, 2015 – 2025. LCA 07 Southern Uplands a) Where housing is permitted, encourage appropriate scale and high-quality design for this landscape area, combined with sensitive site location and landscaping. Respect traditional scale particularly on elevated or locally prominent sites. b) Strongly encourage use of landscaping plans, taking into account existing topography and landforms, in efforts to blend developments into the surrounding landscape. Retention of existing landscape features and their integration and use in helping development to blend into the landscape, is of great importance in any upland area. c) Not permit further forestry developments that are subject to planning permissions over 280m above sea level. d) Encourage development within existing settlements. e) This area is open to consideration for wind energy development. f) Where wind farms are permitted, a random spacing with random layout shall be considered in proposed wind farm developments, to limit the visual and landscape impact. LCA O10 Western Uplands (Western Hills/Barnagh Gap/Sugar Hill) a) Where housing is permitted, encourage appropriate scale and high-quality design for this landscape area, combined with sensitive site location and landscaping. Respect traditional scale particularly on elevated or locally prominent sites. b) Discourage the selection of locally prominent sites. c) Encourage the use of local landform and landscape features, combined with sensitive landscaping in order to screen development. d) Ensure that forestry that is subject to planning permission, is confined to below 280m above sea level to protect intact remnants of peatland habitat. e) This area is open to consideration for wind energy development. f) Where wind farm development is permitted, a random spacing layout shall be considered to limit the visual and landscape impact. **Variation No. 3 measures** From Amendment No. 27 of Chapter 3 Spatial Strategy d) Integrate the portion of land zoned Groody Valley Green Wedge into any future residential scheme, ensuring its protection, enhancement, and appropriate incorporation as part of the wider green infrastructure network. f) Ensure that building heights and finishes respect the established character of the surrounding area.

Section 10 Monitoring Measures

10.1 Introduction

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. This section details the measures which will be used in order to monitor the likely significant effects of implementing the Variation. Monitoring will be undertaken as part of reporting on the Development Plan (to which the Variation has been made) monitoring programme.

Monitoring can both demonstrate the positive effects facilitated by the Variation and can enable, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action. Monitoring will enable the early identification of any unforeseen adverse environmental effects arising from implementation of the Variation and will facilitate the timely undertaking of remedial action where required.

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

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. The monitoring measures identified below as part of the Variation SEA are consistent with the measures that were identified by the Limerick Development Plan 2022-2028 SEA. This consistency across the hierarchy of land use plans will improve the efficiency and effectiveness of future monitoring.

Table 10.1 overleaf shows the indicators and targets which have been selected for monitoring the likely significant environmental effects of implementing the Variation, if unmitigated. Monitoring is an ongoing process and the programme allows for flexibility and the further refinement of indicators and targets. The Monitoring Programme may be updated to deal with specific environmental issues – including unforeseen effects – as they arise.

10.3 Sources

The Variation 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, Southern RSES, and Limerick Development Plan is subject to its own SEA (and associated monitoring) requirements. Individual projects will be subject to their own monitoring requirements as relevant.

In implementing the Monitoring Programme, the 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*[53] basis. Where significant adverse effects as a result of the development to be permitted are identified, such effects could be identified, recorded and used to inform monitoring evaluation.

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

10.4 Reporting

Reporting will be undertaken as part of reporting on the Development Plan monitoring programme.

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

The results of monitoring will directly inform future statutory reviews and variations of the Development Plan, ensuring an adaptive and evidence-based approach to environmental management.

The Council is responsible for the ongoing review of indicators and targets, collating existing relevant monitored data, the preparation of monitoring evaluation report(s), the publication of these reports and, if necessary, the carrying out of remedial action.

Table 10.1 Indicators, Targets, Sources and Remedial Action

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action[54]
Biodiversity, Flora and Fauna	**BFF**	• Condition of European sites	• Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions 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, the Limerick Biodiversity Plan 2025-2030 • Confirmation of compliance with Plan provisions relating to the protection of European Sites and sustaining resources	• DHLGH report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive (every 6 years) • DHLGH National Birds Directive Monitoring Report for the under Article 12 (every 6 years) • Internal review of local land use plans, e.g. framework plans. • Internal review of development management / grants of permission	• Where condition of European sites is found to be deteriorating this will be investigated with the Regional Assembly and the DHLGH to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance.
		• 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	• Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions 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, the Limerick Biodiversity Plan 2025-2030	• Internal review of local land use plans, e.g. framework plans.	• Review internal systems
		• SEAs and AAs as relevant for new Council policies, plans, programmes etc. under the Development Plan	• Screen for and/or undertake SEA and AA as relevant for new Council policies, plans, programmes etc. under the Development Plan	• Internal review of preparation of new Council policies, plans, programmes etc. under the Development Plan	• Review internal systems
		• Status of water bodies	• Included under Water below	• Included under Water below	• Included under Water below
		• Compliance of planning permissions with Plan measures providing for the protection of Biodiversity and flora and fauna – see Chapter 6 "Environment, Heritage, Landscape and Green Infrastructure"	• 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 6 "Environment, Heritage, Landscape and Green Infrastructure"	• Internal review of development management / of grants of permission[55]	• Review internal systems
Population and Human Health	**PHH**	• Implementation of Plan measures relating to the promotion of economic growth as provided for by Chapter 5 "A Strong Economy"	• Progress in successfully implementing Plan measures relating to the promotion of economic growth as provided for by Chapter 5 "A Strong Economy"	• Internal review of progress on implementing Plan objectives	• Review internal systems • Consultations with DCEE
		• Number of spatial concentrations of health problems arising from environmental factors resulting from development permitted under the Plan	• No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan	• Review of published information from the Health Service Executive and EPA	• Consultations with the Health Service Executive and EPA

[54] Where remedial action is required, consultations with government agencies (e.g. DCEE, DT, EPA, HSE, NPWS, Regional Assembly, Uisce Éireann) may be undertaken in order to confirm causes of any identified changes in the environment and in order to develop appropriate responses.

[55] Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on Natura 2000 sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action[54]
				• Internal consultations with the Council's Environment Department	
		• Proportion of people reporting regular cycling / walking to school and work above previous CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures • Progress in successfully implementing Plan measures relating to active travel	• CSO data • Internal review of progress on implementing Plan objectives	• Where proportion of population shows increase in private car use above previous CSO figures, the Council will coordinate with the Regional Assembly, the DHLGH, DCEE and NTA to develop a tailored response.
		• Number of spatial plans that include specific green infrastructure mapping	• Require all local level land use plans to include specific green infrastructure mapping	• Internal review of local land use plans, e.g. framework plans.	• Review internal systems
Soil (and Land)	S	• Proportion of population growth occurring on infill and brownfield lands compared to greenfield (also relevant to Material Assets)	• Contribute towards NPF target of maintaining built surface cover nationally to below the EU average of 4% • In accordance with the 'NPF Implementation: Housing Growth Requirements - Guidelines for Planning Authorities July 2025 a target of at least 40% of all new housing to be delivered within the existing built up areas of cities, towns and villages on infill and/or brownfield sites • To map brownfield and infill land parcels	• EPA Geoportal • Compilation of greenfield and brownfield development for the DHLGH • Internal review of development management / grants of permission	• 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.
		• Instances where contaminated material generated from brownfield and infill must be disposed of	• Dispose of contaminated material in compliance with EPA guidance and waste management requirements	• Internal review of development management / grants of permission where contaminated material must be disposed of	• Consultations with the EPA and Development Management
		• Environmental assessments and AAs as relevant for applications for brownfield and infill development prior to planning permission	• Screen for and undertake environmental assessments and AA as relevant for applications for brownfield and infill development prior to planning permission	• Internal review of development management / grants of permission	• Review internal systems
Water	W	• Status of water bodies as reported by the EPA Water Monitoring Programme for the WFD	• Subject to exemptions provided for by Article 4 of the Water Framework Directive, not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status' • Implementation of the objectives of the River Basin Management Plan	• EPA Monitoring Programme for WFD compliance [56]	• Where water bodies are failing to meet at least good status this will be investigated with the DHLGH Water Section, the EPA Catchment Unit, the Regional Assembly and, as relevant, Uisce Éireann to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance. • Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the WWTP to meet Emission Limit Values, the Council will consider whether it is necessary to coordinate a response with the Regional Assembly, EPA and Uisce Éireann to achieve the necessary capacity.
		• Number of incompatible developments permitted within flood risk areas	• Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk	• Internal review of development management / grants of permission	• Where planning applications are being permitted on flood zones, the Council will ensure that such grants are in compliance with the Flood Risk

[56] Including monitoring of water quality and nitrogen deposition due to bioenergy and agricultural projects where available.

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action[54]
					Management Guidelines and include appropriate flood risk mitigation and management measures.
Material Assets	MA	• Programmed delivery of Uisce Éireann infrastructure for all key growth towns in line with Uisce Éireann Investment Plan and prioritisation programme to ensure sustainable growth can be accommodated • Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Plan	• All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan • Where individual on-site wastewater treatment systems are proposed, for planning permission to be only granted when applications demonstrate that the outfall from the individual on-site wastewater treatment system will not – in- combination with other septic tanks – contribute towards any surface or ground water body not meeting the objective of good status under the Water Framework Directive • Facilitate, as appropriate, Uisce Éireann in developing water and wastewater infrastructure • See also targets relating to greenfield and brownfield development of land under Soil	Internal review of development management / grants of permission	• Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the WWTP to meet Emission Limit Values, the Council will consider whether it is necessary to coordinate a response with the Regional Assembly, EPA and Uisce Éireann to achieve the necessary capacity.
		• Proportion of people reporting regular cycling / walking to school and work above previous CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures • Progress in successfully implementing Plan measures relating to active travel	• CSO data • Internal review of progress on implementing Plan objectives	• Where proportion of population shows increase in private car use above previous CSO figures, the Council will coordinate with the Regional Assembly, the DHLGH, DCEE and NTA to develop a tailored response.
Air	A	• Proportion of journeys made by private fossil fuel-based car compared to previous levels • NO_2 (Nitrogen Dioxide), PM10 (particulate matter with diameter of 10 microns or less) and O_3 (Ozone) as part of Ambient Air Quality Monitoring	• Decrease in proportion of journeys made by car compared to previous levels • Improvement in Air Quality trends, particularly in relation to transport related emissions • Progress in successfully implementing Plan measures relating to sustainable mobility and travel	• CSO data • EPA Air Quality Monitoring • Internal review of progress on implementing Plan objectives	• Where proportion of population shows increase in private car use above previous CSO figures, Council will coordinate with the Regional Assembly, DHLGH, DCEE and NTA to develop a tailored response. See also entry under Population and human health above.
Climatic Factors	C	• Implementation of Plan measures relating to climate reduction targets	• For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to climate reduction targets	Internal review of development management / grants of permission	• Review internal systems
		• A competitive, low-carbon, climate-resilient and environmentally sustainable economy	• Contribute towards transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050	• Confirmation of progress in implementing of Limerick City and County Council's Climate Change Adaptation Strategy 2019-2024 and Climate Action Plan 2024-2029 • EPA Greenhouse Gas Emissions reporting • Internal review of implementation of Plan provisions relating to renewable energy in transport,	• Where targets are not achieved, the Council will liaise with the Regional Assembly and the Eastern and Midlands Climate Action Regional Office to establish reasons and develop solutions.
		• Share of renewable energy in transport	• Contribute towards the National Energy and Climate Plan 2021-2030 sectoral target for transport (RES-T) of 14%, by 2030 (this may be increased following a provisional European agreement on 30 March 2023 for a binding overall RES target of at least 42.5% by 2030)		

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action[54]
		• Greenhouse gas emissions	• Contribute towards the target of aggregate reduction in carbon dioxide (CO_2) emissions of at least 51% (compared to 1990 levels) by 2030 (helping to set Ireland on a path to reach net-zero emissions by 2050)	including facilitating the development of electricity charging and transmission infrastructure	
		• Energy consumption, the uptake of renewable options and solid fuels for residential heating	• To promote reduced energy consumption and support the uptake of renewable options and a move away from solid fuels for residential heating		
		• Proportion of journeys made by private fossil fuel-based car compared to previous levels	• Decrease in the proportion of journeys made by residents of Limerick using private fossil fuel-based car compared to previous levels • Progress in successfully implementing Plan measures relating to sustainable mobility and travel	• CSO data • Internal review of progress on implementing Plan objectives	• Where trends toward carbon reduction are not recorded, the Council will liaise with the Regional Assembly and the Eastern and Midlands Climate Action Regional Office to establish reasons and develop solutions.
		• Proportion of people reporting regular cycling / walking to school and work above previous CSO figures	• Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures • Progress in successfully implementing Plan measures relating to active travel	• CSO data • Internal review of progress on implementing Plan objectives	• Where proportion of population shows increase in private car use above previous CSO figures, the Council will coordinate with the Regional Assembly, the DHLGH, DCEE and NTA to develop a tailored response.
Cultural Heritage	CH	• 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	• 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	• Internal review of development management / grants of permission	• Where monitoring reveals visitor or development pressure is causing negative effects on designated archaeological or architectural heritage, the Council will work with the Regional Assembly, Fáilte Ireland and the National Monuments Service and other stakeholders, as relevant, to address pressures through additional mitigation.
		• 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 Protected Structures and Architectural Conservation Areas and their context from significant adverse effects arising from new development granted permission under the Plan	• Internal review of development management / grants of permission	
Landscape	L	• Number of developments permitted that result in avoidable adverse visual impacts on the landscape, especially with regard to landscape designations, resulting from development which is granted permission under the Plan	• No developments permitted which result in avoidable adverse visual impacts on the landscape, especially with regard to landscape designations, resulting from development which is granted permission under the Plan	• Internal review of development management / grants of permission	• 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	Additional information/lower-level objectives, etc.	Relevance to the Variation
European Level			
SEA Directive (2001/42/EC)	• Contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development. • Provide for a high level of protection of the environment by carrying out an environmental assessment of plans and programmes which are likely to have significant effects on the environment.	• Carry out and environmental assessment for plans or programmes referred to in Articles 2 to 4 of the Directive. • Prepare an environmental report which identifies, describes and evaluates the likely significant effects on the environment of implementing the plan or programme and reasonable alternatives that consider the objectives and the geographical scope of the plan or programme. • Consult with relevant authorities, stakeholders and public allowing sufficient time to make a submission. • Consult other Member States where the implementation of a plan or programme is likely to have transboundary environmental effects. • Inform relevant authorities and stakeholders on the decision to implement the plan or programme. • Issue a statement to include requirements detailed in Article 9 of the Directive. • Monitor and mitigate significant environmental effects identified by the assessment.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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.	• Propose and protect sites of importance to habitats, plant and animal species. • Establish a network of European sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, to enable the natural habitat types and the species' habitats concerned to be maintained or, where appropriate, restored at a favourable conservation status in their natural range. • Carry out comprehensive assessment of habitat types and species present. • Establish a system of strict protection for the animal species and plant species listed in Annex IV.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Birds Directive (2009/147/EC)	• Conserve all species of naturally occurring birds in the wild state including their eggs, nests and habitats. • Protect, manage and control these species and comply with regulations relating to their exploitation. • The species included in Annex I shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution.	• Preserve, maintain or re-establish a sufficient diversity and area of habitats for all the species of birds referred to in Annex 1. • Preserve, maintain and establish biotopes and habitats to include the creation of protected areas (Special Protection Areas). • Ensure the upkeep and management in accordance with the ecological needs of habitats inside and outside the protected zones, re-establish destroyed biotopes and creation of biotopes. • Measures for regularly occurring migratory species not listed in Annex I is required as regards their breeding, moulting and wintering areas and staging posts along their migration routes. The protection of wetlands and particularly wetlands of international importance.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

EU Nitrates Directive (91/676/EEC)	It aims to reduce water pollution from nitrates used for agricultural purposes and prevent any further pollution. It forms an integral part of the water framework directive (Directive 2000/60/EC) of the European Union and is closely linked to other EU policies that address air quality, climate change and agriculture.	EU Member States must do the following: • Designate as vulnerable zones all those draining into waters that are or could be affected by high nitrate levels and eutrophication. The designation is reviewed and possibly revised at least every 4 years to take account of any changes that have occurred. • Establish mandatory action programmes for these areas, taking into account available scientific and technical data and overall environmental conditions. • Monitor the effectiveness of the action programmes. • Test the nitrate concentration in fresh ground and surface water at sampling stations, at least monthly and more frequently during flooding. • Carry out a comprehensive monitoring programme and submit – every 4 years – a detailed report on the directive's implementation. The report includes information on nitrate-vulnerable zones, results of water monitoring and a summary of the relevant aspects of codes of good agricultural practices and action programmes. • Draw up a code of good agricultural practices, which farmers apply on a voluntary basis. It sets out various good practices, such as when fertiliser use is inappropriate. • Provide training and information for farmers, where appropriate. The European Commission provides a report every 4 years on the basis of the national information it has received.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Environmental Quality Standards Directive (EQSD) (2008/105/EC)	It sets out environmental quality standards (EQSs) for the presence in surface water of certain substances or groups of substances identified as priority pollutants because of the significant risk they pose to or via the aquatic environment. These standards are in line with the strategy and objectives of the European Union (EU)'s water framework directive (Directive 2000/60/EC). It repeals Directives 82/176/EEC, 83/513/EEC, 84/156/EEC, 84/491/EEC and 86/280/EEC with effect from 22 December 2012.	The directive sets EQSs for priority substances and eight other pollutants. These substances include: the metals cadmium, lead, mercury and nickel, and their compounds; benzene; polyaromatic hydrocarbons; and several pesticides. Several of these priority substances are classed as hazardous. The EQSs in Directive 2008/105/EC are limits on the concentration of the priority substances and eight other pollutants in water (or biota), i.e. thresholds which must not be exceeded if a good chemical status is to be met. There are two types of water standard. A threshold for the average concentration of the substance concerned calculated from measurements over a 1-year period. The purpose of this standard is to ensure protection against long-term exposure to pollutants in the aquatic environment. A maximum allowable concentration of the substance concerned, i.e. the maximum for any single measurement. The purpose of this standard is to ensure protection against short-term exposure, i.e. pollution peaks. The EQSs are different for: • inland surface waters (rivers and lakes); • other surface waters (transitional, coastal and territorial waters). • EU Member States must ensure compliance with the EQSs. They must also take measures to ensure that the concentrations of substances that tend to accumulate in sediment and/or biota do not increase significantly.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Industrial Emissions (Integrated Pollution Prevention and Control) –IED Directive (2010/75/EU)	It is aimed at achieving significant benefits to the environment and human health by reducing harmful industrial emissions across the EU, in particular through better application of Best Available Techniques (BAT). The IED is based on the following principles: • an integrated approach (focusing on the installation being permitted rather than separately on different environmental media such as air, water or soil); • best available techniques; • flexibility; • inspections; • public participation. The IED combines seven separate existing Directives related to industrial emissions: With effect from 7 January 2014: • Directive 78/176/EEC of 20 February 1978 on waste from the titanium dioxide industry; • Directive 82/883/EEC on the surveillance and monitoring of titanium dioxide waste; • Directive 92/112/EEC on the reduction of titanium dioxide industrial waste; • Directive 1999/13/EC on reducing emissions of volatile organic compounds; • Directive 2000/76/EC on waste incineration (Waste Incineration Directive); • Directive 2008/1/EC concerning integrated pollution prevention and control (IPPC Directive); With effect from 1st January 2016: • Directive 2001/80/EC on the limitation of emissions of certain pollutants from large combustion plants (LCP Directive).	• The IED aspires to reduce and, as far as possible, eliminate pollution arising from industrial activities. It seeks to achieve this by providing a general framework for the control of the industries with the highest pollution potential in order to prevent the shifting of pollution from one environmental medium (or industry) to another. The overall intention is to provide an integrated approach to the prevention and control of emissions into the various environmental media such as, air, water and soil while striking a commercial balance for businesses. • The IED aims to increase the effectiveness of the legislation by supporting Member States in implementing BAT-based permitting. The IED aims to improve and clarify the concept and use of BAT and increases transparency by requiring that the use of flexibility must be justified and documented leading to a more coherent and EU-wide application of BAT. • The IED also strengthens existing minimum requirements in certain sectors (such as large combustion plants, waste incineration, etc.) so as to ensure the achievement of objectives of the Commission's Thematic Strategy on Air Pollution. • The IED aims to further increase the effectiveness of the legislation by strengthening provisions on environmental improvement and enforcement, while stimulating innovation. The IED introduces minimum requirements as regards the environmental inspections of installations, the review and update of permits, and reporting on compliance. It also provides incentives for the development and promotion of environment-friendly technologies. • The IED aims to cut all identified unnecessary administrative burdens and simplify current legislation. The IED tackles the shortcomings of current EU legislation on industrial emissions by overhauling the seven existing pieces of legislation on industrial emissions. This has improved the clarity and coherence of the legislation and should reduce the administrative burden through combined requirements on granting permits and streamlined reporting.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

EU Plant Protection (products) Directive 2009/127/EC	The 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.	This Directive is limited to the essential requirements with which machinery for pesticide application must comply before being placed on the market and/or put into service, while the European standardisation organisations are responsible for drawing up harmonised standards providing detailed specifications for the various categories of such machinery in order to enable manufacturers to comply with those 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Renewable Energy Directive (RED) 2023/2413 **- amending Directive (EU) 2018/2001, Regulation (EU) 2018/1999 and Directive 98/70/EC as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652**	The Renewable Energy Directive is the legal framework for the development of clean energy across all sectors of the EU economy, supporting cooperation between EU countries towards this goal. The revised Directive introduces stronger measures to ensure that all possibilities for the further development and uptake of renewables are fully utilised. This will be key to achieving the EU's objective of climate neutrality by 2050 and to strengthen Europe's security of energy supply. In addition to double the existing share of renewable energy sources, a strong policy framework will facilitate electrification in different sectors, with new increased sector-specific targets for renewables in heating and cooling, transport, industry, buildings and district heating/cooling, but also with a framework promoting electric vehicles and smart recharging.	The revised Directive sets an overall renewable energy target of at least 42.5% binding at EU level by 2030 - but aiming for 45%. The amended RED contains revised targets for renewable energy consumption in transport, of 29% energy share (known as the 'RES-T') or a 14.5% GHG reduction by 2030.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Indirect Land Use Change Directive (2012/0288 (COD))	• Article 3(4) of Directive 2009/28/EC of the European Parliament and of the Council (3) requires Member States to ensure that the share of energy from renewable energy sources in all forms of transport in 2020 is at least 10 % of their final energy consumption. • The blending of biofuels is one of the methods available for Member States to meet this target, and is expected to be the main contributor. • Other methods available to meet the target are the reduction of energy consumption, which is imperative because a mandatory percentage target for energy from renewable sources is likely to become increasingly difficult to achieve sustainably if overall demand for energy for transport continues to rise, and the use of electricity from renewable energy sources.	• 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

Alternative Fuel Infrastructure Regulation (AFIR) - **(Regulation (EU) 2023/1804 on the deployment of alternative fuels infrastructure, and repealing Directive 2014/94/EU)**	The regulation sets mandatory national targets for European Union Member States to deploy publicly accessible alternative fuels infrastructure (in particular for electricity and hydrogen) for road vehicles, vessels moored at the quayside and stationary aircraft, with a specific focus on the trans-European networks. The regulation also includes: • common rules for user information, data provision and payment requirements; • a mandate for the Commission to adopt delegated acts to ensure interoperability of infrastructure by mandating technical specifications on the basis of European standards; and • planning and reporting requirements for Member States.	Recharging infrastructure for electric cars and vans: • Member States must ensure that publicly accessible recharging stations are set up in proportion to the number of registered vehicles, as follows: • for each registered electric vehicle, a total power output of at least 1.3 kilowatts (kW); for each registered plug-in hybrid vehicle, a total power output of at least 0.80 kW. • Member States must also ensure the deployment of publicly accessible recharging stations along the trans-European transport network (TEN-T) road network. Recharging infrastructure for electric heavy-duty vehicles: • Member States must ensure a minimum coverage of recharging points for heavy-duty electric vehicles. Hydrogen infrastructure for road vehicles: • By 31 December 2030, Member States must ensure that publicly accessible hydrogen refuelling stations with a total capacity of at least 1 tonne per day are deployed at least every 200 km along the TEN-T core network. At least one refuelling station must be deployed in each urban node. Liquefied methane for road transport: • Until 31 December 2024, Member States must ensure that an appropriate number of publicly accessible refuelling points for liquefied methane are set up, at least along the TEN-T core network, where there is demand, unless the costs are disproportionate to the benefits, including environmental benefits. Electricity supply in maritime ports: • By 31 December 2029, there must be sufficient shoreside electricity for ships moored at the quayside at TEN-T core and TEN-T comprehensive maritime ports to serve at least 90% of all container and passenger vessels above 5,000 gross tonnage. Electricity for stationary aircraft: • By 31 December 2024, all airports of the TEN-T core and comprehensive network must provide electricity to stationary aircraft used for commercial air transport operations at aircraft contact stands, and by 31 December 2029 at all remote stands. Railway infrastructure: • Member States must assess the development of alternative fuel technologies and propulsion systems (including hydrogen and battery power) for rail infrastructure that cannot be fully electrified for technical or cost-efficiency reasons. Payment: • Users of electric and hydrogen vehicles must be able to pay easily at recharging and hydrogen refuelling points (with payment cards and without subscriptions). Prices, including all of their components and specific to the recharging session, must be communicated clearly to end users before the start of a recharging session.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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 distributors or retail energy sales companies have to achieve 1.5% energy savings per year through the implementation of energy efficiency measures • EU countries can opt to achieve the same level of savings through other means, such as improving the efficiency of heating systems, installing double glazed windows or insulating roofs • The public sector in EU countries should purchase energy efficient buildings, products and services • Every year, governments in EU countries must carry out energy efficient renovations on at least 3% (by floor area) of the buildings they own and occupy • Energy consumers should be empowered to better manage consumption. This includes easy and free access to data on consumption through individual metering • National incentives for SMEs to undergo energy audits • Large companies will make audits of their energy consumption to help them identify ways to reduce it • Monitoring efficiency levels in new energy generation capacities.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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: • Classification, labelling and packaging of chemicals; • The Union's Civil Protection Mechanism; • The Security Union Agenda including CBRN-E and Protection of critical infrastructure; • Policy on environmental liability and on the protection of the environment through criminal law; • Safety of offshore oil and gas operations.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

EU Effort Sharing Regulation (ESR) 2018 (as amended in 2023)	The ESR establishes binding annual greenhouse gas emission targets for Member States from 2021 to 2030. It is part of a set of policies and measures to reduce the EU's emissions by at least 55% by 2030, compared to 1990 levels. This is a crucial milestone to deliver the European Green Deal and achieve climate neutrality by 2050. The ESR is also part of the Energy Union strategy and the EU's implementation of the Paris Agreement.	The national targets concern emissions from the following sectors: domestic transport (excluding aviation), buildings, agriculture, small industry, and waste. These sectors account for almost 60% of emissions in the EU. The ESR assigns each Member State with an emission reduction target for 2030, a set of annual emission allocations for each year from 2021 to 2030, and flexibilities to deal with annual fluctuations in greenhouse gas emissions due to weather or economic conditions. The amended legislation increases the emissions reduction target for the targeted sectors including transport, from 29% to 40% by 2030, compared to 2005 levels.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
The Energy Union Strategy (COM/2015/080) (2015) and the EU "Clean energy for all Europeans" package (2019)	The Energy Union Strategy aims at building an energy union that gives EU consumers - households and businesses - secure, sustainable, competitive and affordable energy. Since its launch in 2015, the EC has published several packages of measures and regular progress reports, which monitor the implementation of this key priority, to ensure that the energy union strategy is achieved. The package aims to help to decarbonise EU's energy system in line with the European Green Deal objectives. The ESR transforms the targets of the Clean Energy Package into binding annual climate targets for each Member State for the period 2021–2030. The "Clean energy for all Europeans" package – marked a significant step towards implementing the Energy Union Strategy.	The Energy Union Strategy builds five closely related and mutually reinforcing dimensions: • Security, solidarity and trust - diversifying Europe's sources of energy and ensuring energy security through solidarity and cooperation between EU countries. • A fully integrated internal energy market - enabling the free flow of energy through the EU through adequate infrastructure and without technical or regulatory barriers. • Energy efficiency - improved energy efficiency will reduce dependence on energy imports, lower emissions, and drive jobs and growth. • Climate action, decarbonising the economy - the EU is committed to a quick ratification of the Paris Agreement and to retaining its leadership in the area of renewable energy. • Research, innovation and competitiveness - supporting breakthroughs in low-carbon and clean energy technologies by prioritising research and innovation to drive the energy transition and improve competitiveness. Based on Commission proposals published in 2016, the Clean Energy package consists of 8 new laws. Following political agreement by the EU Council and the European Parliament (finalised in May 2019) and the entry into force of the different EU rules, EU countries have 1-2 years to convert the new directives into national law.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Directive on ambient air quality and cleaner air for Europe 2024/EC **recast: Ambient Air Quality and Cleaner Air for Europe Directive 2008/50/EC and Fourth Daughter Directive 2004/107/EC**	This new directive simplifies EU rules on ambient air quality by merging the two existing EU directives into one. Its goal is to bring quality standards in line with the World Health Organization (WHO) recommendations. The new directive introduces stricter limits on key air pollutants, aligning EU standards more closely with World Health Organization (WHO) guidelines.	Air quality is assessed using common methods and criteria across the EU, and the revised directive brings further improvements to air quality monitoring and modelling. The revised directive will also ensure early action, with air quality roadmaps that need to be prepared ahead of 2030 if there is a risk that the new standards will not be attained by that date. The air quality standards will be reviewed regularly in line with latest scientific evidence to assess whether they continue to be appropriate. The revised directive prioritises the health of EU citizens: it sets new air quality standards for pollutants to be reached by 2030 which are more closely aligned with the WHO air quality guidelines. Those pollutants include, among others, particulate matter PM_{10} and $PM_{2.5}$, nitrogen dioxide and sulphur dioxide, all known to cause respiratory problems. Member states may request that the 2030 deadline be postponed if specific conditions are met.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU (2018) Clean Air Policy Package	Aims to substantially reduce air pollution across the EU.	The proposed strategy sets out objectives for reducing the health and environmental impacts of air pollution by 2030, and contains legislative proposals to implement stricter standards for emissions and air pollution.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Emissions Ceilings (NEC) Directive 2016/2284/EU on the reduction of certain atmospheric pollutants	It aims to reduce the health risks and environmental impact of air pollution by establishing national emission reduction commitments. The Directive also aligns emission reduction commitments under EU law with international commitments (following the revision of the Gothenburg Protocol in 2012). The legislation was proposed as part of the EU's 2013 Clean Air Policy Package, which included a Clean Air Programme for Europe.	The Directive covers 5 air pollutants: • sulphur dioxide; • nitrogen oxides; • non-methane volatile organic compounds; • ammonia; and • fine particulate matter. The Directive sets emission reduction commitments per pollutant for each EU country to be attained by 2020 and 2030. The emission reduction commitments for each pollutant that will apply each year from 2020 to 2029 are the same as those which the EU countries are already committed to under the revised Gothenburg protocol. New stricter reductions have been agreed from 2030 onwards.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

UNECE Convention on Long-range Transboundary Air Pollution (1979)	The first international treaty to deal with air pollution on a broad regional basis. The Convention entered into force in 1983, laying down the general principles of international cooperation for air pollution abatement and setting up an institutional framework which has since brought together research and policy.	The Convention has substantially contributed to the development of international environmental law and has created the essential framework for controlling and reducing the damage to human health and the environment caused by transboundary air pollution.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Directive on arsenic, cadmium, mercury, nickel and PAH in ambient air (2004/107/EC), as amended	Directive 2004/107/EC of the European Parliament and of the Council of 15 December 2004 relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air.	The objective of this Directive is to establish a target value for the concentration of arsenic, cadmium, nickel and benzo(a)pyrene in ambient air so as to avoid, prevent or reduce harmful effects of arsenic, cadmium, nickel and polycyclic aromatic hydrocarbons on human health and the environment as a whole. It determines common methods and criteria for the assessment of concentrations of arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air as well as of the deposition of such substances.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Medium Combustion Plants (MCP) Directive (2015/2193)	Directive (EU) 2015/2193 of the European Parliament and of the Council on the limitation of emissions of certain pollutants into the air from medium combustion plants.	This Directive lays down rules to control emissions of sulphur dioxide (SO_2), nitrogen oxides (NOx) and dust into the air from medium combustion plants, as well as to monitor emissions of carbon monoxide (CO). The aim is to reduce emissions to air and the potential risks to human health and the environment from such emissions. As regards the scope, Article 2 identifies the types of combustion plants to which these rules apply. Emission limits values are set out in 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Energy Efficiency Directive 2023/1791 on energy efficiency and amending Regulation (EU) 2023/955 (recast)	The revised Energy Efficiency Directive significantly raises the EU's ambition on energy efficiency. It establishes 'energy efficiency first' as a fundamental principle of EU energy policy, giving it legal-standing for the first time. The Commission has published a series of recommendations, including guidelines for EU countries related to the revised directive, to help countries transpose its different elements into national law.	The revised Directive: • raises the EU energy efficiency target, making it binding for EU countries to collectively ensure an additional 11.7% reduction in energy consumption by 2030, compared to the projections of the EU reference scenario 2020; • more than doubles the annual energy savings obligation (Article 8) by 2028, this is one of the key policy instruments of the directive to meet the headline target and to drive energy savings in end-use sectors, such as buildings, industry and transport; • puts a stronger focus on alleviating energy poverty, it aims at empowering consumers through stronger requirements for EU countries to raise awareness and provide information on energy efficiency; • it includes improved regulations to identify and remove barriers related to split incentives for energy efficiency renovations between tenants and owners or among multiple owners; • introduces an obligation for the monitoring and reporting of the energy performance of data centres; • expands the scope of energy audit obligations to include all those companies, regardless of their size, which are consuming energy above a certain threshold; • mandates EU countries to report on energy efficiency investments, including energy performance contracts, as part of the Governance Regulation, ensuring transparency and accountability; • establishes project development assistance mechanisms at national, regional, and local levels to support energy efficiency investments and facilitate the attainment of the EU's ambitious energy efficiency targets.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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: o The Drinking Water Abstraction Directive o Sampling Drinking Water Directive o Exchange of Information on Quality of Surface Freshwater Directive o Shellfish Directive o Freshwater Fish Directive o Groundwater (Dangerous Substances) Directive o Dangerous Substances Directive	• Protect, enhance and restore all water bodies and meet the environmental objectives outlined in Article 4 of the Directive. • Achieve "good status" for all waters. • Manage water bodies based on identifying and establishing river basins districts. • Involve the public and streamline legislation. • Prepare and implement a River Basin Management Plan for each river basin districts identified and a Register of Protected Areas. • Establish a programme of monitoring for surface water status, groundwater status and protected areas. • Recover costs for water services.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Drinking Water Directive **- Directive (EU) 2020/2184 of the European Parliament and of the Council of 16 December 2020 on the quality of water intended for human consumption (recast)**	• Protect human health from the adverse effects of any contamination of water intended for human consumption by ensuring that it is wholesome and clean, and to improve access to water intended for human consumption.	For purposes of the Directive, 'water intended for human consumption' means: a) all water, either in its original state or after treatment, intended for drinking, cooking, food preparation or other domestic purposes in both public and private premises, regardless of its origin and whether it is supplied from a distribution network, supplied from a tanker or put into bottles or containers, including spring waters; b) all water used in any food business for the manufacture, processing, preservation or marketing of products or substances intended for human consumption.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

Urban Waste Water Treatment Directive **- Directive (EU) 2024/3019 of the European Parliament and of the Council of 27 November 2024 concerning urban wastewater treatment (recast)**	• Protect the environment and human health from adverse effects of urban wastewater discharges while reducing greenhouse gas emissions and improving energy efficiency in the sector.	The Directive establishes a detailed framework covering: • Requirements for collection and treatment of urban wastewater in agglomerations above 1,000 population equivalent (p.e.) • Standards for secondary, tertiary and new quaternary treatment of wastewater • Extended producer responsibility for pharmaceutical and cosmetic companies to cover costs of removing micropollutants • Energy neutrality targets for treatment plants • Requirements for monitoring, reporting and public access to information	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Water Reuse Regulation (2020/741)	The purpose of this Regulation is to facilitate the uptake of water reuse whenever it is appropriate and cost-efficient, thereby creating an enabling framework for those Member States who wish or need to practise water reuse.	• Regulation (EU) 2020/741 of the European Parliament and of the Council on minimum requirements for water reuse. This Regulation lays down minimum requirements for water quality and monitoring and provisions on risk management, for the safe use of reclaimed water in the context of integrated water 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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	The overall aim of the ELD is to prevent and fully remedy damaged natural resources and their services to the condition that would have existed if no damage had occurred.	• Relates to environmental damage caused by any of the occupational activities listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities; damage to protected species and natural habitats caused by any occupational activities other than those listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities, whenever the operator has been at fault or negligent. • Where environmental damage has not yet occurred but there is an imminent threat of such damage occurring, the operator shall, without delay, take the necessary preventive measures. • Where environmental damage has occurred the operator shall, without delay, inform the competent authority of all relevant aspects of the situation and take all practicable steps to immediately control, contain, remove or otherwise manage the relevant contaminants and/or any other damage factors in order to limit or to prevent further environmental damage and adverse effects on human health or further impairment of services and the necessary remedial measures, in accordance with Article 7. • The operator shall bear the costs for the preventive and remedial actions taken pursuant to this Directive. • The competent authority shall be entitled to initiate cost recovery proceedings against the operator. • The operator may be required to provide financial security guarantees to ensure their responsibilities under the directive are met. • The Environmental Liability Directive has been amended through a number of Directives. Implementation of the Environmental Liability Directive is contributed towards by a Multi-Annual Work Programme (MAWP) 'Making the Environmental Liability Directive more fit for purpose' that is updated annually to changing developments, growing knowledge and new needs.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Sewage Sludge Directive **(Council Directive 86/278/EEC of 12 June 1986 on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture)**	The purpose of this Directive is to regulate the use of sewage sludge in agriculture in such a way as to prevent harmful effects on soil, vegetation, animals and man, thereby encouraging the correct use of such sewage sludge. Member States shall prohibit the use of sludge where the concentration of one or more heavy metals in the soil exceeds the limit values which they lay down in accordance with Annex I A and shall take the necessary steps to ensure that those limit values are not exceeded as a result of the use of sludge. The aims of the Sewage Sludge Directive are • to protect humans, animals, plants and the environment by ensuring that heavy metals in soil and sludge do not exceed set limits • to increase the amount of sewage sludge used in agriculture	The Directive also: • sets limits for the concentration of seven heavy metals in sewage sludge intended for agricultural use and in sludge-treated soils (cadmium, copper, nickel, lead, zinc, mercury, chromium) • bans the use of sewage sludge that results in concentrations of these heavy metals in soil exceeding these limit values	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

Bathing Waters Directive **(Directive 2006/7/EC of the European Parliament and of the Council concerning the management of bathing water quality and repealing Directive 76/160/EEC)**	With a view to preserving, protecting and improving human health and the environment, within the legal framework of Directive 2000/60/EC, the present Directive establishes provisions for: (a) the monitoring and classification of bathing water quality; (b) the management of bathing water quality; and (c) the provision of information to the public on bathing water quality. Member States are required to annually identify all bathing waters and define the length of the bathing season. The EU aims to protect the environment and the health of Europeans by attaining good bathing water quality throughout the EU. More specifically, it aims to: • provide better and earlier information to citizens about the quality of their bathing waters, including logos • move from simple sampling and monitoring of bathing waters to bathing quality management • integrate into other EU measures protecting the quality of all our waters (rivers, lakes, ground waters and coastal waters) through the Water Framework Directive	The Bathing Water Directive requires Member States to monitor and assess bathing water. It ensures timely information is given to the public during the bathing season and requires Member States to disseminate information on bathing water quality actively and promptly. In particular, notices banning or advising against bathing should be rapidly and easily identifiable. The Directive applies to all surface waters that can be used for bathing, except for swimming pools and spa pools, confined waters subject to treatment or used for therapeutic purposes and confined waters artificially separated from surface water and groundwater. Decision establishing a symbol for information to the public on bathing water classification and any bathing prohibition. View the symbols for informing the public on bathing water prohibition, advice against bathing and bathing water classification. The implementation of the Bathing Water Directive is supported by a broad EU framework of water legislation, including the Water Framework Directive, the Environmental Quality Standards Directive, the Groundwater Directive, the Marine Strategy Framework Directive and the Urban Waste Water Treatment Directive.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Sustainable Use of Pesticides Directive (2009/128/EC) **Proposal for a Regulation of the European Parliament and of the Council on the sustainable use of plant protection products and amending Regulation (EU) 2021/2115**	The Sustainable Use of Pesticides Directive (SUD) establishes a framework for European Community action to achieve the sustainable use of pesticides by setting minimum rules to reduce the risks to human health and the environment that are associated with pesticide use. The Directive aims to achieve a sustainable use of pesticides in the EU by reducing the risks and impacts of pesticide use on human health and the environment and promoting the use of Integrated Pest Management (IPM) and of alternative approaches or techniques, such as non-chemical alternatives to pesticides. EU countries have drawn up National Action Plans to implement the range of actions set out in the Directive.	The main actions relate to training of users, advisors and distributors of pesticides, inspection of pesticide application equipment, the prohibition of aerial spraying, limitation of pesticide use in sensitive areas, and information and awareness raising about pesticide risks. EU countries must also promote Integrated Pest Management, for which, general principles are laid down in Annex III to the Directive. The European Commission has adopted a proposal for a new Regulation on the Sustainable Use of Plant Protection Products, including EU wide targets to reduce by 50% the use and risk of chemical pesticides by 2030, in line with the EU's Farm to Fork and Biodiversity strategies. The proposal, adopted on 22 June 2022, is part of a package of measures to reduce the environmental footprint of the EU's food system and help mitigate the economic losses that we are already suffering due to climate change and biodiversity loss. The proposal transforms the existing Directive into a Regulation which will be directly binding and uniformly applicable to all Member States. It overhauls the existing rules on the Sustainable Use of Pesticides (see Directive 2009/128/EC) to bring them in line with the ambitions set in the EU Green Deal, Biodiversity and Farm to Fork strategies. The proposals must be approved by Member States in the Council and the European Parliament, under the normal legislative procedure.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Common Agricultural Policy (CAP) (1962) **CAP 2023-2027**	The CAP is a partnership between society and agriculture that ensures a stable supply of food, safeguards farmers' income, protects the environment and keeps rural areas vibrant. It aims to: • support farmers and improve agricultural productivity, ensuring a stable supply of affordable food; • safeguard European Union farmers to make a reasonable living; • help tackle climate change and the sustainable management of natural resources; • maintain rural areas and landscapes across the EU; • keep the rural economy alive by promoting jobs in farming, agri-food industries and associated sectors.	The CAP 2023-2027 entered into force on 1 January 2023. Support for farmers and rural stakeholders across the 27 EU countries is based on the CAP 2023-2027 legal framework and the choices detailed in the CAP Strategic Plans, approved by the Commission. The approved Plans are designed to make a significant contribution to the ambitions of the European Green Deal, Farm to Fork Strategy and Biodiversity Strategy.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU REACH Regulation (EC 1907/2006), as amended	The purpose of this Regulation is to ensure a high level of protection of human health and the environment, including the promotion of alternative methods for assessment of hazards of substances, as well as the free circulation of substances on the internal market while enhancing competitiveness and innovation.	This Regulation lays down provisions on hazardous substances and mixtures and specification of hazard classes; general obligations of manufacturers, importers and downstream users to classify, label and package the substances and mixtures; identification and examination of available information on substances and mixtures; evaluation of hazard information and decision on classification; establishment of a classification and labelling inventory in the form of a database; and the manufacture, placing on the market and use of chemical substances and preparations, pursuant to the precautionary principle. The Regulation sets forth the framework concerning the registration of such substances and preparations as well as the granting of authorizations. Furthermore, it sets up the European Chemicals Agency for the purposes of managing and carrying out the technical, scientific and administrative aspects of this Regulation. This Regulation sets out eight annexes attached. Annex I sets out the criteria for classification and labelling requirements for hazardous substances and mixtures. Annex II lays down special rules for labelling and packaging of certain classified substances and mixtures.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

UN Sustainable Development Goals	The 2030 Agenda for Sustainable Development provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are 17 Sustainable Development Goals (SDGs), which reflect the need for all countries to urgently act as a global partnership.	Sustainable transport is mainstreamed across several SDGs and targets, especially those related to food security, health, energy, economic growth, infrastructure, and cities and human settlements.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Commission's "Forging a climate-resilient Europe - the new EU Strategy on Adaptation to Climate Change" (2021)	The Strategy sets out how the European Union can adapt to the unavoidable impacts of climate change and become climate resilient by 2050.	The Strategy has four principal objectives: to make adaptation smarter, swifter and more systemic, and to step up international action on adaptation to 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Environment Agency's European Climate Risk Assessment (2024)	This assessment identifies 36 climate risks with potentially severe consequences across Europe.	The risks are evaluated in the contexts of risk severity, policy horizon (lead time and decision horizon), policy readiness and risk ownership. It further identifies priorities for EU policy action, based on a structured risk assessment united with qualitative aspects, such as considering social justice.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
UN Kyoto Protocol (2nd Kyoto Period), the Second European Climate Change Programme (ECCP II), Paris climate conference (COP21) 2015 (Paris Agreement)	The UN Kyoto Protocol set of policy measures to reduce greenhouse gas emissions. The Second European Climate Change Programme (ECCP II) aims to identify and develop all the necessary elements of an EU strategy to implement the Kyoto Protocol. At the Paris climate conference (COP21) in December 2015, 195 countries adopted the first-ever universal, legally binding global climate deal. The agreement sets out a global action plan to put the world on track to avoid dangerous climate change by limiting global warming to well below 2°C and in line with recommendations of the Intergovernmental Panel on Climate Change (IPCC) take steps "to limit the temperature increase to 1.5°C above preindustrial levels".	• The Kyoto Protocol is implemented through the European Climate Change Programme (ECCP II). • EU member states implement measures to improve on or compliment the specified measures and policies arising from the ECCP. Under COP21, governments agreed to come together every 5 years to set more ambitious targets as required by science; report to each other and the public on how well they are doing to implement their targets; track progress towards the long-term goal through a robust transparency and accountability system.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Green Deal (2019) and "Fit for 55" legislation (2021)	The European Green Deal provides a roadmap for making the EU's economy sustainable by turning climate and environmental challenges into opportunities across all policy areas and making the transition just and inclusive for all. The "Fit for 55" legislative package is a central part of the European Green Deal.	The European Green Deal covers all sectors of the economy, notably transport, energy, agriculture, buildings, and industries such as steel, cement, ICT, textiles and chemicals. It outlines investments needed and financing tools available, and explains how to ensure a just and inclusive transition. The 'Fit for 55' package responds to the requirements in the EU Climate Law to reduce Europe's net greenhouse gas emissions by at least 55% by 2030. It was updated when the Commission proposed increased ambition on renewable energy and energy efficiency in the REPowerEU plan to respond to Russia's invasion of Ukraine and boost Europe's energy security. The final legislative package is expected to reduce EU net greenhouse gas emissions by 57% by 2030. For transport, the package is primarily focused on reducing fossil fuel dependency and increasing the availability of, and infrastructure for, renewable alternatives.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

Leaders Pledge for Nature 2020	Political leaders (including Taoiseach Michael Martin) participating in the United Nations Summit on Biodiversity in September 2020, representing 75 countries from all regions and the European Union, have committed to reversing biodiversity loss by 2030.	As part of the UN Decade of Action to achieve sustainable development, the leaders commit to achieve the vision of Living in Harmony with Nature by 2050 by undertaking ten actions, including: • Putting biodiversity, climate, and the environment at the heart of COVID-19 recovery strategies and investments as well as national and international development and cooperation; • Developing and implementing an ambitious and transformational post-2020 global biodiversity framework for adoption at the 15th meeting of the Conference of the Parties (COP 15) to the UN Convention on Biological Diversity (CBD) in Kunming, China, as a key instrument to reach the SDGs; • Raising ambition and aligning domestic climate policies with the Paris Agreement on climate change, with enhanced nationally determined contributions (NDCs) and long-term strategies consistent with the temperature goals of the Paris Agreement, and the objective of net zero greenhouse gas (GHG) emissions by mid-century, and strengthen climate resilience of economies and ecosystems; and • Mainstream biodiversity into relevant sectoral and cross-sectoral policies at all levels, including in food production, agriculture, fisheries and forestry, energy, tourism, infrastructure and extractive industries, and trade and supply chains, as well as into key international agreements and processes.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Biodiversity Strategy for 2030 - Bringing nature back into our lives (European Commission, 2020)	The EU's biodiversity strategy for 2030 is a comprehensive, ambitious and long-term plan to protect nature and reverse the degradation of ecosystems. The strategy aims to put Europe's biodiversity on a path to recovery by 2030, and contains specific actions and commitments. Aims to build resilience to future threats such as the impacts of climate change, forest fires, food insecurity, disease outbreaks and protecting wildlife and fighting illegal wildlife trade.	The Strategy contains specific commitments and actions to be delivered by 2030, including: • Establishing a larger EU-wide network of protected areas on land and at sea; • Launching an EU nature restoration plan; • Introducing measures to enable the necessary transformative stage; and • Introducing measures to tackle the global biodiversity challenge.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
EU Green Infrastructure Strategy (2013)	Aims to create a robust enabling framework in order to promote and facilitate Green Infrastructure (GI) projects.	• Promoting GI in the main EU policy areas. • Supporting EU-level GI projects. • Improving access to finance for GI projects. • Improving information and promoting innovation.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Convention on the Protection of the Archaeological Heritage (Valletta, 1992)	The aim of this (revised) Convention is to protect the archaeological heritage as a source of the European collective memory and as an instrument for historical and scientific study.	The Valletta Convention makes the conservation and enhancement of the archaeological heritage one of the goals of urban and regional planning policies. The Convention sets guidelines for the funding of excavation and research work and publication of research findings. It also deals with public access, in particular to archaeological sites, and educational actions to be undertaken to develop public awareness of the value of the archaeological heritage. 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
ICOMOS (2011) Principles for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes ('Dublin Principles')	It is aimed to assist in the documentation, protection, conservation and appreciation of industrial heritage as part of the heritage of human societies around the World.	• (I) Document and understand industrial heritage structures, sites, areas and landscapes and their values; • (II) Ensure effective protection and conservation of the industrial heritage structures, sites, areas and landscapes; • (III) Conserve and maintain the industrial heritage structures, sites, areas and landscapes; and • (IV) Present and communicate the heritage dimensions and values of industrial structures, sites, areas and landscapes to raise public and corporate awareness, and support training and research.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

Convention of the Protection of the Architectural Heritage of Europe (Granada, 1995)	The main purpose of the Convention is to reinforce and promote policies for the conservation and enhancement of Europe's heritage. It also affirms the need for European solidarity with regard to heritage conservation and is designed to foster practical co-operation among the Parties. It establishes the principles of "European co-ordination of conservation policies" including consultations regarding the thrust of the policies to be implemented.	• The reinforcement and promotion of policies for protecting and enhancing the heritage within the territories of the parties. • The affirmation of European solidarity with regard to the protection of the heritage and the fostering of practical co-operation between states and regions.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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.	• Recognise that rights relating to cultural heritage are inherent in the right to participate in cultural life, as defined in the Universal Declaration of Human Rights. • Recognise individual and collective responsibility towards cultural heritage. • Emphasise that the conservation of cultural heritage and its sustainable use have human development and quality of life as their goal. • Take the necessary steps to apply the provisions of this Convention concerning the role of cultural heritage in the construction of a peaceful and democratic society. • Greater synergy of competencies among all the public, institutional and private actors concerned.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Landscape Convention (Florence, 2000)	The European Landscape Convention introduced a Europe-wide concept centring on the quality of landscape protection, management and planning and covering the entire territory, not just outstanding landscapes. Through its ground-breaking approach and its broader scope, it complements the Council of Europe's and UNESCO's heritage conventions.	• Promote protection, management and planning of landscapes. • Organise European co-operation on landscape issues.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
The Eight Environmental Action Programme (2021–2030)	The 8th Environmental Action Programme (8th EAP) 2021–2030 sets the EU's legally binding environmental policy framework anchored in the European Green Deal. It establishes a long-term vision out to 2050 and specific targets for 2030.	By 2050, the goal is for Europeans to: • "Live well, within planetary boundaries" • Thrive in a well-being economy where nothing is wasted and growth is regenerative • Achieve climate neutrality • Substantially reduce inequalities	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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) (1979)	The convention has three main aims: • to conserve wild flora and fauna and their natural habitats • to promote cooperation between states • to give particular attention to endangered and vulnerable species including endangered and vulnerable migratory species	The Parties under the convention recognise the intrinsic value of nature, which needs to be preserved and passed to future generations, they also: • Seek to ensure the conservation of nature in their countries, paying particular attention to planning and development policies and pollution control. • Look at implementing the Bern Convention in central Eastern Europe and the Caucus. • Take account of the potential impact on natural heritage by other policies. • Promote education and information of the public, ensuring the need to conserve species is understood and acted upon. • Develop an extensive number of species action plans, codes of conducts, and guidelines, at their own initiative or in co-operation with other organisations. • Created the Emerald Network, an ecological network made up of Areas of Special Conservation Interest.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

Bali Road Map (2007)	The Bali Road Map includes the Bali Action Plan, which charts the course for a new negotiating process designed to tackle climate change. The Bali Action Plan is a comprehensive process to enable the full, effective and sustained implementation of the Convention through long-term cooperative action, now, up to and beyond 2012, in order to reach an agreed outcome and adopt a decision.	The Bali Action Plan is divided into five main categories: shared vision, mitigation, adaptation, technology and financing. The shared vision refers to a long-term vision for action on climate change, including a long-term goal for emission reductions.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Doha Climate Gateway (2012)	Set of decisions taken at the COP 18 meeting in Doha in 2012 which pave the way for a new agreement in Paris in 2015.	Among the many decisions taken, governments: • Strengthened their resolve and set out a timetable to adopt a universal climate agreement by 2015, which will come into effect in 2020. • Streamlined the negotiations, completing the work under the Bali Action Plan to concentrate on the new work towards a 2015 agreement under a single negotiating stream in the Ad hoc Working Group on the Durban Platform for Enhanced Action. • Emphasized the need to increase their ambition to cut greenhouse gases and to help vulnerable countries to adapt. • Launched a new commitment period under the Kyoto Protocol, thereby ensuring that this treaty's important legal and accounting models remain in place and underlining the principle that developed countries lead mandated action to cut greenhouse gas emissions. • Made further progress towards establishing the financial and technology support and new institutions to enable clean energy investments and sustainable growth in developing countries.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Stockholm Convention on Persistent Organic Pollutants (POPs) (2001)	The Stockholm Convention on Persistent Organic Pollutants is a global treaty to protect human health and the environment from chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of humans and wildlife, and have harmful impacts on human health or on the environment. The objective of the Stockholm Convention is to protect human health and the environment from persistent organic pollutants.	• Prohibit and/or eliminate the production and use, as well as the import and export, of the intentionally produced POPs that are listed in Annex A to the Convention • Restrict the production and use, as well as the import and export, of the intentionally produced POPs that are listed in Annex B to the Convention • Reduce or eliminate releases from unintentionally produced POPs that are listed in Annex C to the Convention • Ensure that stockpiles and wastes consisting of, containing or contaminated with POPs are managed safely and in an environmentally sound manner • 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	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Ramsar Convention (1971)	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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

OSPAR Convention (1992)	The mission of OSPAR is to conserve marine ecosystems and safeguard human health in the North-East Atlantic by preventing and eliminating pollution; by protecting the marine environment from the adverse effects of human activities; and by contributing to the sustainable use of the seas.	OSPAR's work is organised under six strategies: • Biodiversity and Ecosystem Strategy • Eutrophication Strategy • Hazardous Substances Strategy • Offshore Industry Strategy • Radioactive Substances Strategy • Strategy for the Joint Assessment and Monitoring Programme These six strategies fit together to underpin the ecosystem approach. For each strategy a programme of work is designed and implemented annually.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Level			
The National Planning Framework (first revision 2025) and associated National Development Plan Review (2025)	The National Planning Framework is the Government's high-level strategic plan for shaping the future growth and development of to the year 2040. The new 2025 Framework is revised and updated to take account of changes that have occurred since it was published in 2018 and to build on the framework that is in place. It is a framework to guide public and private investment, to create and promote opportunities for the people, and to protect and enhance the environment. The National Planning Framework and the National Development Plan form a single vision for Ireland under Project Ireland 2040. The implementation of the National Planning Framework will continue to be fully supported by the Government's investment strategy for public capital investment and investment by the State sector in general, with the National Development Plan detailing key projects.	The ambition is to create a single vision, a shared set of goals for every community across the country. These goals are expressed in the Framework as National Strategic Outcomes: 1. Compact Growth 2. Enhanced Regional Accessibility 3. Strengthened Rural Economies and Communities 4. High-Quality International Connectivity 5. Sustainable Mobility 6. A Strong Economy, supported by Enterprise, Innovation and Skills 7. Enhanced Amenities and Heritage 8. Transition to a Carbon Neutral and Climate-Resilient Society 9. Sustainable Management of Environmental Resources 10. Access to Quality Childcare, Education and Health Services	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Planning and Development Act 2000 (as amended)	An Act to consolidate and revise the law relating to planning and development; to provide for proper planning and sustainable development in the interests of the common good; to provide for the licensing of events and control of funfairs; for those purposes to repeal and replace the Planning and Development Act 2000; to amend certain other enactments; and to provide for matters connected therewith.	• Development, with certain exceptions, is subject to development control under the Planning Acts and the local authorities grant or refuse planning permission for development, including ones within protected areas. • There are, however, a range of exemptions from the planning system. Use of land for agriculture, peat extraction and afforestation, subject to certain thresholds, is generally exempt from the requirement to obtain planning permission. • Additionally, Environmental Impact Assessment (EIA) is required for a range of classes and large-scale projects. • Under planning legislation, Development Plans must include mandatory objectives for the conservation of the natural heritage and for the conservation of European sites and any other sites which may be prescribed. There are also discretionary powers to set objectives for the conservation of a variety of other elements of the natural heritage.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Planning and Development Act 2024	An Act to consolidate and revise the law relating to planning and development; to provide for proper planning and sustainable development in the interests of the common good; to provide for the licensing of events and control of funfairs; for those purposes to repeal and replace the Planning and Development Act 2000 and amend certain other enactments; for purposes unrelated to the foregoing, to amend the Residential Tenancies Act 2004, the Residential Tenancies (Amendment) Act 2019, the Land Development Agency Act 2021 and the National Asset Management Agency Act 2009; and to provide for matters connected therewith.	Key reforms included in the Act: • The introduction of statutory timelines for all consenting processes, to give confidence and certainty to applicants; • A significant reorganisation of An Bord Pleanála, to be known as An Coimisiún Pleanála; • Greater mandatory alignment of all tiers of planning, improving consistency; • Improvements to the planning judicial review processes; • Clearer, more consistent policies and guidance; • Longer term, more strategic, ten-year plans for Local Authorities; • More agile local implementation, through the introduction of Urban and Priority Area Plans, including new bespoke plans for Gaeltacht and Island communities; • Creation of Urban Development Zones, which will facilitate a more plan-led approach to development, increasing certainty at the master-planning stage; • Provisions to deter abuse of planning processes through spurious planning submissions and appeals, as well as a ban on requesting payment for not opposing development and; • Ability to suspend the duration of a permission while subject to judicial review proceedings, so as not to lose any time available for completing the development. • 'Replacement of Ministerial Guidelines with National Planning Statements'	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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	The purpose of these Regulations is to transpose into Irish law Directive 2001/42/EC of 27 June 2001 (O.J. No. L 197, 21 July 2001) on the assessment of the effects of certain plans and programmes on the environment — commonly known as the Strategic Environmental Assessment (SEA) Directive.	• The Regulations cover plans and programmes in all of the sectors listed in article 3(2) of the Directive except land-use planning. • These Regulations also amend certain provisions of the Planning and Development Act 2000 to provide the statutory basis for the transposition of the Directive in respect of land-use planning. • Transposition in respect of the land-use planning sector is contained in the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004).	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
S.I. No. 456 of 2025, the European Union (Land Use Planning – Strategic Environmental Assessment) Regulations 2025	S.I. No. 456 of 2025, the European Union (Land Use Planning – Strategic Environmental Assessment) Regulations 2025, came into effect on 2 October 2025 to update SEA requirements for land-use plans. These regulations replace S.I. No. 436 of 2004, mandating environmental assessments for regional strategies, development plans, and certain planning schemes to ensure environmental protection.	These Regulations detail requirements for SEA, including the determination of need for assessment, the assessment process itself, the content and scoping of environmental reports, consultation procedures, handling transboundary effects, decision-making processes, information disclosure, monitoring and joint or coordinated assessments. Further explanation of the Regulations can be found in the attached Appendix. The Regulations include a new provision (Regulation 14) to allow for the carrying out of joint or coordinated assessments where both a SEA and an Appropriate Assessment 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011), as amended	These Regulations provide a new for the implementation in Ireland of Council Directive 92/43/EEC on habitats and protection of wild fauna and flora (as amended) and for the implementation of Directive 2009/147/EC of the European Parliament and of the Council on the protection of wild birds.	• They provide, among other things, for: the appointment and functions of authorized officers; identification, classification and other procedures relative to the designation of Community sites. • The Regulations have been prepared to address several judgments of the CJEU against Ireland, notably cases C-418/04 and C-183/05, in respect of failure to transpose elements of the Birds Directive and the Habitats Directive into Irish law.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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. • Set out the duties of public authorities in respect of the sub-basin management plans and programmes of measure.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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	To amend the European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010) to make further provision to implement Commission Directive 2014/80/EU of 20 June 2014 amending Annex II to Directive 2006/118/EC of the European Parliament and of the Council on the protection of groundwater against pollution and deterioration.	The substances and threshold values set out in Schedule 5 to S.I. No. 9 of 2010 have been reviewed and amended where necessary, based on existing monitoring information and international guidelines on appropriate threshold values. • Part A of Schedule 6 has been amended to include changes to the rules governing the determination of background levels for the purposes of establishing threshold values for groundwater pollutants and indicators of pollution. • Part B of Schedule 6 has been amended to include nitrites and phosphorus (total) / phosphates among the minimum list of pollutants and their indicators which the Environmental Protection Agency (EPA) must consider when establishing threshold values. • Part C of Schedule 6 amends the information to be provided to the Minister by the EPA with regard to the pollutants and their indicators for which threshold values have been established.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

European Communities (Water Policy) Regulations of 2003 (S.I. 722 of 2003) **European Communities (Water Policy) Regulations of 2003 (S.I. 350 of 2014)** **European Communities Environmental Objectives (Surface waters) Regulations of 2009 (S.I. 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.	• Implements River basin districts and characterisation of RBDs and River Basin Management Plans. • Requires the public to be informed and consulted on the Plan and for progress reports to be published on RBDs. • Implements a Register of protected areas, Classification systems and Monitoring programmes for water bodies. • Allows the competent authority to recover the cost of damage/destruction of status of water body. • Outlines environmental objectives and programme of measures and environmental quality standards for priority substances. • Outlines criteria for assessment of groundwater. • Outlines environmental objectives to be achieved for surface water bodies. • Outlines surface water quality standards. • Establishes threshold values for the classification and protection of surface waters against pollution and deterioration in quality.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Water Services Act 2007 (No. 30 of 2007) **Water Services Act 2013 (No. 6 of 2013)** **Water Services (No. 2) Act 2013 (No. 50 of 2013)** **Water Services Act 2017 (No. 29 of 2017)** **Water Services (Amendment) Act 2022 (No. 39 of 2022)**	• 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. Uisce Éireann 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.	Key strategic objectives include: • Ensuring Uisce Éireann delivers infrastructural projects that meet key public health, environmental and economic objectives in the water services sector. • Ensuring the provision of adequate water and sewerage services in the gateways and hubs listed in the National Spatial Strategy, and in other locations where services need to be enhanced. • Ensuring good quality drinking water is available to all consumers of public and group water supplies, in compliance with national and EU drinking water standards • Ensuring the provision of the remaining infrastructure needed to provide secondary waste water treatment, for compliance with the requirements of the EU Urban Waste water Treatment Directive.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Water Services Strategic Plan 2050	The Water Services Strategic Plan 2050 (WSSP 2050) is Uisce Èireann's long-term strategic plan which is required to be prepared under the Water Services No. 2 Act 2013.	The Plan sets out Uisce Èireann's objectives and the means by which Uisce Èireann aims to achieve them in the context of the significant challenges Uisce Èireann are likely to face over the next 25 years. The plan outlines Uisce Èireann's strategic direction and the actions Uisce Èireann will implement to ensure sustainable public water services for Ireland. Once approved, it will replace Uisce Èireann's existing WSSP from 2015, which covered the period from 2015 to 2040.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Ireland's Forest Strategy 2023-2030 and associated Implementation Plan including the National Forestry Programme 2023-2027	The Implementation Plan will facilitate the initial steps in the implementation of the Strategy on the road to achieving the Shared Vision for 2050. The Implementation Plan includes the new Forestry Programme (2023 – 2027), which will be the primary implementation mechanism for the Forest Strategy. The Plan also includes a list of actions that will be funded and enabled by mechanisms outside of the Forestry Programme.	The Forestry Programme 2023-2027 was created in alignment with Ireland's Forest Strategy and is designed to provide lasting benefits for many key areas including climate change, biodiversity, wood production, and employment alongside enhancing societal benefits. The Forestry Programme will provide incentives for farmers and other landowners and will provide farm families with the opportunity to increase and diversify their income streams.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

Water Action Plan 2024: River Basin Management Plan for Ireland 2022-2027 (3rd Cycle) (2024)	The Water Action Plan 2024 is Ireland's third River Basin Management Plan and it outlines the measures the Government and other sectors are taking to improve water quality in Ireland's groundwater, rivers, lakes, estuarine and coastal waters, and provide sustainable management of our water resources (as specified under SDG 6). This Water Action Plan enhances and builds upon the work of the first and second-cycle plans. Where necessary, this plan addresses the shortcomings experienced during the implementation of previous plans.	The responses to shortcomings addressed include, for example, strengthen the incorporation of the integrated catchment management approach, improving the environmental ambition, improving the evidence base for 'targeting the right measures in the right place' and securing dedicated resources to deliver these, increasing environmental enforcement and compliance, and strengthening the governance structures.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Ireland's National Water Quality Monitoring Programme 2022-2027	The main purpose of Ireland's National Water Quality Monitoring Programme 2022-2027 is to provide a comprehensive national overview of the ecological and chemical status of surface waters and the quantitative and chemical status of groundwaters. The information is used to track progress towards the achievement of the environmental objectives required by the Water Framework Directive, and those set out in the River Basin Management Plan.	The programme is comprised of 2,899 surface and groundwater bodies representing 60% of the total number of national water bodies, covering 2,429 river water bodies, 224 lakes, 80 transitional water bodies, 45 coastal waters, 16 canals and 121 groundwater bodies. The programme is operated by the Environmental Protection Agency, Marine Institute, Inland Fisheries Ireland, Waterways Ireland, National Parks and Wildlife Service and Local 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Water Resources Plan (NWRP) – Framework Plan (2021)	The NWRP is a plan on how to provide a safe, secure and reliable water supply to customers for the next 25 years, without causing adverse impact on the environment. The objective of the NWRP is to set out how we intend to maintain the supply and demand for drinking water over the short, medium and long term whilst minimising the impact on the environment. The preparation of the plan has been divided into two distinct phases, the combination of which will become the final NWRP. Phase 1 was carried out in 2021 and the NWRP Framework has been adopted. In Phase 2 of the NWRP, Uisce Éireann summarised the needs across the 539 individual water supplies and identified the solutions to address these needs. Due to the large number of supplies in Ireland, Phase 2 was delivered as four Regional Water Resources Plans: • Regional Water Resources Plan: North West (RWRP NW) • Regional Water Resources Plan: South West (RWRP SW) • Regional Water Resources Plan: South East (RWRP SE) • Regional Water Resources Plan: Eastern and Midlands (RWRP EM)	The key objectives are to: • Identify areas where there are current and future potential water supply shortfalls, taking into account normal and extreme weather conditions • Assess the current and future water demand from homes, businesses, farms, and industry • Consider the impacts of climate change on Ireland's water resources • Develop a drought plan advising measures to be taken before and during drought events • Develop a plan detailing how we deal with the material that is produced as a result of treating drinking water • Assess the water resources available at a national level including lakes, rivers and groundwater	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Strategic Plan for Sustainable Aquaculture Development 2030	The national plans are intended to inform investment priorities for aquaculture under Member States' operational programmes under the European Maritime, Fisheries and Aquaculture Fund. They are also intended to identify measures to reduce the administrative burden on operators, to secure sustainable development and growth of aquaculture through coordinated spatial planning, to enhance the competitiveness of the aquaculture sector and to promote a level playing field for EU operators by exploiting their competitive advantages. Ireland's National Strategic Plan for Sustainable Aquaculture Development was finalised following public consultation earlier in 2022. The Plan was adopted by the European Commission in 2022.	The National Strategic Plan for Sustainable Aquaculture Development proposes 58 actions to be implemented over the period up to 2030.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Aquaculture Acts 1997 to 2006 **(Sea-Fisheries and Maritime Jurisdiction Act 2006 (8/2006), s. 1(3))** **Fisheries (Amendment) Act 1997 (23/1997)** **Fisheries and Foreshore (Amendment) Act 1998 (54/1998), ss. 2, 3 and 4** **Fisheries (Amendment) Act 2001 (40/2001)** **Sea-Fisheries and Maritime Jurisdiction Act 2006 (8/2006)**	The Aquaculture and Foreshore Management Division ensures the efficient and effective management of Aquaculture licensing and Foreshore licensing in respect of Aquaculture and Sea Fishery related activities.	The Strategic Objectives of the Aquaculture and Foreshore Management Division are: • to develop and manage an efficient and effective regulatory framework in respect of Aquaculture licensing and Foreshore licensing of Aquaculture and Sea Fishery related activities; • to secure a fair financial return from the State's foreshore estate in the context of Aquaculture licensing and Foreshore licensing in respect of Aquaculture and Sea Fishery related activities; • to progressively reduce arrears in the clearing of licence applications.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

Foreshore Acts 1933 to 2011	The Foreshore Acts require that a lease or licence must be obtained from the Minister for Housing, Planning and Local Government for the carrying out of works or placing structures or material on, or for the occupation of or removal of material from, State-owned foreshore, which represents the greater part of the foreshore. Construction of permanent structures on privately owned foreshore also required the prior permission of the Minister under the Foreshore Act.	Developments on the foreshore require planning permission in addition to a Foreshore Lease/Licence/Permission. All Foreshore Leases, Licences Permissions are without prejudice to the powers of the local planning authority. Applicants should, therefore, consult initially with the local planning authority regarding their proposal. In the case of developments on foreshore for, by or on behalf of a Local Authority where an EIS is required, applications should be made to An Bord Pleanála under Part XV, Planning and Development Act 2000.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Marine Planning Framework (NMPF) (2024)	The NMPF details how marine activities will interact with each other in an ocean space that is under increasing spatial pressure, ensuring the sustainable use of Ireland's marine resources to 2040. The NMPF has been prepared with an ecosystem-based approach and informed by best available knowledge.	The National Marine Planning Framework (NMPF) brings together all marine-based human activities for the first time, outlining the Government's vision, objectives and marine planning policies for each marine activity. The NMPF is intended as the marine equivalent to the National Planning Framework. This approach will enable the Government to: • set a clear direction for managing our seas • clarify objectives and priorities • direct decision makers, users and stakeholders towards strategic, plan-led, and efficient use of our marine resources	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Seafood Development Programme 2021-2027	Based on the challenges identified for the seafood sector and coastal communities and the policy context, Ireland's Programme requires an ambitious vision to: "To support a resilient, climate smart, environmentally sustainable and profitable Irish seafood sector in order to maximise its contribution to jobs and growth and maintain the economic and social activities of our most vibrant and sustainable coastal communities"	The Programme details the vision and key missions to be achieved by the implementation of the programme. It also demonstrates how the strategic objectives of the EMFAF fund (specified in Regulation (EU) 2021/1139) will be employed in fulfilling the Programme.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Harnessing Our Ocean Wealth: An Integrated Marine Plan for Ireland 2012	Harnessing Our Ocean Wealth is an Integrated Marine Plan (IMP), setting out a roadmap for the Government's vision, high-level goals and integrated actions across policy, governance and business to enable our marine potential to be realised. Implementation of this Plan will see Ireland evolve an integrated system of policy and programme planning for our marine affairs.	• Sustainable economic growth of marine/ maritime sectors; • Increase the contribution to the national GDP; • Deliver a business friendly yet robust governance, policy and planning framework; • Protect and conserve our rich marine biodiversity and ecosystems; • Manage our living and non-living resources in harmony with the ecosystem; • Implement and comply with environmental legislation; • Building on our maritime heritage, strengthen our maritime identity; • Increase our awareness of the value, opportunities and societal benefits; and • Engagement and participation by all.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

National Raised Bog Special Areas of Conservation Management Plan 2017 – 2022 and a Review of Raised Bog Natural Heritage Area Network	The National Raised Bog Special Areas of Conservation Management Plan 2017 - 2022 sets out a roadmap for the long-term management, restoration and conservation of protected raised bogs in Ireland.	The Plan is part of the measures being implemented in response to the on-going infringement action against Ireland in relation to the implementation of the EU Habitats Directive, with regard to the regulation of turf cutting on the Special Areas of Conservation and on foot of the recommendation of Mr. Justice Quirke that a National Raised Bog SAC Management Plan be drawn up, arising from the Peatlands Forum (2012).	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Peatlands Strategy (2015-2025)	This Strategy aims to provide a long-term framework within which all of the peatlands within the State can be managed responsibly in order to optimise their social, environmental and economic contribution to the well-being of this and future generations.	Objectives of the Strategy: • To give direction to Ireland's approach to peatland management. • To apply to all peatlands, including peat soils. • To ensure that the relevant State authorities and state-owned companies that influence such decisions contribute to meeting cross-cutting objectives and obligations in their policies and actions. • To ensure that Ireland's peatlands are sustainably managed so that their benefits can be enjoyed responsible. • To inform appropriate regulatory systems to facilitate good decision making in support of responsible use. • To inform the provision of appropriate incentives, financial supports and disincentives where required.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Union (Good Agricultural Practice for Protection of Waters) Regulations 2022 (S.I. No. 113/2022)	The purpose of these Regulations is to give effect to Ireland's Nitrates Action Programme pursuant to Council Directive 91/676/EEC concerning the protection of waters against pollution caused by nitrates from agricultural source.	Part 2 concerns farmyard management. The Part requires an occupier of a holding shall take all such steps, as far as is practicable for the purposes of minimising the amount of soiled water produced on the holding; livestock manure and other organic fertilisers, soiled water and effluents from dungsteads, farmyard manure pits, silage pits or silage clamps arising or produced in a building or yard on a holding shall, prior to its application to land or other treatment, be collected and held in a manner that prevents the run-off or seepage, directly or indirectly, into groundwaters or surface waters of such substances. The Regulations provides for general obligations related to capacity of storage facilities and then distinguishes among requirements for storage facilities of: effluents and soiled water; pig manure; poultry manure; manure from deer, goats and sheep; manure from cattle. Part 3 concerns nutrient management. Part 4 is focused on the prevention of water pollution from fertilizers and certain activities; this includes the distances from a water body and other issues requirements as to manner of application of fertilizers, soiled water etc; periods when application of fertilizers is prohibited; limits on the amount of livestock manure to be applied. Part 5 regulates general duty of occupier, such as keeping of records, etc. Offences and related matters. Part 6 is functions of the public authorities: certificates, exemptions, etc.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
European Union (Birds and Natural Habitats) (Sea-Fisheries) (Amendment) Regulations 2014 (S.I. 565 of 2014)	These Regulations the European Union (Birds and Natural Habitats) (Sea-fisheries) Regulations 2013 so as to apply them to the regulation of sea-fishing activity in so far as the regulation of that activity is necessary to secure compliance with the European Communities (Birds and Natural Habitats) Regulations 2011 and the objectives of the Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora.	• Regulation 3 provides for the submission of a Fisheries Natura Plan in relation to planned fisheries; • Regulation 4 provides for a screening of a Fisheries Natura Plan to determine whether or not an appropriate assessment is required; • Regulation 5 provides for an appropriate assessment of a Fisheries Natura Plan and also provides for public and statutory consultation; • Regulation 6 provides for the Minister to make a determination to adopt a Fisheries Natura Plan. The Minister may amend, withdraw or revoke a plan; • Regulation 7 provides for publication of the adopted Fisheries Natura Plan; • Regulation 8 provides for a Risk Assessment of unplanned fisheries and also provides for public and statutory consultation on the assessment; • Regulation 9 provides for the issue of a Natura Declaration to prohibit, restrict including restricting by permit, control, etc. of sea fishing activities; • Regulation 10 provides for Natura Permits to be issued where required by Natura Declarations; and • Regulations 11 to 31 deal with functions of authorised officers and related matters, offences, etc.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

Wildlife Act of 1976 **Wildlife (Amendment) Act, 2000** **Wildlife (Amendment) Act, 2023**	The act provides protection and conservation of wild flora and fauna. The Wildlife (Amendment) Act 2023 introduced a new public sector duty on biodiversity. The legislation provides that every public body, as listed in the Act, is obliged to have regard to the objectives and targets in the National Biodiversity Action Plan.	• Provides protection for certain species, their habitats and important ecosystems • Give statutory protection to NHAs • Enhances wildlife species and their habitats • Includes more species for protection	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Ireland's 4th National Biodiversity Action Plan 2023-2030	Ireland's 4th National Biodiversity Action Plan sets the national biodiversity agenda for the period 2023-2030 and aims to deliver the transformative changes required to the ways in which we value and protect nature.	This National Biodiversity Action Plan 2023-2030 builds upon the achievements of the previous Plan. It will continue to implement actions within the framework of five strategic objectives, while addressing new and emerging issues: Objective 1 - Adopt a Whole of Government, Whole of Society Approach to Biodiversity Objective 2 - Meet Urgent Conservation and Restoration Needs Objective 3 - Secure Nature's Contribution to People Objective 4 - Enhance the Evidence Base for Action on Biodiversity Objective 5 - Strengthen Ireland's Contribution to International Biodiversity	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
All Ireland Pollinator Plan 2021-2025	The All-Ireland Pollinator Plan is an island-wide attempt to reverse declines in pollinating insects to ensure the sustainability of our food, avoid additional economic impacts on agriculture, and protect the health of the environment. The main objectives include: • Making farmland, public land and private land in Ireland pollinator friendly; • Raising awareness of pollinators and how to protect them; • Managed pollinators – supporting beekeepers and growers; • Expanding our knowledge of pollinators and pollination service; and • Collecting evidence to track change and measure success.	This voluntary Plan identified 81 actions, shared out between over 100 governmental and non-governmental organisations. A large focus of the Plan is to identify actions to improve the quality and amount of flower-rich habitat. Actions range from creating pollinator highways along our transport routes, to supporting pollinators on farmland, in gardens, businesses, and on public land.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Climate Action and Low Carbon Development Act 2015 (as amended)	An Act to provide for the approval of plans by the Government in relation to climate change for the purpose of pursuing the transition to a low carbon, climate resilient and environmentally sustainable economy.	When considering a plan or framework, for approval, the Government shall endeavour to achieve the national transition objective within the period to which the objective relates and shall, in endeavouring to achieve that objective, ensure that such objective is achieved by the implementation of measures that are cost effective and shall, for that purpose, have regard to: • The ultimate objective specified in Article 2 of the United Nations Framework Convention on Climate Change done at New York on 9 May 1992 and any mitigation commitment entered into by the European Union in response or otherwise in relation to that objective, • The policy of the Government on climate change, • Climate justice, • Any existing obligation of the State under the law of the European Union or any • international agreement referred to in section 2; and • The most recent national greenhouse gas emissions inventory and projection of future greenhouse gas emissions, prepared by the Agency.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Climate Action Plans	The National Climate Action Plan 2023 provided 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 Climate Action Plan 2024 builds upon the 2023 Plan by refining and updating the measures and actions required to deliver the carbon budgets and sectoral emissions ceilings. The Climate Action Plan 2025 is the third statutory annual update to the Climate Action Plan.	The Climate Action Plans list the actions needed to deliver on Ireland's climate targets and sets indicative ranges of emissions reductions for each sector of the economy. It will be updated periodically to ensure alignment with Ireland's legally binding economy-wide carbon budgets and sectoral ceilings. Climate Action Plan 2025 lays out a roadmap of actions that are intended to lead to meeting the national climate objective of pursuing and achieving, by no later than the end of the year 2050, the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy. It aligns with legally binding economy-wide carbon budgets and sectoral emissions ceilings. Climate Action Plan 2025 builds upon the Climate Action Plan 2024 by refining and updating the measures and actions required to deliver the carbon budgets and sectoral emissions ceilings and it should be read in conjunction with Climate Action Plan 2024. The Plan provides a roadmap for taking decisive action to halve Ireland's emissions by 2030 and achieve climate neutrality by no later than 2050, as committed to in the Climate Action and Low Carbon Development (Amendment) Act 2021.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

National Adaptation Framework (NAF) 2024 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Climate Adaptation Sectoral Adaptation Plans	The Climate Act sets out the requirements for the preparation of Sectoral Adaptation Plans. The 12 priority sectors identified in the 2018 NAF were grouped into 9 such Plans and clustered into four themes covering natural and cultural capital, critical infrastructure, water resource and flood risk management, and public health. This approach aims to provide a structured and systematic approach to sectoral developments.	To support key national sectors in planning for climate change adaptation and according to the requirements of the National Adaptation Framework (2018), sectoral planning guidelines were developed as part of the Irish Climate Information Platform, Climate Ireland project . The guidelines aim to ensure that a coherent and consistent approach to adaptation planning is adopted at national and local levels. Since the guidelines' publication in May 2018, they have been successfully implemented by relevant Departments to develop Sectoral Adaptation Plans.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Sustainable Mobility Policy (SMP) (2022)	It sets out a strategic framework to 2030 for active travel (walking and cycling) and public transport journeys to help Ireland meet its climate obligations. It is framed around three key principles that will guide the delivery of sustainable mobility policy over the coming decade. They are: • Safe and green mobility; • People focussed mobility; and • Better integrated mobility.	The SMP includes an Action Plan covering the period 2022-2025 with 91 actions, supporting behavioural change across a wide range of interventions including, among other things, public transport infrastructure and services, active travel promotion and supports, road safety initiatives, legislative measures, research, and public engagement. The Policy also supports the implementation of large-scale transport projects including MetroLink and DART+ in Dublin, BusConnects in the five cities, the Connecting Ireland scheme in rural areas, and an Active Travel Infrastructure Programme providing high-quality cycling infrastructure across the country.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Electric Vehicle Charging Infrastructure Strategy 2022-2025 and associated implementation plan	It sets out a pathway for the delivery of EV charge point infrastructure, including the rollout of EV infrastructure as required under the EU's Alternative Fuels Infrastructure Regulation (AFIR), where a 300% increase in the amount of public recharging infrastructure is targeted for delivery.	The strategy takes a people-first approach, focusing on the different transport needs across the country and is being informed by the piloting of different technologies and charging options in Ireland. An Implementation Plan has also been developed in conjunction with the strategy to provide an initial set of actions and deliverables to support the strategy's delivery. This includes the development the National Road Network EV Charging Plan and the Regional and Local EV Charging Network Plan.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

Renewable Transport Fuel Policy 2025-2027	The Renewable Transport Fuel Policy 2025-2027 sets out a pathway for achievement of Climate Action Plan biofuel targets as well as delivery of the targets and requirements for renewable energy share in transport under the European Union Renewable Energy Directive, including EU requirements for sustainability certification and greenhouse gas reduction.	The Department updates the policy every two years to ensure it remains agile and responsive to market trends and other variables impacting on the achievement of the objectives set out. The latest iteration of the policy explores potential for further deployment of renewable fuels for all transport modes, incentivises increased supply of advanced biofuels and renewable fuels of non-biological origin, and seeks to strengthen sustainability assurance mechanisms within EU frameworks and continue to ensure policy is grounded on latest research and market developments. The policy contains 19 actions aimed at delivering on the objectives set out over the next two years.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Energy Security Framework (2022)	National Energy Security Framework provides an overarching and comprehensive response to Ireland's energy security needs in the context of the war in Ukraine. The Framework outlines the structures which are in place within Government to monitor and manage our energy supplies. It sets out the plans which are in place to deal with energy security emergencies should they arise, and outlines out how these plans will be tested in light of the war in Ukraine.	The Framework sets out the government's action in response to these issues across three key themes: - managing the impact on consumers and businesses, with a specific focus on financially vulnerable residential consumers in the short-term - ensuring security of energy supply in the near term, with a focus on the period up to and including winter 2022/23 - reducing our dependency on imported fossil fuels, in the context of the phasing out of Russian energy imports across the EU	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Ireland's National Energy and Climate Plan (NECP) 2021-2030 (updated 2024)	National Energy and Climate Plans are the framework within which EU Member States must notify their climate and energy objectives, targets, policies, and measures to the European Commission and were established under Regulation (EU) 2018/1999 of the European Parliament and of the Council on the Governance of the Energy Union and Climate Action. Member States are required to develop NECPs on a ten-year rolling basis. The aim of the plans is to outline our energy and climate policies in detail for the period from 2021 to 2030 and provide projections and ambitions towards 2050. Under the Regulation, Member States are also required to update their initial plans after 5 years, this is the first update of the initial NECP which was published in 2019. The NECP covers five dimensions of the Energy Union: - Decarbonisation - Energy Efficiency - Energy Security - Internal Energy Market - Research, Innovation and Competitiveness The NECP brings together the policies, targets, tools and associated material relating to our climate and energy obligations under various EU Regulations and Directives from across government bodies and departments into one document. It reflects our ambitions and provides certainty to investors and policymakers that we are committed to EU-wide targets and ambitions to move towards becoming a carbon-neutral society.	It outlines our department's energy and climate policies in detail for the period from 2021 to 2030 and looks onwards to 2050. The NECP collates the policies, measures and actions related to energy and climate outlined in a range of government plans: such as the Climate Action Plan, the National Development Plan, and Project Ireland 2040, into one cohesive document. It also presents modelling that illustrates Ireland's current trajectories toward its three main European targets. The NECP reflects the ambitions set out in Climate Action Plan 2024. The NECP will act to identify gaps and areas that Ireland can improve on, which should be reflected in updated policies and measures in subsequent Climate Action Plans. The policies outlined in the NECP reflect the ambition of Climate Action Plan 2024.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Implementation Plan for the Sustainable Development Goals 2022-2024	It is the second National Implementation Plan for the achievement of the Sustainable Development Goals reviews the progress made towards each of the 17 Goals.	The Plan sets out five strategic objectives and 51 actions, with 119 individual measures to increase Ireland's ambition and strengthen implementation structures to achieve the Sustainable Development Goals (SDGs). It also incorporates 23 external actions from four other National Plans or Strategies which contribute to and are complementary to the objectives of this Plan and which have been included for coherence and reporting purposes. Strategic Objective 1: To embed the SDG framework into the work of Government Departments to achieve greater Policy Coherence for Sustainable Development Strategic Objective 2: To integrate the SDGs into Local Authority work to better support the localisation of the SDGs Strategic Objective 3: Greater partnerships for the Goals Strategic Objective 4: To further incorporate the principle of Leave No One Behind into Ireland's Agenda 2030 implementation and reporting mechanisms Strategic Objective 5: Strong reporting mechanisms	Implementation of the Strategy needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

Planning, Land Use and Transport Outlook 2040	The PLUTO takes account of forecasted future economic and demographic scenarios, affordability considerations and relevant Government policies.	The PLUTO seeks to: 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.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Investment Framework for Transport in Ireland (NIFTI) (2021)	The high-level strategic framework for prioritising future investment in the land transport network. This new framework is the Department of Transport's contribution to Project Ireland 2040, Government's long-term strategy for accommodating population growth in a sustainable manner and making Ireland a better country for all of its people. It has been developed to ensure that our transport sectoral strategy is underpinned by and supports the achievement of the spatial objectives and National Strategic Objectives set out in the National Planning Framework.	The framework establishes high-level investment priorities to efficiently and effectively address key transport challenges identified by the background analysis and to ensure that transport investment is aligned with and supports Government's overarching spatial and climate change objectives, as articulated in the National Planning Framework and Climate Action Plan.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Infrastructure and Capital Investment Plan (2016-2021)	€27 billion multi-annual Exchequer Capital Investment Plan, which is supported by a programme of capital investment in the wider State sector, and which over the period 2016 to 2021 will help to lay the foundations for continued growth in Ireland.	• This Capital Plan reflects the Government's commitment to supporting strong and sustainable economic growth and raising welfare and living standards for all. • It includes allocations for new projects across a number of key areas and funding to ensure that the present stock of national infrastructure is refreshed and maintained.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Energy Security in Ireland to 2030 ("Energy Security Package")	It outlines a new strategy to ensure energy security in Ireland for this decade, while ensuring a sustainable transition to a carbon neutral energy system by 2050.	The Energy Security Package includes a range of measures to implement this approach in the short and medium term by prioritising: • Reduced and Responsive Demand • A Renewables-Led System • More Resilient Systems • Robust Risk Governance	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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. It aims at improving synergies and identifying and tackling policy gaps, policy conflicts and trade-offs as part of a coherent, joined-up approach to policy making on sustainable development. Ireland's Framework for Sustainable Development timeframe is to 2020 to tie in with other national and international frameworks, but a longer-term horizon to 2050 is also taken where appropriate, to provide a framework for guiding and reporting on long-term broad development trends such as on climate change.	The objectives of the Framework are to: • Identify and prioritise policy areas and mechanisms where a sustainable development approach will add value and enable progress towards the strategy aims. • Highlight and promote existing sustainable practices that, with the correct support, can underpin sustainable development more generally. • Strengthen policy integration, coherence and co-ordination and bring a long term perspective to decision making. • Set out governance mechanisms which ensure effective participation within government and across all stakeholders. • Set out clear measures, responsibilities and timelines in an implementation plan. • Set out how progress is to be measured and reported on through the use of indicators. • Incorporate adequate and effective monitoring, learning and improvement into the Framework 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Smarter Travel – A Sustainable Transport Future – A New Transport Policy for Ireland 2009 – 2020	Outlines a policy for how a sustainable travel and transport system can be achieved. Sets out five key goals: • To reduce overall travel demand. • To maximise the efficiency of the transport network. • To reduce reliance on fossil fuels. • To reduce transport emissions. • To improve accessibility to transport.	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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Draft National Bioenergy Plan 2014 - 2020	The Draft Bioenergy Plan vision: 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Draft Renewable Electricity Policy and Development Framework (DCCAE) 2016	Goal: To optimise the opportunities in Ireland for renewable electricity development on land at significant scale, to serve both the All Island Single Electricity Market and any future regional market within the European Union, in accordance with European and Irish law, including Directive 2009/28/EC: On the promotion of the use of energy from renewable resources.	Objective: To develop a Policy and Development Framework for renewable electricity generation on land to serve both the All Island Single Electricity Market and any future regional market within the European Union, with particular focus on large scale projects for indigenous renewable electricity generation. This will, inter alia, provide guidance for planning authorities and An Bord Pleanála.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Alternative Fuels Infrastructure for the Transport Sector (DTTAS) 2017-2030	This Framework sets targets to achieve an appropriate level of alternative fuels infrastructure for transport, which is relative to national policy and Irish market needs. Non-infrastructure-based incentives to support the use of the infrastructure and the uptake of alternative fuels are also included within the scope of the Framework.	Targets for alternative fuel infrastructure include the following: • AFV forecasts • Electricity targets • Natural gas (CNG, LNG) targets • Hydrogen targets • Biofuels targets • LPG targets • Synthetic and paraffinic fuels targets	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Cycle Network Plan Report 2023 (Transport Infrastructure Ireland, on behalf of the Department of Transport)	The planned National Cycle Network, presented below, links cities and towns of over 5,000 people with a safe, connected and inviting cycle network. One of the most ambitious and wide-reaching infrastructure plans in the history of the State, the proposed cycle network of approximately 3,500km will connect more than 200 settlements and 2.8m people. The National Cycle Network will link to destinations such as transport hubs, centres of education, centres of employment, leisure, and tourist destinations with the intention of facilitating greater cycling and walking amongst students, leisure users, tourists, and commuters alike. The NCN Plan complements other networks and establishes a core spine of infrastructure to encourage further development of cycling projects in the future, thereby optimising the potential for people to cycle as part of their daily activities, such as travel to work or education.	As well as contributing to Ireland's commitments to sustainability and decarbonisation, successful implementation of the NCN Plan will provide many benefits for cyclists and communities across Ireland, including: • Ensuring delivery of a high-quality cycle network which will promote safety, comfort and increased participation in cycling. • Improving sustainable connectivity nationally and providing links with other networks such as CycleConnects, EuroVelo and Northern Ireland networks. • Supporting both urban and rural economies through increased leisure and tourism cycling. • Improving public health through well documented benefits of active travel. • Guiding how local authorities prioritise exchequer-funded investments in cycle infrastructure. • Making use of existing infrastructure wherever possible including greenways, road infrastructure, • and declassified roads where safe and inviting cycle experiences can be provided. • The NCN aligns with the NTA's CycleConnects programme of urban and county-level cycle networks, as well as other cycle routes and networks in various stages of development, including the EuroVelo routes, national and regional greenways, and the Strategic Plan for Greenways in Northern Ireland.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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:
		• Ensuring that electricity supply consistently meets demand
		• Ensuring the physical security and reliability of gas supplies to Ireland
		• Enhancing the diversity of fuels used for power generation
		• Delivering electricity and gas to homes and businesses over efficient, reliable and secure networks
		• Creating a stable attractive environment for hydrocarbon exploration and production
		• Being prepared for energy supply disruptions
			Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

National Renewable Energy Action Plan (NREAP) (2010)	The National Renewable Energy Action Plan sets out the Government's strategic approach and concrete measures to deliver on Ireland's 16% target under Directive 2009/28/EC. National Renewable Energy Action Plan.	The areas of intervention identified by the NREAP are heat, transport and electricity. Section 4 provides an overview of all policies and measures to promote the use of energy from renewable resources, these are: Biofuels Mineral Oil Tax Relief (MOTR) Schemes to increase production and use of biofuel; Greener Homes Scheme, financial facilitates to wider deployment of renewable-energy heating technologies in the residential sector; Grant support for the planting of perennial biomass crops (willow and miscanthus) – contributes to biomass needs of renewable energy sector; a policy that facilitates renewables by providing for grid connections outside the gate process for certain small, renewable, low carbon generators; new local and central authorities; etc.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

National Energy Efficiency Action Plan for Ireland (2017 – 2020)	Article 24 of the EU Energy Efficiency Directive requires Member States to submit a National Energy Efficiency Action Plan (NEEAP) every three years. Ireland's 4th NEEAP was produced in early 2017.	It provides a comprehensive overview on the progress made towards the above targets the measures in place to ensure the targets are met the strategies and policies in place across the residential, commercial, transport and public 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Broadband Plan (2012)	The National Broadband Plan is the Government's initiative to deliver high speed broadband services to all premises in Ireland. This will be delivered through investment by commercial enterprises coupled with intervention by the State in those parts of the country where private companies have no plans to invest.	The Plan sets out: • A clear statement of Government policy on the delivery of High-Speed Broadband. • Specific targets for the delivery and rollout of high-speed broadband and the speeds to be delivered. • The strategy and interventions that will underpin the successful implementation of these targets. • A series of specific complementary measures to promote implementation of Government policy in this area.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Shaping Our Electricity Future 1.1 (EirGrid)	The main objective of the Shaping Our Electricity Future Roadmap Version 1.1 is to outline how we can make the grid ready so that 80% of Ireland's and Northern Ireland's electricity can come from renewable sources, like the wind and sun, by 2030. These targets, and new limits to carbon emissions, are the product of updates to climate change policy across the island in 2022.	Key goals include: • Support the delivery of renewable electricity. • Find problems, gaps, opportunities, potential collaborations, or areas of duplication in the deployment of renewable electricity projects. • Help to find and resolve potential regulatory, administrative and/or legal barriers to the faster deployment of renewable electricity projects. • Increase alignment across the energy sector to support the delivery of renewable electricity generation projects. • Recommend appropriate investment conditions for electricity projects.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Construction 2020, A Strategy for a Renewed Construction Sector	Construction 2020 sets out a package of measures agreed by the Government and is aimed at stimulating activity in the building industry. The Strategy aims both to increase the capacity of the sector to create and maintain jobs, and to deliver a sustainable sector, operating at an appropriate level. It seeks to learn the lessons of the past and to ensure that the right structures and mechanisms are in place so that they are not repeated.	This Strategy therefore addresses issues including: • A strategic approach to the provision of housing, based on real and measured needs, with mechanisms in place to detect and act when things are going wrong; • Continuing improvement of the planning process, striking the right balance between current and future requirements; • The availability of financing for viable and worthwhile projects; • Access to mortgage finance on reasonable and sustainable terms; • Ensuring we have the tools we need to monitor and regulate the sector in a way that underpins public confidence and worker safety; • Ensuring a fit for purpose sector supported by a highly skilled workforce achieving high quality and standards; and • Ensuring opportunities are provided to unemployed former construction workers to contribute to the recovery of the sector.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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 re-orientate 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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)	The National Landscape Strategy will be used to ensure compliance with the European Landscape Convention and to establish principles for protecting and enhancing the landscape while positively managing its change. It will provide a high-level policy framework to achieve balance between the protection, management and planning of the landscape by way of supporting actions. Landscape Strategy Vision: *"Our landscape reflects and embodies our cultural values and our shared natural heritage and contributes to the well-being of our society, environment and economy. We have an obligation to ourselves and to future generations to promote its sustainable protection, management and planning."*	The objectives of the National Landscape Strategy are to: • Implement the European Landscape Convention by integrating landscape into the approach to sustainable development; • Establish and embed a public process of gathering, sharing and interpreting scientific, technical and cultural information in order to carry out evidence-based identification and description of the character, resources and processes of the landscape; • Provide a policy framework, which will put in place measures at national, sectoral - including agriculture, tourism, energy, transport and marine - and local level, together with civil society, to protect, manage and properly plan through high quality design for the sustainable stewardship of the landscape; • Ensure that we take advantage of opportunities to implement policies relating to landscape use that are complementary and mutually reinforcing and that conflicting policy objectives are avoided in as far as possible.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Hazardous Waste Management Plan 2021-2027	The EPA's National Hazardous Waste Management Plan (NWHMP) covers a six-year period from 2021 to 2027. This is the fourth National Hazardous Waste Management Plan and is made under Section 26 of the Waste Management Act 1996. It sets out the priorities to be pursued over the next six years and beyond to improve the prevention and management of hazardous waste, taking into account the progress made since the previous revised plan, and the waste policy and legislative changes that have occurred since the previous revised plan was published. The purpose of this plan is to protect the environment and human health in Ireland through best-practice management of hazardous wastes.	The Plan's objectives are: 1. Support and drive priority prevention actions by industry and the public to reduce the generation of hazardous waste; 2. Support the identification of adequate and appropriate collection infrastructure for all hazardous wastes with a view to mitigating environmental and health impacts; 3. Endorse the proximity principle such that hazardous wastes are treated as close to the point of production as possible – including within Ireland, taking into account the need for specialised installations for certain types of waste. 4. Support effective regulation of the movement and management of hazardous wastes in line with national policy priorities; 5. Promotion of safe reuse and recycling pathways in support of the circular economy.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Waste Management Plan for a Circular Economy (2024)	The Regional Waste Management Planning Offices, under the auspices of the County and City Management Association National Oversight Group, have co-ordinated the preparation of this plan which is the first National Waste Management Plan for a Circular Economy. This Plan sets out a framework for the prevention and management of waste in Ireland for the period 2024 to 2030.	The Plan seeks to influence sustainable consumption and prevent the generation of waste, improve the capture of materials to optimise circularity and enable compliance with policy and legislation.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Healthy Ireland Framework 2019-2025	The Healthy Ireland Framework 2019-2025 is a roadmap for building a healthier Ireland.	It is based around four key goals: • to increase the proportion of people who are healthy at all stages of life • to reduce health inequalities • to protect the public from threats to health and wellbeing • to create an environment where every individual and sector of society can play their part in achieving a healthy Ireland	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
S.I. 232/2018 - European Union (National Emission Ceilings) Regulations 2018	The Regulations require the Minister to ensure that emissions of the specified pollutants are limited in accordance with the ceilings set out in Schedule 2. Annex III part 2 includes a set of measures to reduce emissions from agriculture.	The Regulations provide that the Environment Protection Agency shall prepare an annual inventory report of emissions of 5 specified pollutants (sulphur dioxide (SO_2), nitrogen oxides (NO_x), non-methane volatile organic compounds (NMVOC), ammonia (NH_3), and fine particulate matter ($PM_{2.5}$), and in certain years a report on projections of emissions. The Regulations also require the preparation of a national air pollution control programme Referring, among other things, to the 1979 UNECE Convention on Long Range Transboundary Air Pollution), and the establishment of a network to monitor the negative impacts of air pollution upon ecosystems based on a network of monitoring sites that is representative of Ireland's freshwater, natural and semi-natural habitats and forest ecosystem types. The Programme shall contain elements on the use of nitrogen fertilizer and soil protection. In fulfilling the requirements of subparagraph (b) the Minister shall ensure coordination with other monitoring programmes established pursuant to Union legislation including Directive 2008/50/EC, Directive 2000/60/EC and Council Directive 92/43/EEC and, if appropriate, the LRTAP Convention and, where appropriate, make use of data collected under those programmes.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Clean Air Strategy 2023	The Clean Air Strategy provides the strategic policy framework necessary to identify and promote integrated measures across government policy that are required to reduce air pollution and promote cleaner air while delivering on wider national objectives.	• Having a National Strategy provides a policy framework by which Ireland can develop the necessary policies and measures to comply with new and emerging EU legislation. • The Strategy should also help tackle climate change. • The Strategy considers a wider range of national policies that are relevant to clean air policy such as transport, energy, home heating and agriculture. • In any discussion relating to clean air policy, the issue of people's health is paramount and this is a theme of the Strategy.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Agri-Food Strategy 2030	The Food Vision 2030 Strategy is a new ten year Strategy for the Irish agri-food sector (taken to include primary agriculture, food and drink processing and manufacturing, fisheries, aquaculture and fish processing, forestry and forestry processing and the equine sector).	The Strategy consists of 22 Goals, grouped into four high-level "Missions" for the sector to work toward: • A Climate Smart, Environmentally Sustainable Agri-Food Sector • Viable and Resilient Primary Producers with Enhanced Well-Being • Food Which is Safe, Nutritious And Appealing, Trusted And Valued at Home and Abroad • An Innovative, Competitive and Resilient Agri-Food Sector, Driven by Technology And Talent	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

Agricultural Schemes, including: **Rural Environmental Protection Scheme (REPS), Agri-Environmental Options Scheme (AEOS), Green, Low-Carbon, Agri-environment Scheme (GLAS) and Results-based Environment-Agri Pilot Scheme (REAP)**	Agri-environmental funding schemes aimed at rural development for the environmental enhancement and protection. The REPS evolved to AEOS 1, 2 and 3 and currently the Green Low Carbon Agri-Environment (GLAS) Scheme is in place. The recently introduced REAP scheme in Ireland is a two year scheme in place for 2021 and 2022.	• Establish best practice farming methods and production methods in order to protect landscapes and maximise conservation. • Protect biodiversity, endangered species of flora and fauna and wildlife habitats. • Ensure food is produced with the highest regard to the environment. • Implement nutrient management plans and grassland management plans. • Protect and maintain water bodies, wetlands and cultural heritage.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Rural Development Programme 2014-2022 (as amended)	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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Our Rural Future: Rural Development Policy 2021-2025	The vision of this policy is for a thriving rural Ireland which is integral to our national economic, social, cultural and environmental wellbeing and development. Our Rural Future represents the Irish Government's blueprint for a post-COVID-19 recovery and development of rural Ireland over the next 5 years. It provides the framework to achieve the vision of transforming the quality of life and opportunity for people living in rural areas.	A set of policy measures aim to deliver wellbeing for all, and to support an aligned policy approach to rural development. It seeks to promote enhanced community participation, to prepare rural areas for technological, demographic and environmental change, and to address the diversity of challenges and opportunities facing rural areas, informed by analysis, data, and consultation.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

Tourism Policy Statement: People, Place and Policy – Growing Tourism to 2025	Growing Tourism to 2025 is a policy framework for the development of tourism within the Country. The main goal of this policy statement is to have a vibrant, attractive tourism sector that makes a significant contribution to employment across the country; is economically, socially and environmentally sustainable; helps promote a positive image of Ireland overseas, and is a sector in which people want to work.	The Tourism Policy Statement sets three headline targets to be achieved by 2025: • Overseas tourism revenue of €5 billion per year • net of inflation excluding carrier receipts; • 250,000 people employed in tourism; and • 10 million overseas visitors to Ireland per year.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Waterways Ireland Heritage Plan 2016-2020	The Waterways Ireland Heritage Plan provides a strategic framework for the integration of built, natural and cultural heritage into the future management of waterways. 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. • Objective 4: To develop Waterways Ireland as a heritage organisation committed to achieving the aim of this plan.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Waterways Ireland "Reimagining Our Waterways" 10-Year Plan 2023	10-Year Plan is a visionary roadmap for reimagining historical waterways, greenways and blueways. Waterways Ireland's Vision is to be recognised as having enabled the creation of inspirational inland navigations and waterways experiences, through conservation and sustainable development for the benefit of all.	At the core of our 10-year plan is set of six strategic priorities. These are: • Organisation Development & Governance • Sustainable Funding Model • Asset Portfolio Management • Participation and Reputation • Sustainable Development • Climate Action, Environment and Heritage	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Housing (Traveller Accommodation) Act 1998	The Housing (Traveller Accommodation) Act 1998 requires that each Housing Authority adopts a Traveller Accommodation Programme for its functional area.	This Act amended and extended the Housing Acts, 1966 to 1997, the Local Government (Planning and Development) Acts, 1963 to 1998, the Local Government Act, 1991, to make provision for the accommodation needs of travellers, to provide for the appointment of a national traveller accommodation consultive committee and local traveller accommodation consultative committees and to provide for related matters.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

Sustainable Residential Development and Compact Settlement Guidelines (DHLGH, 2024)	The Guidelines set out policy and guidance in relation to the planning and development of urban and rural settlements, with a focus on sustainable residential development and the creation of compact settlements. They are accompanied by a companion non-statutory Design Manual that illustrates best practice examples of how the policies and objectives of the Guidelines can be applied.	The Guidelines build on and update previous guidance to take account of current Government policy and economic, social and environmental considerations. There is a renewed focus in the Guidelines on the renewal of existing settlements and on the interaction between residential density, housing standards and quality urban design and placemaking to support sustainable and compact growth.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Retail Planning Guidelines for Planning Authorities (2012)	The Guidelines have five key policy objectives: • Ensuring that retail development is plan-led; • Promoting city/town centre vitality through a sequential approach to development; • Securing competitiveness in the retail sector by actively enabling good quality development proposals to come forward in suitable locations; • Facilitating a shift towards increased access to retailing by public transport, cycling and walking in accordance with the Smarter Travel strategy; and • Delivering quality urban design outcomes.	The aim of the Guidelines is to ensure that the planning system continues to play a key role in supporting competitiveness in the retail sector for the benefit of the consumer in accordance with proper planning and sustainable development. In addition, the planning system must promote and support the vitality and viability of city and town centres thereby contributing to a high standard of urban design and encouraging a greater use of sustainable transport.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Architectural Protection Guidelines for Planning Authorities (2011)	Part 1 of these guidelines includes the criteria to be applied when selecting proposed protected structures for inclusion in the RPS. It also offers guidance to planning authorities on issuing a declaration on a protected structure and on determining planning applications in relation to a protected structure, a proposed protected structure or the exterior of a building within an ACA.	Part 2 contains supplementary detailed guidance to support planning authorities in their role to protect the architectural heritage when a protected structure, a proposed protected structure or the exterior of a building within an ACA is the subject of development proposals and when a declaration is sought in relation to a protected structure.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
National Housing Strategy for Disabled People 2022-2027	The primary objective of the strategy which is to facilitate disabled people to live independently with the appropriate choices and control over where, how and with whom they live, promoting their inclusion in the community.	This Strategy will build on the progress made under the previous strategy, The National Housing Strategy for People with a Disability (NHSPWD) 2011 – 2016 (extended to 2021). The Strategy promotes a whole of community approach to housing for disabled people when planning the provision of housing, including infrastructure, transport, education, and employment.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Derelict Sites Act (1990)	An Act to make provision with respect to land to prevent it being or becoming a derelict site, to enable Local Authorities to require the taking of measures on derelict sites by the owners or occupiers and, in certain circumstances, to acquire derelict sites compulsorily, to establish registers of derelict sites, to enable the minister to give directions in relation to derelict sites, to provide for a derelict sites levy and to provide for other matters connected with the aforesaid and to repeal the Derelict Sites Act 1961.	Under the Act, local authorities can: • Prosecute owners who do not comply with notices served • Make compulsory land purchases • Carry out necessary work themselves and charge the owners for the cost All local authorities must: • Maintain derelict sites register • Make the register available for public inspection - It can remove an entry from the Register when it is satisfied that improvement works have been carried out on the derelict site.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

Urban Regeneration and Housing Act 2015 (as amended)	An Act to make provision with respect to land in areas in which housing is required and in areas which are in need of renewal to prevent it lying idle or remaining vacant, to establish a register of vacant sites in those areas, to provide for vacant sites levy, to amend the Derelict Sites Act 1990, to amend Parts II, III and V of the Planning and Development Act 2000, to amend the Housing (Miscellaneous Provisions) Act 2009 and to provide for related matters.	This Revised Act is an administrative consolidation of the Urban Regeneration and Housing Act 2015. It is prepared by the Law Reform Commission in accordance with its function under the Law Reform Commission Act 1975 (3/1975) to keep the law under review and to undertake revision and consolidation of statute law.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Delivering Homes, Building Communities 2025-2030: An Action Plan on Housing Supply and Targetting Homelessness	Delivering Homes, Building Communities 2025–2030 sets out the Government's overarching strategy to significantly increase housing supply and address homelessness through accelerated delivery, planning and infrastructure reform, and a strengthened role for the State in housing provision.	The Action Plan is structured around two primary policy pillars, focused on activating housing supply at scale and targeting homelessness through coordinated State-led intervention and delivery reform through the following: • Increase housing supply at scale by accelerating the delivery of 300,000 new homes by 2030, including social, affordable, cost-rental and private housing, to meet demographic and economic demand and address long-standing supply shortages. • Target and prevent homelessness through a coordinated, whole-of-government approach that prioritises early intervention, increased delivery of social housing, and pathways from emergency accommodation to secure, long-term homes. • Remove barriers to delivery by activating zoned land, reforming planning and judicial review processes, and investing in enabling infrastructure (water, energy, transport) to support faster and more predictable housing development. • Strengthen the State's role while supporting private delivery, including record public investment, expansion of the Land Development Agency, and measures to restore viability and confidence across the construction and development 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 in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Housing for All - a New Housing Plan for Ireland-	The government's overall objective is that every citizen in the State should have access to good quality homes: • to purchase or rent at an affordable price • built to a high standard and in the right place • offering a high quality of life	The policy has four pathways to achieving housing for all: • supporting home ownership and increasing affordability • eradicating homelessness, increasing social housing delivery and supporting social inclusion • increasing new housing supply • addressing vacancy and efficient use of existing stock	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Town Centre First Policy (2022)	The Town Centre First Policy is a major cross-government policy that aims to tackle vacancy, combat dereliction and breathe new life into town centres. It advocates for a holistic, place-based approach to sustainable rural development. The Town Centre First policy aims to create town centres that function as viable, vibrant and attractive locations for people to live, work and visit, while also functioning as the business, service, social and. cultural.	The Policy contains 33 actions which will give towns the tools and resources they need to become more viable and attractive places in which to live, work, socialise and run a business. This will focus on charting the future direction of their towns, address issues of vacancy and dereliction and add vibrancy to the town centre.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
IDA's Adapt Intelligently: A Strategy for Sustainable Growth and Innovation 2025-29 and associated developments	IDA Ireland's strategy 2025-29 is an ambitious and positive approach to a fast-changing world. Drawing on the opportunities for growth arising from the structural forces that are reshaping the global economy, it sets an ambition: • For Ireland to be a leading location for smart, sustainable manufacturing and intelligent, digitalised services • To increase the number of companies undertaking cutting-edge research and innovation and the scope, scale and ambition of their Research, Development and Innovation activity • To retain and enhance Ireland's position in key strategic value chains • To grow the level of investment in sustainable business practices and processes and in developing new sustainability and energy-efficient technologies • For Ireland to be a leading location for the world-class talent and skills needed to realise future growth opportunities.	In pursuit of the strategic objectives and targets, IDA Ireland will win 1,000 investments to: • Secure €7bn in new Research, Development and Innovation investment • Deliver 550 regional investments • Reduce IDA Ireland client carbon emissions by 35% • Create 75,000 jobs • Upskill 40,000 people. • This in turn will support IDA Ireland client spend in Ireland of €250bn over the lifetime of the strategy on wages, Irish goods and services, and capital investment, providing further opportunity and economic impact across local supply chains.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

National Biodiversity Adaptation Plan 2025	The Department of Housing, Local Government and Heritage's Biodiversity Sectoral Adaptation Plan 2025 is the second Sectoral Climate Change Adaptation Plan for Ireland's Biodiversity Sector. It has been developed under the provisions of the Climate Action and Low Carbon Development Act 2015 and the National Adaptation Framework (Department of Climate, Energy and the Environment, 2024). The 2025 Plan builds on the 2019 Plan and integrates the latest climate and ecological science, stakeholder engagement, and national and international strategies. The Plan is a national-scale plan that considers climate change impacts and risks across Ireland's terrestrial, freshwater, and marine biodiversity. It assesses sectoral consequences under two climate scenarios.	The Plan is aligned with the objectives of the 4th National Biodiversity Action Plan and supports the overarching objectives of the Nature Restoration Regulation to put restoration measures in place to restore at least 20% of the EU's land and sea areas by 2030 and all ecosystems in need of restoration by 2050. The Plan sets out three strategic goals supported by eight objectives and 22 new actions, alongside coordinated delivery of 43 existing actions from the 4th National Biodiversity Action Plan. These actions range from strengthening the evidence base for adaptation, ecosystem restoration, and nature-based solutions to governance, monitoring, and public engagement. Each action is linked to delivery owners, timelines, and indicators to support implementation and alignment with Ireland's climate commitments. Governance and implementation are supported by a Monitoring, Reporting, Evaluation and Learning framework, annual progress reviews, and funding mechanisms. The Plan also recognises cross-sectoral interdependencies, highlighting how climate impacts and adaptation efforts in biodiversity influence and are influenced by sectors such as agriculture, water, health, energy, and infrastructure. Through this integrated and forward-looking approach, the Plan aims to mainstream climate adaptation and build long-term resilience across Ireland's ecosystems, ensuring that biodiversity continues to support climate regulation, human wellbeing, and sustainable development.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Heritage Ireland 2030 (2020)	The Vision from Heritage Ireland is: "Recognised for its contribution to society and well-being, Ireland's heritage will be valued, nurtured and protected and placed at the very centre of our decision"	Heritage Ireland 2030 is Ireland's new national heritage plan. It is built around a vision of our heritage – in all its forms – being at very centre of local and national discourse, valued by all and cared for and protected for future generations. At the heart of this framework are three themes: communities, leadership and partnerships. These themes reflect the importance of ongoing collaboration between government and communities, heritage organisations, individuals and local authorities in caring and planning for our shared heritage. Heritage Ireland 2030 suggests a series of structures under which all these stakeholders can come together to advance the protection of Ireland's heritage through over 150 actions. These structures will be established in Q1 and Q2 of 2022 ahead of the publication of an implementation plan in Q3 which will assign actions and timeframes to responsible stakeholders.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Emerging NTA CycleConnects: Ireland's Cycle Network	Aims to improve sustainable travel by providing the potential for more trips on a safe, accessible and convenient cycling network, connecting more people to more places.	Proposals for cycling links in key cities, towns and villages in each county are included in the plan, in addition to connections between the larger towns, villages and settlements. The plan also incorporates existing and planned cycle routes such as greenways and blueways. The draft proposals envisage an extensive cycling network across the 22 counties, complementing the cycling plans already developed for the Greater Dublin Area (Meath, Kildare, Wicklow and Dublin). Together these plans will create an overall comprehensive cycle network for Ireland.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
The All-Island Strategic Rail Review	The All-Island Strategic Rail Review aims to enhance and expand the rail system across Ireland and Northern Ireland with 32 strategic recommendations for development up to 2050.	The All-Island Strategic Rail Review was jointly commissioned by the Department of Transport in Ireland and the Department for Infrastructure in Northern Ireland. Its primary goal is to create a strategic vision for the rail system that supports sustainable transport, enhances connectivity, and aligns with net carbon zero commitments in both jurisdictions. The review emphasizes the importance of rail as a backbone for a high-quality transport system that benefits communities and the economy.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
December 2013 the European parliament adopted Regulation (EU) No.315/2013 on Guidelines for the development of the Trans European Transport Network (Ten-T), (amended in 2014 to include supplementary maps (EU) No.473/2014)	The Guidelines set out that member states shall "take appropriate measures" to complete their core network by 2030; the maps associated with the Regulations show the core network corridors of the TEN-T extending from Dublin to Belfast, and Dublin to Cork only.	Nationally, as a result of the directive, parts of the N13 (including the Letterkenny to Bridgend section), N14 and N15 have also been identified as part of the TEN-T network	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

Regional/ County/Local Level			
Southern Regional Spatial and Economic Strategy 2020-2032	The Regional Spatial and Economic Strategy provides a long-term strategic planning and economic framework for the Southern Region in order to support the implementation of the National Planning Framework.	The Southern Regional Spatial and Economic Strategy includes provisions for its 10 constituent local authorities: Cork City Council; Cork County Council; Clare County Council; Kerry County Council; Limerick City and County Council; Tipperary County Council; Waterford County Council; Carlow County Council; Kilkenny County Council; and Wexford County Council.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – 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: • Bus; • Light Rail; • Heavy Rai; • Integration Measures and Sustainable • Transport Investment; • Integrated Service Plan; and • Integration and Accessibility.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Limerick Shannon Metropolitan Area Transport Strategy 2040 (LSMATS)	The Strategy sets out the framework for the delivery of the transport system required to further the development of the Limerick Shannon Metropolitan Area as a hub of cultural and social development and regeneration; as the economic core for the Mid-West; as an environmentally sustainable and unified metropolitan unit; as a place where people of all ages can travel conveniently and safely; and a place that attracts people, jobs and activity from all over Ireland and beyond.	The aim of the Strategy is to provide a long-term strategic framework for the planning and development of transport infrastructure and services for the Limerick Shannon Metropolitan Area. It is a cross-county Metropolitan scale document which sets out the policies and objectives of the NTA, Limerick City and County Council, Clare County Council and Transport Infrastructure Ireland at a level appropriate to that scale.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
NPWS Conservation Plans and/or Conservation Objectives for SACs and SPAs	Management planning for nature conservation sites has a number of aims. These include: • To identify and evaluate the features of interest for a site • To set clear objectives for the conservation of the features of interest • To describe the site and its management • To identify issues (both positive and negative) that might influence the site • To set out appropriate strategies/management actions to achieve the objectives	• Conservation objectives for SACs and SPAs (i.e. sites within the Natura 2000 network) have to be set for the habitats and species for which the sites are selected. • These objectives are used when carrying out appropriate assessments for plans and projects that might impact on these sites.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Groundwater Protection Schemes	A Groundwater Protection Scheme provides guidelines for the planning and licensing authorities in carrying out their functions, and a framework to assist in decision-making on the location, nature and control of developments and activities in order to protect groundwater.	A Groundwater Protection Scheme aims to maintain the quantity and quality of groundwater, and in some cases improve it, by applying a risk assessment-based approach to groundwater protection and sustainable development.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied to comply with all environmental legislation and align with and cumulatively contribute towards – in 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: • **Those in force and emerging in the administrative area of Limerick City and County Council (including the overarching Limerick Development Plan 2022-2028);** • **Those in force and emerging in other adjoining planning authorities (including development plans for Local Authorities in: Cork; Tipperary; Clare; and Kerry; and local plans for settlements)**	• Outline planning objectives for land use development. • Strategic framework for planning and sustainable development including those set out in National Planning Framework and Regional Economic and Spatial Strategies. • Set out the policies and proposals to guide development in the specific Local Authority area.	• Identify future infrastructure, development and zoning required. • Protect and enhances amenities and environment. • Guide planning authority in assessing proposals. • Aim to guide development in the area and the amount of nature of the planned development. • Aim to promote sustainable development. • Provide for economic development and protect natural environmental, heritage.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied to comply with all environmental legislation and align with and cumulatively contribute towards – in 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 Limerick LECP 2023-2028	The overarching vision for each LECP is: "to promote the well-being and quality of life of citizens and communities."	The purpose of the Local Economic and Community Plan 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 in county Laois.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Town Centre First Plans	Town Centre First aims to create town centres that function as viable, vibrant and attractive locations for people to live, work and visit, while also functioning as the service, social, cultural and recreational hub for the local community.	Town Centre First (TFC) lays the foundation for each town to develop, at a local level, their own plan-led path forward. This will be expressed through a tailored TCF plan, which is underpinned by a clear diagnosis of local strengths and challenges. The TCF approach is centred on: • Collaboration and communication – a collaborative process involving all relevant local stakeholders, represented by a collaborative Town Team, with good communication in respect of issues raised and the agreed direction. • Understanding the place – analysis and appraisal underpinned by a town audit/ data gathering -process. • Defining the place – shaping the plan around high-level objectives that are subsequently expressed through a series of actions. • Enabling the place– identifying a clear path to delivery of the Plan, cognisant that this will require actions of varying scale to be delivered by different partners.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
reThinking Tourism: Limerick City and County Council Tourism Plan 2025-2030	The Limerick City and County Tourism Plan represents a whole of organisation approach for tourism that takes into account the existing planning framework for tourism. The Plan examines the opportunities to deliver, in line with the Limerick Development Plan, on the aims and ambitions of the tourism industry, grow the appeal of Limerick as an international visitor destination and meet the needs of Limerick's visitors.	The Plan comprises a series of actions under headings including: • Limerick for tourism – collaboration • Destination marketing • Scale signature attractions • Destination placemaking • Community tourism impact • Linking the City and County • Event destination • Outdoor experiences • Unique limerick experiences • Sustainability – Green DNA	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Limerick City and County Festivals and Events Strategy 2024-2028	The Festivals and Events Strategy has been prepared by Limerick City and County Council. The Vision of the Strategy is that "Limerick will inspire and engage local residents and visitors through an authentic, distinct and diverse year-round programme of festivals and events, that celebrate Limerick's culture on a world stage."	The key objectives of the Strategy are: • To develop a portfolio of festivals and events building momentum towards and beyond Ryder Cup 2027. • To reflect the essence of Limerick as captured in our brand — Atlantic Edge, European Embrace — celebrating and promoting Limerick as an innovative, open, inclusive place to live, visit, study and work. • To develop our local communities, support universal accessibility, wellbeing, civic engagement and placemaking. • To incorporate the UN Sustainable Development Goals in all aspects of planning, management and implementation of festivals and events. • To develop a compelling portfolio of year-round festivals and events. • To position Limerick as a festivals and events destination for leisure, weekend breaks, day-trips and to support seasonality, to motivate and attract domestic and international visitors to Limerick and increase length of visit and dwell time. • To leverage national/international public and private funding streams and set up multi-annual planning, to increase investment for festivals and events.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied to comply with all environmental legislation and align with and cumulatively contribute towards – in 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 Authority Renewable Energy Strategy	The Strategy sets out the framework for the delivery of sustainable and renewable energies throughout the County.	The LARES outlines the potential for a range of renewable energy resources and developments and acknowledges the significant contribution that they can make to the county in terms of energy security, reduced reliance on traditional fossil fuels, enabling future energy exports, meeting assigned national targets and the transition to a low carbon economy.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in 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 Authority Climate Action Charter 2019	The Climate Action Charter is a key action in the Plan and will ensure every local authority embeds decarbonisation, sustainable development and climate resilience into every aspect of the work they do. This Plan will ensure to meet local authority's 2030 climate commitments, on a trajectory to be net-zero emissions by 2050.	The Charter commits Local Authorities to several actions that will ensure that they play a key leadership role locally and nationally in delivering effective climate action.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Limerick Landscape Character Assessment forming part of the Limerick Development Plan 2022-2028 and Landscape Character Assessment in adjoining local authorities	Characterises the geographical dimension of the landscape.	• Identifies the quality, value, sensitivity and capacity of the landscape area. • Guides strategies and guidelines for the future development of the landscape.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied to comply with all environmental legislation and align with and cumulatively contribute towards – in 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 Land Development Agency's Colbert Quarter Spatial Framework (2022)	This Spatial Framework sets out a vision for the area with principles to guide its future development, aligning with key objectives and policies within the Limerick Development Plan 2022-2028.	Th Strategy also supports and aligns with the ambitious growth plans for Limerick for compact urban growth and optimising brownfield land as set out in the National Planning Framework. The Colbert Quarter project will transform this part of Limerick city, incorporating new urban districts to be developed over time delivering potentially 2,800 homes in addition to commercial floorspace and public spaces alongside sustainable transport options.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Mayoral Programme: More for Limerick (2024-2029)	Sets out aspirations for the 2024-2029 Mayoralty including: • An Ambitious Plan showing a path for Limerick to grow to 2050 • Improved Quality of Life and Placemaking • Social Inclusion and More Equal Opportunities for All • More Affordable and Sustainable Housing • Reimaging Our City Centre and Key County Towns	The Mayoral Programme sets out a variety of transport measures which could be implemented to improve the liveability of Limerick. Measures include park and ride facilities to support the rail network, to prioritise pedestrians within the City Centre, a new traffic management plan in the City Centre to reduce through traffic, implementation of a high-quality active travel network and a much-progressed BusConnects system in place across the city in line with Plan.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Limerick Public Realm Strategy and Limerick Cultural Strategy	These Strategies ensure that public spaces and cultural assets are integrated into the urban fabric in a way that enhances quality of life, promotes tourism, and creates a sense of community.	These Strategies ensure that public spaces and cultural assets are integrated into the urban fabric in a way that enhances quality of life, promotes tourism, and creates a sense of community.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

Limerick Age-Friendly Strategy and Housing Delivery Action Plan 2022-2026	These Strategies ensure that the housing and community needs of all demographics, including older residents, are met, supporting social inclusion and affordable housing solutions.	These Strategies ensure that the housing and community needs of all demographics, including older residents, are met, supporting social inclusion and affordable housing solutions.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Limerick BusConnects Programme	BusConnects is a programme of public transport investment in Ireland's major urban centres.	It is developed and managed by the National Transport Authority (NTA), and funded by Project Ireland 2040. BusConnects includes many elements: • Redesigning the bus network • Building new bus corridors and cycle lanes • Implementing a state-of-the-art ticketing system • Implementing a cashless payment system • Simpler fare structure • New bus livery • New bus stops and shelters • New Park & Ride sites in key locations • Transitioning to a new zero emissions bus fleet The Limerick Bus Network Redesign 2023 provides a Final New Network for bus services identifying where and how often the bus should come.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Shannon Tourism Masterplan 2020-2030	The Shannon Tourism Masterplan is the first dedicated plan undertaken on the entire Shannon Region, setting out a bold and integrated framework for sustainable tourism development along the Shannon across 2020 – 2030. The Masterplan is a collaborative project led by Waterways Ireland with Fáilte Ireland and 10 Local Authorities along the River Shannon and Shannon-Erne Waterway.	The Masterplan has examined the potential for positioning the Shannon as a hub destination for international and domestic tourism. It identifies the scale and scope of this challenge and has identified the measures needed to develop the necessary infrastructure, products, and experiences to reposition the Shannon Region as a key tourism destination within Ireland's Hidden Heartlands. Three key themes are identified in the plan, The Shannon, Mighty River of Ireland, Shannon Journey's and Adventures and The Natural Timeless Shannon.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Limerick Biodiversity Action Plan 2025-2030	Aims to protect, conserve, enhance and restore heritage, biodiversity and ecosystem services across all spectrums. The Limerick Biodiversity Action Plan will provide a framework for biodiversity action for the next five years. A key aim of the plan is to focus the efforts and resources of Limerick City and County Council, public sector bodies, nature conservation groups and others to protect and enhance biodiversity and halt biodiversity loss in Limerick and to further incorporate the free ecosystem services that biodiversity provides.	The Limerick Biodiversity Action Plan puts forward an ambitious programme of a sixty-six actions to reverse the decline in biodiversity by 2030. The actions are based upon recommendations made in ecological studies and on proposals put forward by the Limerick Biodiversity Forum, nature conservation groups, NGO's, members of the public, Strategic Policy Committee members and various Council Departments. The actions in this plan are centred on five objectives which mirror the objectives of the 4th National Biodiversity Action Plan. • Adopt a Whole of Limerick City and County Council, Whole of Society Approach to Biodiversity • Meet Urgent Conservation and Restoration Needs • Secure Nature's Contribution to Current and Future Generations • Enhance the Evidence Base for Action on Biodiversity • Strengthen Limerick's Contribution to National and Regional Biodiversity Initiatives	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Limerick Heritage Plan 2017-2030	The purpose of the plan is to: *"Ensure that the Local Authority and the wider community focus on the need to ensure that Limerick's heritage continues to be unique and diverse, while being accessible to all. Heritage should remain a strong contributory factor to Limerick being a special place to live, work, locate to and a worthwhile location to invest in."* To achieve this purpose, the aims of the Plan are: • To raise the awareness of, appreciation for and enjoyment of Limerick City and County's heritage. • To acquire knowledge through survey and research on heritage in Limerick City and County and to make it available to the wider public in a user-friendly manner. • To promote best practice and encourage heritage conservation and management. To support the local economy and strengthen tourism.	• Pass on Limerick's heritage to future generations in the interest of sustainable future development • Contribute to a sense of community, sense of pride, sense of place, respecting the natural, cultural and built environments and Limerick's unique biodiversity. • To maximise the resources and expertise of the many agencies working in the heritage area, including state bodies, local government, the private and voluntary sectors. • Complement and maximise the potential of heritage for tourism development, local economic development, and supporting principles of sustainable planning and development. • Strengthen existing community development initiatives, assist local communities to secure funding for projects, e.g. Tidy Towns, etc. Assist the implementation of national policy in relation to heritage at a local level.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.

Limerick Agglomeration Noise Action Plan 2024-2028	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.	The actions detailed in the Plan have been drawn up to assess noise exposure in priority areas, as indicated by strategic noise mapping located on the identified routes within the respective functional areas of the Council.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Limerick City and County Council's Climate Action Plan 2024-2029	The Climate Action Plan sets out how the local authority can promote a range of mitigation, adaptation and other climate action measures, to help deliver on the national climate obligations and the Government's overall National Climate Objective, which seeks to pursue and achieve, by no later than the end of 2050, the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy. Vision: *"Limerick City and County Council will lead the transition to a low carbon and climate resilient society. This will be achieved through engagement, innovation and a just transition."* Mission: *"We will strive to achieve this by focusing on the key sustainability pillars of energy, transport, waste, behavioural change, land use, ecosystems and the built and natural environments. We will achieve this by supporting innovation and co-creation with all stakeholder in a collaborative environment across the county."*	The Climate Action Plan sets out a framework to promote, develop and implement climate actions through process improvements, community engagement, progressive development and iterative learning processes, which will be refined throughout the lifetime of the plan.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Retail Strategy for Limerick Shannon Metropolitan Area and County Limerick 2022 – 2028 forming part of the Limerick Development Plan	The overriding aim of the strategy is to create the appropriate conditions necessary to foster a healthy and vibrant retail environment in Limerick City Centre and throughout the Metropolitan Area and County Limerick to help improve the retail environment, enhance the vitality of urban areas and effectively manage and support positive change.	The key outputs are covered under number of headings including: • National, Regional and Local Policy Context • Current Retail Trends • Shopper and Household Retail Surveys • Town Centre Health Checks • Projected Retail Floorspace Requirements • Retail Planning Policies and Criteria for Assessment	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans, programmes, strategies, and other policy documents – the achievement of the objectives of the regulatory framework for environmental protection and management.
Regional and Local EV Charging Network Plan 2024-2030	The plan provides a pathway for the accelerated delivery of regional and local networks of public electric vehicle (EV) charging infrastructure at destination and neighbourhood areas, in line with both national and European ambitions for cleaner transportation. The plan ensures a cohesive and standardised approach. It will be led by local authorities, working together to develop regional and local strategies to promote a unified and efficient rollout of charging infrastructure and to facilitate the equitable transition to EVs.	The Regional and Local EV Charging Network Plan provides a way forward for equitably delivering charging infrastructure at a national and local level to support the national and international efforts to reduce transport-related carbon emissions through the shift to zero emission vehicles for all users. The plan lays out a pathway, adhering to the fundamental principles below set out in the Infrastructure Strategy, to sustainably deliver charging infrastructure at destination and neighbourhood locations.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied to comply with all environmental legislation and align with and cumulatively contribute towards – in 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 Neighbourh-o-od and Destination Electric Vehicle Charging Infrastructure Strategies	The Regional and Local EV Charging Network Plan published for consultation by ZEVI (Zero Emission Vehicles Ireland) in 2024 sets out minimum charging capacity requirements for local authorities per geographical area.	By developing a comprehensive network of strategically located charging stations, the strategies are intended to support the growing number of EVs on Irish roads, ensuring that all areas are adequately served and help meet the climate action targets.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied to comply with all environmental legislation and align with and cumulatively contribute towards – in 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 Connecting Ireland Rural Mobility Plan' by the National Transport Authority	The plan aims to improve mobility in rural areas, and it will do this by providing better connections between villages and towns by linking these areas with an enhanced regional network connecting cities and regional centres nationwide.	These principles include: • Increasing frequency on existing routes to attract more passengers; • Design useful and integrated timetables; • Schedule services to arrive at a centre before 09:00, particularly for work and education trips; • Allow for trips in the middle of the day for those shopping, attending health appointments, or visiting friends and family; • Schedule a return home at around 17:30 and potentially provide later services for socialising and evening retail where there is demand; • Provide services seven days a week; • Provide local routes that connect smaller settlements with the regional public transport network with integrated timetables that allow more interchange opportunities; and • Serve key locations within towns, e.g. hospitals, train stations, educational institutes, etc.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in-combination effects may arise. Implementation of the Plan to be varied to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
Fáilte Ireland Tourism plans and strategies, including those relating to "Wild Atlantic way" including Destination Experience Development Plans and Regional Tourism Development Strategies	Fáilte Ireland's work includes preparing various plans and strategies for Wild Atlantic Way other brands and initiatives. These plans are subject to their own environmental assessment processes and any project arising is required to be consistent with and conform with the provisions of all adopted/approved Statutory Policies, Strategies, Plans and Programmes, including provisions for the protection and management of the environment.	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 in-combination effects may arise. Implementation of the Plan to be varied to comply with all environmental legislation and align with and cumulatively contribute towards – in 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 in-combination effects may arise. Implementation of the Plan to be varied to comply with all environmental legislation and align with and cumulatively contribute towards – in 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 Further Environmental Baseline Detail

SACs (30) and SPAs (6) sites within and within 15 km of Limerick		
Site Code	**Site Name**	**Sensitive Features**
000030	Danes Hole, Poulnalecka SAC	Sensitive features comprise: caves not open to the public; old sessile oak woodlands with *Ilex* and *Blechnum* in the British Isles; and lesser horseshoe bat.
000051	Lough Gash Turlough SAC	Sensitive features comprise: turloughs; and rivers with muddy banks with *Chenopodion rubric p.p.* and *Bidention p.p.* vegetation.
000064	Poulnagordon Cave (Quin) SAC	Sensitive features comprise: caves not open to the public; and lesser horseshoe bat.
000174	Curraghchase Woods SAC	Sensitive features comprise: alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*; *Taxus baccata* woods of the British Isles; Desmoulin's whorl snail; and lesser horseshoe bat.
000432	Barrigone SAC	Sensitive features comprise: *Juniperus communis* formations on heaths or calcareous grasslands; semi-natural dry grasslands and scrubland facies on calcareous substrates; limestone pavements; and marsh fritillary.
000439	Tory Hill SAC	Sensitive features comprise: semi-natural dry grasslands and scrubland facies on calcareous substrates; calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*; and alkaline fens.
000646	Galtee Mountains SAC	Sensitive features comprise: Northern Atlantic wet heaths with *Erica tetralix*; European dry heaths; alpine and boreal dry heaths; species-rich *Nardus* grasslands, on siliceous substrates in mountain areas; blanket bogs; siliceous scree of the montane to snow levels; calcareous rocky slopes with chasmophytic vegetation; and siliceous rocky slopes with chasmophytic vegetation.
000930	Clare Glen SAC	Sensitive features comprise: old sessile oak woodlands with *Ilex* and *Blechnum* in the British Isles; and Killarney fern.
000939	Silvermine Mountains SAC	Sensitive features comprise: Northern Atlantic wet heaths with *Erica tetralix*; and species-rich *Nardus* grasslands, on siliceous substrates in mountain areas.
001013	Glenomra Wood SAC	Sensitive features comprise old sessile oak woodlands with *Ilex* and *Blechnum* in the British Isles.
001197	Keeper Hill SAC	Sensitive features comprise: Northern Atlantic wet heaths with *Erica tetralix*; and blanket bogs.
001430	Glen Bog SAC	Sensitive features comprise alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*.
001432	Glenstal Wood SAC	Sensitive features comprise Killarney fern.
001847	Philipston Marsh SAC	Sensitive features comprise transition mires and quaking bogs.
002036	Ballyhoura Mountains SAC	Sensitive features comprise: Northern Atlantic wet heaths with *Erica tetralix*; European dry heaths; and blanket bogs.
002037	Carrigeenamronety Hill SAC	Sensitive features comprise: European dry heaths; and Killarney fern.
002091	Newhall and Edenvale Complex SAC	Sensitive features comprise: caves not open to the public; and lesser horseshoe bat.
002124	Bolingbrook Hill SAC	Sensitive features comprise: Northern Atlantic wet heaths with Erica tetralix; European dry heaths; and species-rich *Nardus* grasslands, on siliceous substrates in mountain areas.
002125	Anglesey Road SAC	Sensitive features comprise species-rich *Nardus* grasslands, on siliceous substrates in mountain areas.
002137	Lower River Suir SAC	Sensitive features comprise: Atlantic salt meadows; water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation; *Hydrophilous* tall herb fringe communities of plains and of the montane to alpine levels; old sessile oak woods with *Ilex* and *Blechnum* in the British Isles; alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior*; *Taxus baccata* woods of the British Isles; freshwater pearl mussel; white-clawed crayfish; sea lamprey; brook lamprey; river lamprey; twaite shad; salmon; and otter.
002165	Lower River Shannon SAC	Sensitive features comprise: sandbanks which are slightly covered by sea water all the time; estuaries; mudflats and sandflats not covered by seawater at low tide; coastal lagoons; large shallow inlets and bays; reefs; perennial vegetation of stony banks; vegetated sea cliffs of the Atlantic and Baltic coasts; *Salicornia* and other annuals colonising mud and sand; Atlantic salt meadows; Mediterranean salt meadows; water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation; *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils; freshwater pearl mussel; river lamprey; sea lamprey brook lamprey; salmon; common bottlenose dolphin; and otter.
002170	Blackwater River (Cork/Waterford) SAC	Sensitive features comprise: estuaries; mudflats and sandflats not covered by seawater at low tide; perennial vegetation of stony banks; *Salicornia* and other annuals colonising mud and sand; Atlantic salt meadows; Mediterranean salt meadows; water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation; old sessile oak woodlands with *Ilex* and *Blechnum* in the British Isles; alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior;* freshwater pearl mussel; white-clawed crayfish; sea lamprey; brook lamprey; river lamprey; twaite shad; salmon; otter; and Killarney fern.
002257	Moanour Mountain SAC	Sensitive features comprise: Northern Atlantic wet heaths with Erica tetralix; and European dry heaths.
002258	Silvermines Mountains West SAC	Sensitive features comprise: Northern Atlantic wet heaths with Erica tetralix; European dry heaths; and calaminarian grasslands of the *Violetalia calaminariae*.
002279	Askeaton Fen Complex SAC	Sensitive features comprise: calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*; and alkaline fens.
002312	Slieve Bernagh Bog SAC	Sensitive features comprise: Northern Atlantic wet heaths with Erica tetralix; European dry heaths; and blanket bogs.
002316	Ratty River Cave SAC	Sensitive features comprise: caves not open to the public; and lesser horseshoe bat.

002318	Knockanira House SAC	Sensitive features comprise lesser horseshoe bat.
002319	Kilkishen House SAC	Sensitive features comprise lesser horseshoe bat.
002351	Moanveanlagh Bog SAC	Sensitive features comprise active raised bogs; degraded raised bogs still capable of natural regeneration; and depressions on peat substrates of the *Rhynchosporion*.
004058	Lough Derg (Shannon) SPA	Sensitive features comprise: cormorant; tufted duck; goldeneye; common tern; and wetland and waterbirds.
004077	River Shannon and River Fergus Estuaries SPA	Sensitive features comprise: cormorant; whooper swan; light-bellied brent goose; shelduck; teal; pintail; scaup; ringed plover; golden plover; grey plover; lapwing; knot; dunlin; black-tailed godwit; curlew; redshank; greenshank; black-headed gull; wigeon; shoveler; and wetland and waterbirds.
004094	Blackwater Callows SPA	Sensitive features comprise: whooper swan; teal; black-tailed godwit; wigeon; and wetland and waterbirds.
004095	Kilcolman Bog SPA	Sensitive features comprise: whooper swan; teal; shoveler; and wetland and waterbirds.
004161	Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA	Sensitive features comprise hen harrier.
004165	Slievefelim to Silvermines Mountains SPA	Sensitive features comprise hen harrier.

NHAs (13) and pNHAs (99) within and within 15 km of Limerick							
Site Code	**Site Name**	**Site Code**	**Site Name**	**Site Code**	**Site Name**	**Site Code**	**Site Name**
000337	Doon Lough NHA	000085	Glanworth Ponds pNHA	001004	Cloonsnaghta Lough pNHA	001561	Awbeg Valley (Castletownroche) pNHA
001352	Bunnaruddee Bog NHA	000092	Kilcolman Bog pNHA	001008	Dromoland Lough pNHA	001794	Blackwater Valley (Kilcummer) pNHA
002186	Grageen Fen And Bog NHA	000174	Curraghchase Woods pNHA	001010	Fin Lough (Clare) pNHA	001829	Ballinaltig Beg Pond pNHA
002361	Moyreen Bog NHA	000239	Castle Lake pNHA	001012	Garrannon Wood pNHA	001844	Ballydonagh Marsh pNHA
002385	Mauherslieve Bog NHA	000374	Moanveanlagh Bog pNHA	001013	Glenomra Wood pNHA	001845	Doonoor Marsh pNHA
002399	Carrigkerry Bogs NHA	000429	Adare Woodlands pNHA	001015	Gortglass Lough pNHA	001846	Ballyneill Marsh pNHA
002401	Gortacullin Bog NHA	000430	Ardagh Church, Newcastlewest (Disused) pNHA	001017	Lough Cullaunyheeda pNHA	001847	Philipston Marsh pNHA
002402	Woodcock Hill Bog NHA	000432	Barrigone pNHA	001025	St.Senan's Lough pNHA	001848	Kilbeg Marsh pNHA
002421	Lough Acrow Bogs NHA	000433	Castleconnell (Domestic Dwelling, Occupied) pNHA	001029	Araglin Valley pNHA	001849	Ballyvorheen Bog pNHA
002448	Knockatarriv/Knockariddera Bogs NHA	000435	Inner Shannon Estuary - South Shore pNHA	001030	Dromore & Bleach Loughs pNHA	001850	Dromsallagh Bog pNHA
002449	Mount Eagle Bogs NHA	000436	Herbertstown Fen pNHA	001049	Eagle Lough pNHA	001851	Bilboa And Gortnageragh River Valleys pNHA
002450	Bleanbeg Bog NHA	000437	Lough Gur pNHA	001072	Priory Wood, Lismire pNHA	001911	Scattery Island pNHA
002454	Lough Gay Bog NHA	000438	Loughmore Common Turlough pNHA	001080	Blackwater Valley (Killavullen) pNHA	001984	Greenane Marsh pNHA
000011	Lough Derg pNHA	000439	Tory Hill pNHA	001133	Nenagh River Gorge pNHA	001996	Skoolhill pNHA
000012	Ballinvonear Pond pNHA	000639	Annacarty Wetlands pNHA	001169	Brown's Farm, Togher Cross Roads pNHA	002001	Knockalisheen Marsh pNHA
000015	Ballycar Lough pNHA	000646	Galtee Mountains pNHA	001197	Keeper Hill pNHA	002035	Glenacurrane River Valley pNHA
000027	Clonderalaw Bay pNHA	000651	Mitchelstown Caves pNHA	001332	Ballylongford Bay pNHA	002036	Ballyhoura Mountains pNHA
000028	Cloonlara House pNHA	000899	Ballindangan Marsh pNHA	001349	Dooneen Wood pNHA	002037	Carrigeenamronety Hill pNHA
000030	Danes Hole, Poulnalecka pNHA	000930	Clare Glen pNHA	001386	Tarbert Bay pNHA	002043	Bansha Wood pNHA
000035	Fort Fergus (Ballynacally) pNHA	000931	Derrygareen Heath pNHA	001425	Ballymorrisheen Marsh pNHA	002048	Fergus Estuary And Inner Shannon, North Shore pNHA
000050	Derrygeeha Lough pNHA	000939	Silvermine Mountains pNHA	001427	Ballinvirick Marsh pNHA	002054	Rosroe Lough pNHA
000051	Lough Gash Turlough pNHA	000948	Aughnaglanny Valley pNHA	001429	Cappagh Fen pNHA	002086	Ballintlea Wood pNHA
000062	Paradise House (Ballynacally) pNHA	000950	Dundrum Sanctuary pNHA	001430	Glen Bog pNHA	002087	Ballynacourty Wood pNHA
000064	Poulnagordon Cave (Quin) pNHA	000956	Inchinsquillib And Dowlings Woods pNHA	001431	Glenastar Wood pNHA	002088	Mountrussell Wood pNHA
000065	Poulnasherry Bay pNHA	000961	Knockanavar Wood pNHA	001432	Glenstal Wood pNHA	002089	Ballyroe Hill & Mortlestown Hill pNHA
000073	Blackwater River Callows pNHA	000971	Scaragh Wood pNHA	001433	Gorteennamrock pNHA	002090	Castleoliver Woods pNHA
000074	Awbeg Valley (Below Doneraile) pNHA	000972	Shanbally Wood pNHA	001434	Heathfield Wood pNHA	002091	Newhall And Edenvale Complex pNHA
000075	Awbeg Valley (Above Doneraile) pNHA	001000	Cahiracon Wood pNHA	001436	Sturamus Island pNHA	002096	Dundrum pNHA