

SEA STATEMENT

FOR THE

LAOIS COUNTY DEVELOPMENT PLAN 2017-2023

STRATEGIC ENVIRONMENTAL ASSESSMENT

for: Laois County Council

Áras an Chontae
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County Laois
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Section 1 Introduction

1.1 Terms of Reference

This is the SEA Statement for Laois County Development Plan 2017-2023 Strategic Environmental Assessment (SEA).

1.2 SEA Definition

SEA is a systematic process of predicting and evaluating the likely environmental effects of implementing a plan, or other strategic action, in order to ensure that these effects are appropriately addressed at the earliest appropriate stage of decision-making on a par with economic and social considerations.

1.3 Legislative Context

Directive 2001/42/EC of the European Parliament and of the Council, of 27 June 2001, on the assessment of the effects of certain plans and programmes on the environment, referred to hereafter as the SEA Directive, introduced the requirement that SEA be carried out on plans and programmes which are prepared for a number of sectors, including land use planning.

The SEA Directive was transposed into Irish Law through the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (Statutory Instrument Number (SI No. 435 of 2004) and the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004). Both sets of Regulations became operational on 21 July 2004. The Regulations have been amended by the European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (SI No. 200 of 2011) and the Planning and Development (SEA) (Amendment) Regulations 2011 (SI No. 201 of 2011).

Article 7 of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004) as amended requires that Strategic Environmental Assessment is undertaken for the preparation of certain Development Plans.

Where SEA is undertaken, the Regulations require that a Statement available to the public and the competent environmental authorities after the making of a Development Plan. This Statement is referred to as an SEA Statement¹.

1.4 Content of the SEA Statement

The SEA Statement is required to include information summarising:

- a) how environmental considerations have been integrated into the Plan;
- b) how the following have been taken into account during the preparation of the Plan:
 - the environmental report,
 - submissions and observations made to the planning authority on the Draft Plan and Environmental Report, and
 - any transboundary consultations [this is not relevant to this SEA]
- c) the reasons for choosing the Plan in the light of the other reasonable alternatives dealt with; and
- d) the measures decided upon to monitor the significant environmental effects of implementation of the Plan.

¹ Department of Environment, Heritage and Local Government (2004) Implementation of SEA Directive (2001/42/EC): Guidelines for Regional Authorities and Planning Authorities, Dublin: Government of Ireland.

1.5 Implications of SEA for the Plan

Laois County Council prepared the Draft Laois County Development Plan in accordance with Sections 11 and 12 of the Planning and Development Act 2000 (as amended).

SEA was undertaken on the Draft Plan in order to comply with the SEA Directive and transposing Regulations – the SEA Environmental Report contains the findings of this assessment. Appropriate Assessment² (AA) was also undertaken on the Draft Plan in order to comply with the Habitats Directive and transposing Regulations – the AA Natura Impact Report contains the findings of this assessment. A Strategic Flood Risk Assessment (SFRA) was also undertaken in order to comply with the Flood Risk Management Guidelines.

The Draft Plan and associated documents, including those relating to the SEA, AA and SFRA processes, were placed on public display and submissions were invited. Submissions were responded to in a Chief Executive's Report. Some submissions resulted in updates being made to SEA and AA documentation.

At a Council meeting, the Members of the Council, by Resolution, proposed Material Alterations to the County Development Plan.

Screenings were undertaken on the Proposed Material Alterations that found that full SEA and AA were not required. The SEA and AA Screening Reports accompanied the Proposed Material Alterations on public display.

At a council meeting, a number of the Proposed Material Alterations were adopted as part of the final Plan (some with further modifications) and a number of Proposed Material Alterations were not adopted.

After the adoption of the Plan, the Environmental Report that was originally placed on public display alongside the Draft Plan was updated in order to take account of both recommendations contained in submissions made during the process and changes to the Draft Plan that were made on foot of submissions. This SEA Statement was also prepared.

Members of the planning authority have taken into account the findings of all relevant SEA output during their consideration of the Draft Plan and before its adoption.

² Appropriate Assessment is an impact assessment process concerning Natura 2000 Sites.

Section 2 How Environmental Considerations were integrated into the Plan

2.1 Introduction

Environmental considerations were integrated into the Plan through:

- Consultations with environmental authorities;
- Communication of environmental sensitivities through the SEA and associated Appropriate Assessment (AA) and Strategic Flood Risk Assessment (SFRA) processes; and
- Suggestions of Plan provisions to mitigate effects.

In addition, far in advance of both the submission of the pre-Draft Plan to the Elected Members for approval and the placing of the Draft Plan (and associated SEA, AA and SFRA documents) on public display, Laois County Council undertook various works in order to inform the preparation of the Draft Plan.

The findings of this strategic work have been integrated into the Draft Plan and will be implemented when it is adopted, contributing towards both environmental protection and management and sustainable development within the County.

Strategic work undertaken by the Council includes background work in relation to Plan Strategies and other provisions for a variety of sectors including: settlement; economic development, enterprise and tourism; movement and transportation; infrastructure; energy and communications; retail; rural development; social, community and cultural development; architectural and archaeological protection; natural heritage; landscape, recreation and amenities; urban design; and rural design.

2.2 Consultations

As environmental authorities identified under the Planning and Development (SEA) Regulations, as amended, the following authorities were sent SEA scoping notices 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:

- Environmental Protection Agency;
- Department of Communications, Energy and Natural Resources;
- Department of Agriculture, Food and Marine;
- Department of Arts, Heritage and the Gaeltacht;
- Carlow County Council;
- Kildare County Council;
- Tipperary County Council;
- Offaly County Council; and
- Kilkenny County Council.

Further detail on submissions made on foot of the SEA scoping notice is provided under Section 3.2.

Furthermore, submissions were made on the Draft Plan and SEA Environmental Report while they were on public display and these resulted in updates being made to the SEA documents (see Section 3.3).

2.3 Communication of environmental sensitivities

2.3.1 Overview

Environmental considerations were integrated into the Draft Plan before it was placed on public display. Environmental sensitivities were mapped in order to identify which areas of the County would be most sensitive to development and would suffer the most adverse effects if growth was to be accommodated in those areas unmitigated.

The sensitivities were communicated to the Plan-making team on a regular basis from the outset of the Plan preparation process. Identifying areas with the most limited carrying capacity within the Plan area helped future growth to be diverted away from these areas.

Sensitivities included the following:

- CORINE Land Cover Data;
- Special Protected Areas, Special Areas of Conservation, Natural Heritage Areas and proposed Natural Heritage Areas;
- Soil Type;
- Areas of Geological and Geomorphological Interest;
- Water Framework Directive (WFD) Status of Surface Waters;
- WFD Status of Groundwater;
- Groundwater Vulnerability;
- Entries to the WFD Register of Protected Areas (RPA);
- Flood Risk Zones;
- Archaeological Heritage - Entries to the Record of Monuments and Places;
- Architectural Heritage - Entries to the Record of Protected Structures, Entries to the National Inventory of Architectural Heritage and Architectural Conservation Areas; and
- Landscape Categories and Protected Views.

A number of these sensitivities are mapped on Figures 2.1, 2.2 and 2.3.

In order to identify where most sensitivities within the County occur, a number of the environmental sensitivities listed above were weighted and mapped overlapping each other. Figure 2.4 provides an overlay of environmental sensitivities for the County.

It is emphasised that the occurrence of environmental sensitivities does not preclude development; rather it flags at a strategic level that the mitigation measures - which have been integrated into the Plan - will need to be complied with in order to ensure that the implementation of the Plan contributes towards environmental protection.

The overlay mapping shows that most of the County is of a low sensitivity.

The greatest extent of higher sensitivity categorisations occurs in the north east of the County, concentrated around the Slieve Bloom Mountains. This is due to a variety of

overlapping and related factors including soil type (peat), landscape value and ecological designations.

Elevated levels of sensitivity can be found along the County's various rivers - including the Rivers Nore and Barrow - due to water status, ecological, flood and visual sensitivities.

Appropriate Assessment

A Stage 2 Appropriate Assessment (AA) has been undertaken alongside the preparation of the Plan. The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC). The AA concluded that the Plan will not have a significant adverse effect on European Sites, and that the integrity of the European Sites, in view of their conservation interests, will not be adversely affected.

The preparation of the Plan, SEA and AA has taken place concurrently and the findings of the AA have informed both the Plan and the SEA. All recommendations made by the AA were integrated into the Plan.

2.3.2 Strategic Flood Risk Assessment

A Strategic Flood Risk Assessment (SFRA) has been undertaken alongside the preparation of the Plan. The requirement for SFRA is provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (DEHLG, 2009).

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

2.4 Suggestions of Plan provisions to mitigate effects

The SEA, AA and SFRA processes suggested various measures for integration into the Plan as provisions (policies and objectives) or parts of provisions in order to mitigate the effects of implementing the Plan and to contribute towards environmental protection and sustainable development.

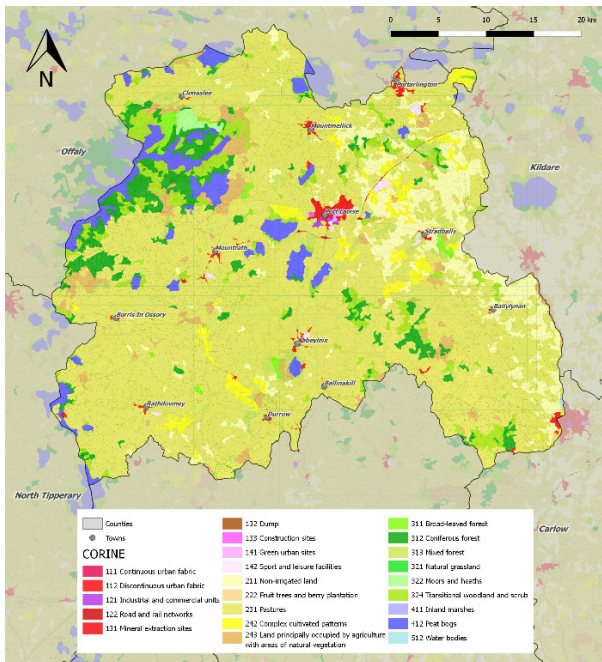
Mitigation measures are measures envisaged to prevent, reduce and, as fully as possible, offset

any significant adverse impacts on the environment of implementing the Plan.

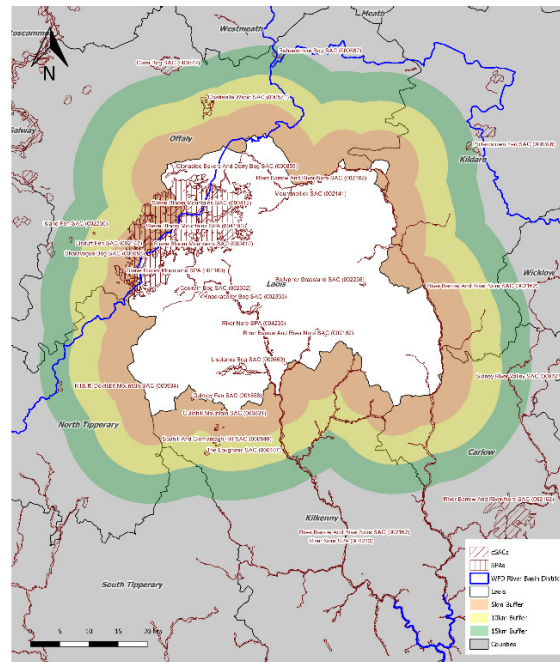
Table 9.1 in the SEA Environmental Report details the key mitigation measure(s) which have been integrated into the Plan under the following environmental headings:

- Biodiversity and flora and fauna
- Population and human health
- Soil
- Water
- Air and Climatic Factors
- Material Assets
- Cultural Heritage
- Landscape

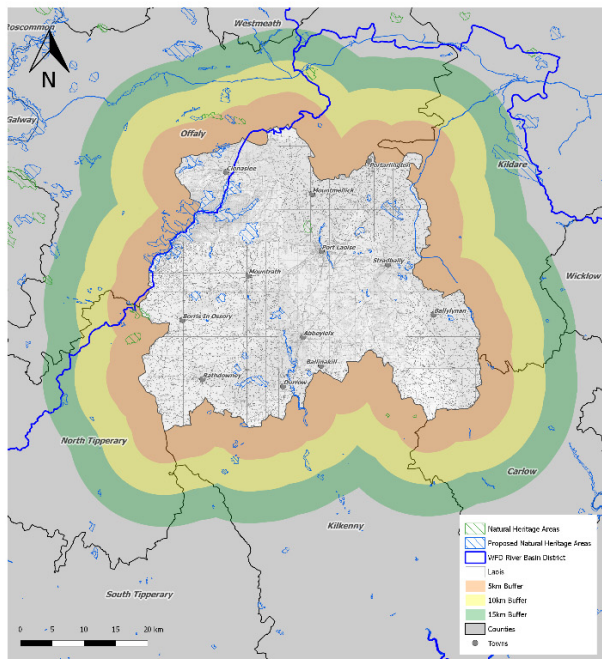
The integration of these measures into the Plan occurred over a number of iterations and was informed by various communications through the SEA, AA and SFRA processes.



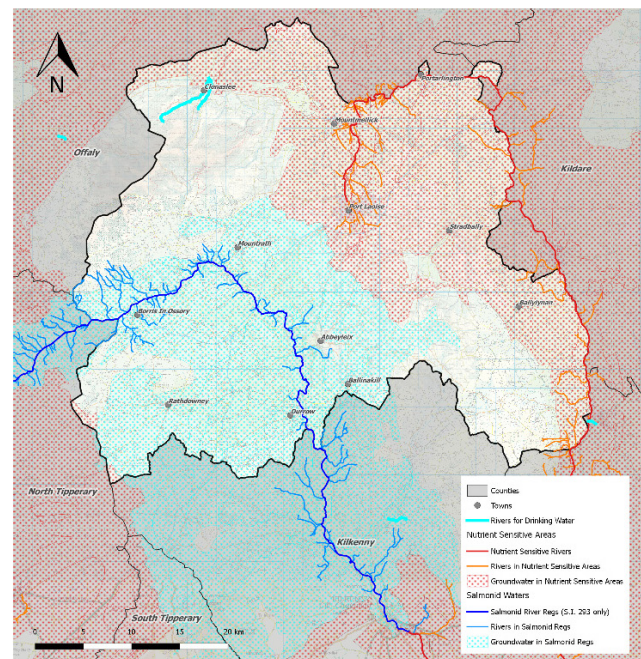
CORINE Land Cover Map



Natura 2000 Sites in the wider area

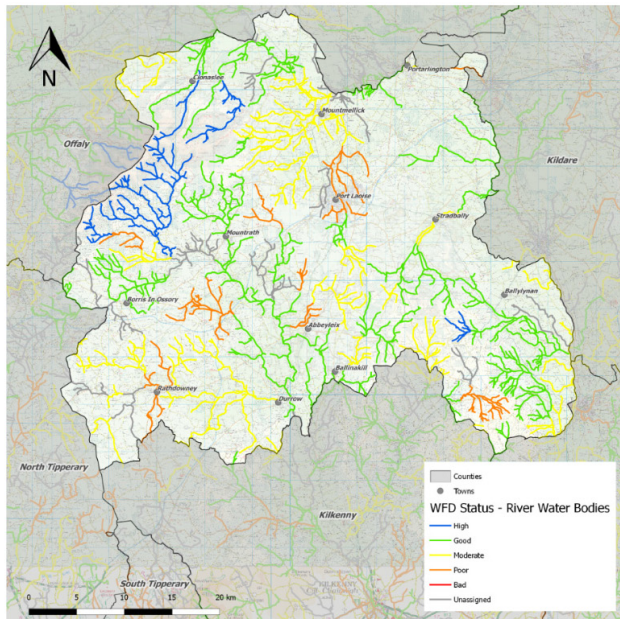


Natural Heritage Areas in the wider area

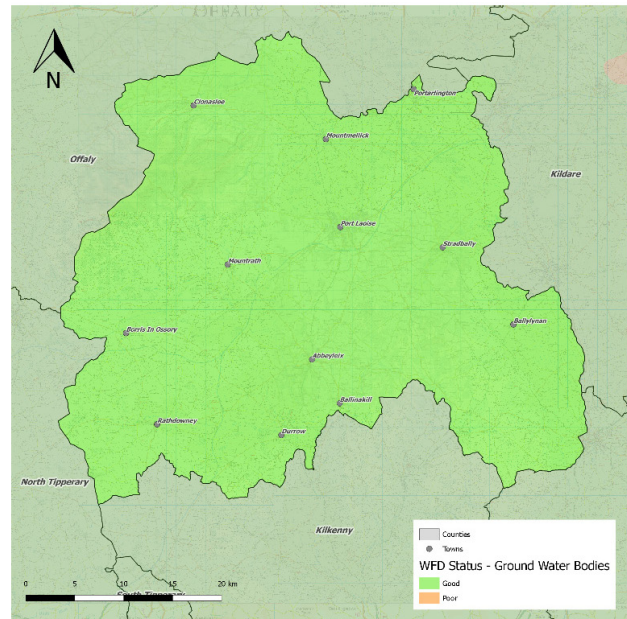


Designated rivers and associated catchments

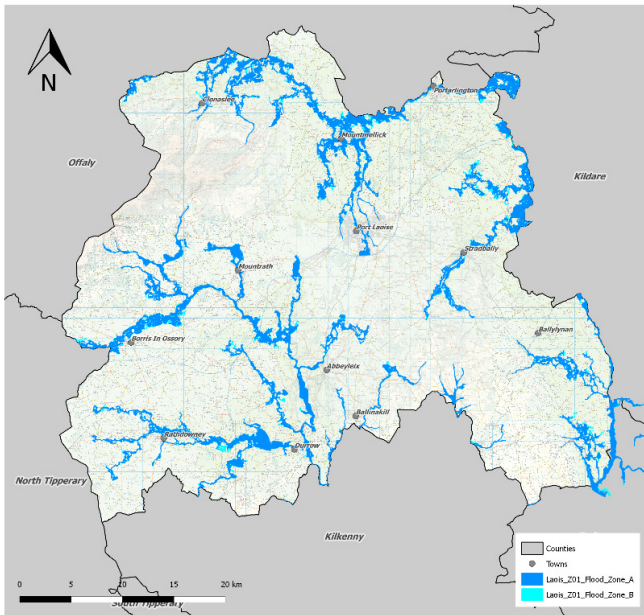
Figure 2.1 Selection of Environmental Sensitivities (1 of 3)



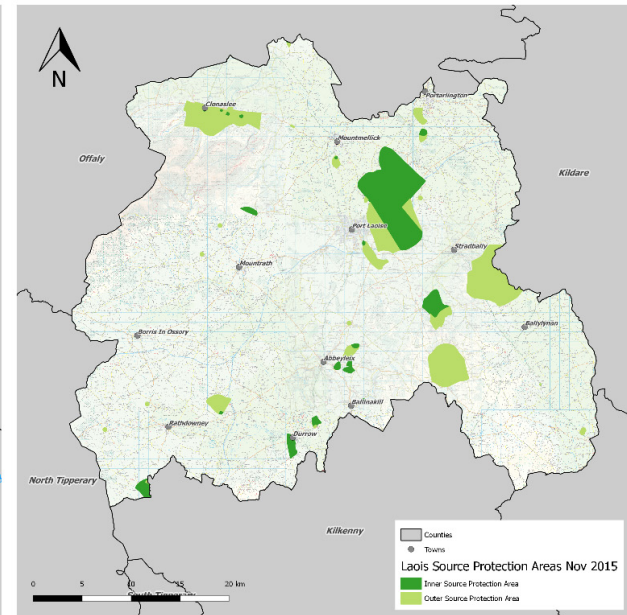
Status of Rivers 2010-2015



Status of Groundwater 2010-2015

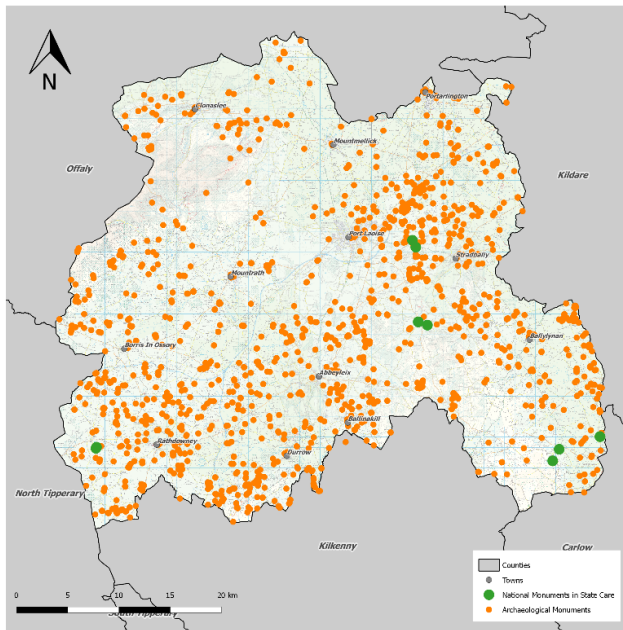


Flood Risk Zones

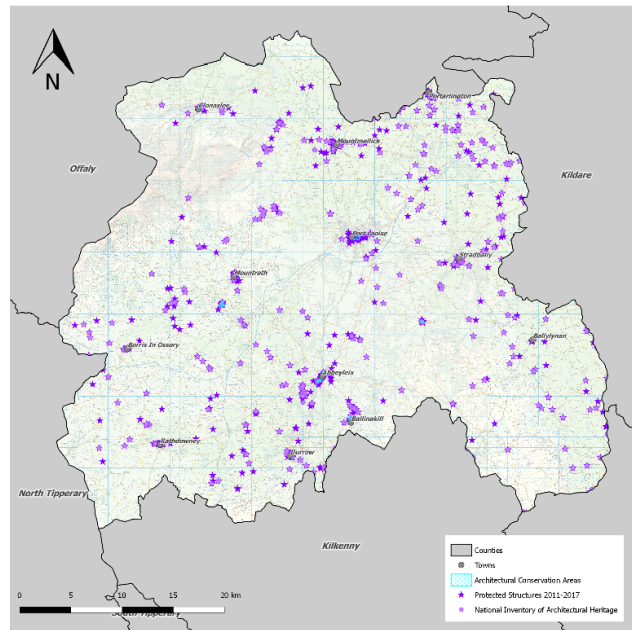


Source Protection Areas

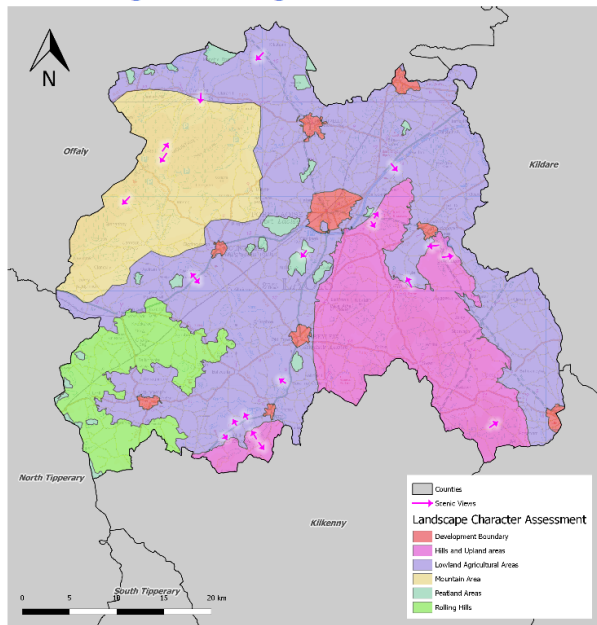
Figure 2.2 Selection of Environmental Sensitivities (2 of 3)



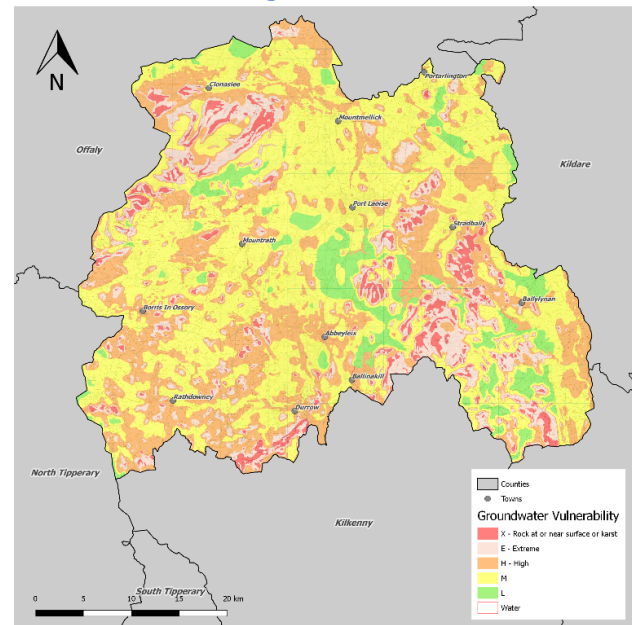
Archaeological Heritage



Architectural Heritage



Landscape Categories and Protected Views



Groundwater Vulnerability

Figure 2.3 Selection of Environmental Sensitivities (3 of 3)

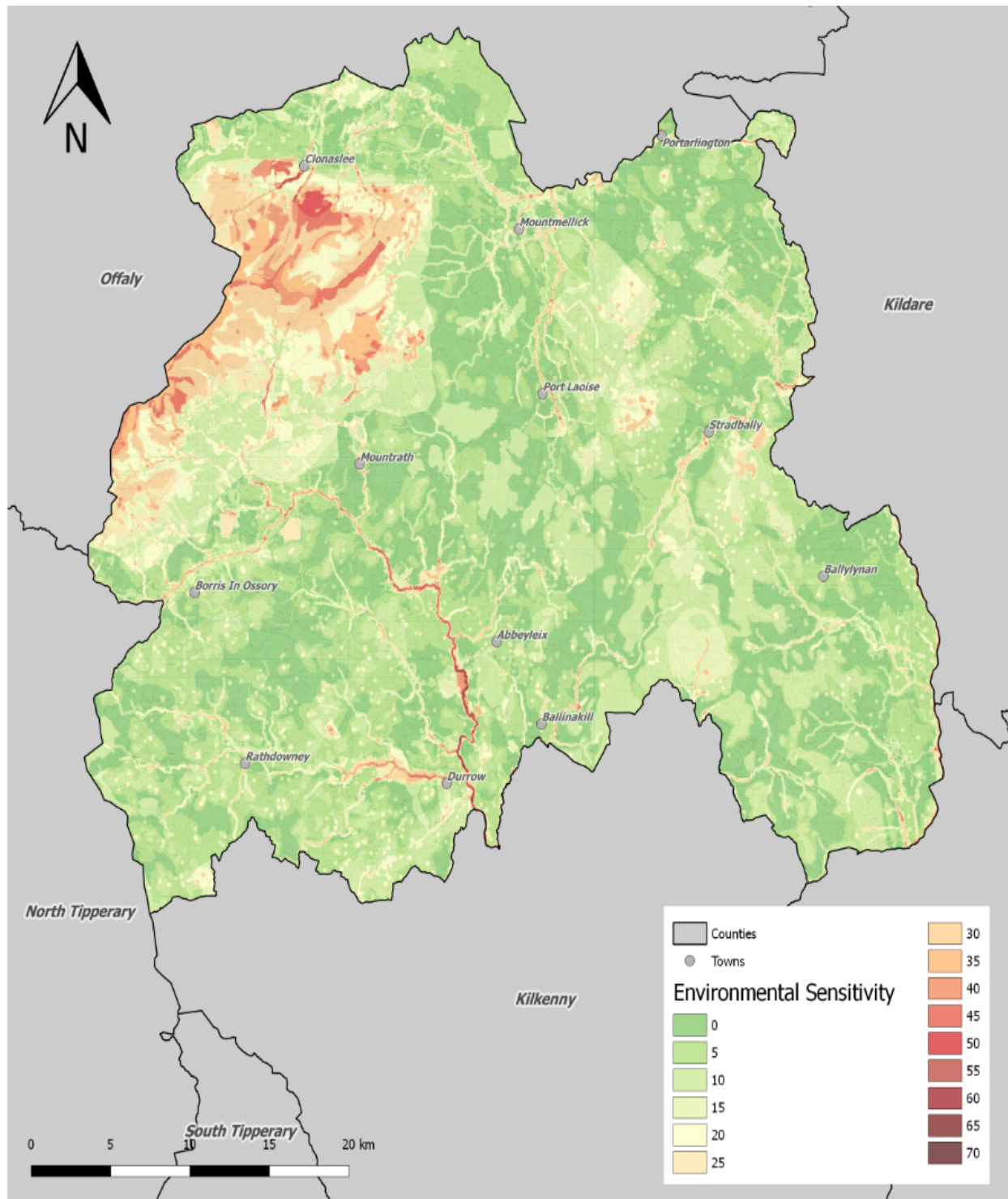


Figure 2.4 Overlay of Environmental Sensitivities

Source: CAAS (2016)

Section 3 Environmental Report and Submissions & Observations

3.1 Introduction

This section details how both the Environmental Report and submissions and observations made to the planning authority on the Environmental Report and SEA process have been taken into account during the preparation of the Plan.

3.2 SEA Scoping Submissions

3.2.1 Introduction

As environmental authorities identified under the Planning and Development (SEA) Regulations, as amended, the following authorities were sent SEA scoping notices 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:

- Environmental Protection Agency;
- Department of Communications, Energy and Natural Resources;
- Department of Agriculture, Food and Marine;
- Department of Arts, Heritage and the Gaeltacht;
- Carlow County Council;
- Kildare County Council;
- Tipperary County Council;
- Offaly County Council; and
- Kilkenny County Council.

Formal SEA Scoping submissions were made by the Department of Arts, Heritage and the Gaeltacht, Environmental Protection Agency and Geological Survey of Ireland (Department of Communications, Energy and Natural Resources) during the SEA Scoping/Draft Plan-preparation process.

These submissions influenced the scope of the assessments as detailed in the final SEA Scoping Report.

Specific comments were provided by the EPA under the following headings:

- SEA WebGIS Search and Reporting Tool
- Recent SEA Related Guidance
- Water Framework Directive
- Groundwater Vulnerability
- Provision of Adequate and Appropriate Critical Infrastructure
- Potential for Cumulative Effects
- Climate Change Adaptation
- Adequate & Appropriate Objectives and where needed Mitigation Measures to address Environmental Sensitivities
- Flood Risk Assessment and Management
- Designated Sites
- The protection of and possible enhancement of Undesignated Biodiversity
- Alternatives
- Radon
- Additional Considerations
- Environmental Authorities

Specific comments were provided by the Department of Arts, Heritage and the Gaeltacht under the following headings:

- Ecologically designated sites
- Protected species
- Article 10 of the Habitats Directive and ecological networks
- Hedgerows and bat roosts
- Rivers, wetlands, protected species and flood risk management
- The provision of appropriate water services
- Roads
- Alien invasive species
- Amenity developments
- Green Infrastructure
- Strategic Environmental Assessment
- Appropriate Assessment

Specific comments were provided by the Geological Survey of Ireland (Department of Communications, Energy and Natural Resources) under the following headings:

- Aggregate Potential
- Landslides
- Geological Heritage

- County Geological Sites
- Promotion of Geological Heritage and County Geological Sites
- Policies and Guidelines
- Tourism potential
- European Communities (Groundwater) Regulations 2010

Submissions made by Irish Water and An Taisce during the Draft Plan-preparation process also informed the scope of the SEA.

3.3 Submissions on the Environmental Report

Furthermore, submissions were made on the Draft Plan and SEA Environmental Report while they were on public display and some of these resulted in updates being made to the SEA and AA documents.

Submissions included those made by the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, the Eastern and Midland Regional Assembly, Gort Archaeology, the Environmental Protection Agency and Geological Survey of Ireland (Department of Communications, Energy and Natural Resources).

Updates made to the SEA Environmental Report on foot of these submissions include the following:

- To include a definition of the term Wildlife Sites;
- To replace relevant references to the "Department of Arts, Heritage and Gaeltacht" with references to the "Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs";
- To amend the "Scenic Views" entry on the legend of Figure 4.14 Landscape Category Map as follows: "Scenic Views and Prospects, indicative locations";
- To include the a summary of submissions, or parts of submissions, made with respect to the SEA throughout the process, including at scoping in the final version of the SEA Environmental Report to accompany the adopted Plan;
- To update the text in Section 8.6.4 "Chapter 5: Economic Development" to indicate that blue and greenways are part of the consideration;
- To cross-reference Table 10.1 from the main Environmental Report by adding the following sentence to Section 5 of NTS: For more details relating to the key Mitigation

and Monitoring Measures, please refer to Table 10.1 in the main body of the Environmental Report;

- To add Figure 4.15 from the main Environmental Report to the NTS;
- To add the following to Additional Plans/Programmes to Appendix I of the SEA Environmental Report:
 - Draft National Bioenergy Plan (DCCAE), currently under preparation.
 - Renewable Electricity Policy and Development Framework (DCCAE), recently commenced
 - National Alternative Fuels Infrastructure for the Transport Sector (DTTAS)
 - Food Wise 2025 (DAFM)
- To add the following terms and description in the Glossary of the SEA:

Geodiversity: Geodiversity (and Geological Heritage) refers to the variety of rocks, minerals, natural processes, landforms, fossils and soils that underlie and determine the character of our landscape and environment. Geology is the science that comprises the study of the Earth, the rocks of which it is composed and the processes by which it evolves. It is, in effect, the story of our planet and every rock holds clues to understanding its evolution.

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
- To replace the existing text at sub-section 4.5.3 County Geological Sites with the following:

The Laois County audit of County Geological Sites (CGS) was conducted in 2016 as an action of the Laois County Development Plan 2011-2017, through a partnership between Geological Survey Ireland, Laois County Council, and the Heritage Council. All geological heritage sites identified by GSI are classified as CGS pending any further NHA designation by NPWS. The inclusion of CGS in the County Development Plan ensures the recognition and appropriate protection of geological heritage. The Geological Survey has identified and documented 30 CGS within County Laois
- To replace caption under **Figure 4.6 Areas of Geological and Geomorphological Interest** by 'Groundwater Source Protection Areas'.

The Appropriate Assessment Natura Impact Report was also updated to include a more detailed evaluation of the sites and assessment of the impact of the objectives and policies.

3.4 Environmental Report

Laois County Council prepared the Draft Laois County Development Plan in accordance with Sections 11 and 12 of the Planning and Development Act 2000 (as amended).

Members of the planning authority have taken into account the findings of all relevant SEA output during their consideration of the Draft Plan and before its adoption.

SEA was undertaken on the Draft Plan in order to comply with the SEA Directive and transposing Regulations – the SEA Environmental Report contains the findings of this assessment. Appropriate Assessment³ (AA) was also undertaken on the Draft Plan in order to comply with the Habitats Directive and transposing Regulations – the AA Natura Impact Report contains the findings of this assessment. A Strategic Flood Risk Assessment (SFRA) was also undertaken in order to comply with the Flood Risk Management Guidelines.

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At a council meeting, a number of the Proposed Material Alterations were adopted as part of the final Plan (some with further modifications) and a number of Proposed Material Alterations were not adopted.

After the adoption of the Plan, the Environmental Report that was originally placed on public display alongside the Draft Plan was updated in order to take account of both recommendations contained in submissions made during the process and changes to the Draft Plan that were made on foot of submissions. This SEA Statement was also prepared.

³ Appropriate Assessment is an impact assessment process concerning Natura 2000 Sites.

Section 4 Alternative Scenarios and the Plan

4.1 Summary Description of Alternatives

One of the critical roles of the SEA is to facilitate an evaluation of the likely environmental consequences of a range of alternative scenarios for accommodating future growth in County Laois. Three alternative scenarios were considered for the County Development Plan.

Scenario One 'Strong Growth, Weak Plans'

Scenario 1 (Strong Growth, Weak Plans) envisages a return to strong economic growth – especially in east Leinster. However, this scenario illustrates the environmental consequences of a weak planning response.

This projected growth will see increased demand for cheaper housing within the 40-minute commute from the M50 leading to increased housing demand in northeast Laois. This demand would be met by un-coordinated growth of new housing development – both in settlements and in rural areas throughout the 8-10km zone on each side of the M7. The same forces are likely to give rise to uncoordinated and dispersed commercial retail and light industrial development within the outskirts of Portarlinton, Portlaoise, Mountmellick, Stradbally and even Abbeylax. Such developments are even more likely to occur in the environs of major M7 junctions.

This scenario will lead to strong pressure adjacent to settlements such as Mountrath and Abbeylax, as well as to strategic transportation corridors. These areas are also likely to experience competition with expanding dairy and stud farm uses, as well as competition with expanding/intensifying tillage land uses. There will be persistent, but dispersed pressure for development in rural areas.

Dispersed development would not be adequately served by services and would result in increases in levels of unsustainable mobility and associated interactions with emissions to air. Dispersed development would be unlikely to be served with appropriate levels of infrastructure.

This scenario will lead to low levels of change in areas of mixed farming and forested uplands, apart from increased pressure on the area for amenity use. There is little likelihood of expansion or intensification of agriculture or forestry. Potential intensification of energy amenities and tourism projects is low in this Scenario.

Scenario Two 'Uneven Growth, Uneven Plans'

This Scenario envisages a return to strong economic demand but with underachievement of growth in both urban and rural potential due to lack of co-ordination. This leads to poorly targeted and excessively dispersed investment that causes congestion and competition, resulting in early progress to slow and stall. Sustainable mobility and associated interactions with emissions to air would not be maximised under this scenario.

In this scenario the towns of Portlaoise, Portarlinton, Mountmellick, Graiguecullen and other larger settlements will act as nuclei for strong early growth of both settlement and enterprise due to stability and coordination. The weaker plans will reduce certainty for concentrated investments in infrastructure that will gradually impede progress and reduce the regional competitiveness of enterprises.

While there will be strong pressure adjacent to settlements and Strategic Transportation Corridors – this will fail to achieve its full potential due to excessive competition for funding of

sustaining infrastructure. There will be a steady pattern of conflicts between intensification of larger-scale, specialist's agriculture and poorly coordinated settlement and enterprise developments at urban/ rural fringes.

Many stronger rural areas will prosper with intensifications in areas of specialist tillage – especially near major settlements such as Killeshin and Graiguecullen and transportation corridors such as the N8, and the River Barrow.

This scenario will lead to low levels of change in areas of mixed farming and forested uplands, apart from increased pressure on the area for amenity use. There is little likelihood of expansion or intensification of agriculture or forestry. Potential intensification of energy amenities and tourism projects is low in this Scenario. There will be dispersed pressure for development in rural areas.

Scenario Three 'Balanced Growth, Strong Plans'

Scenario 3 (Balanced Growth, Strong Plans), envisions the County experiencing strong and resilient growth of different but complementary character in different areas. A cluster of larger settlements centred on Portlaoise in the northeast will capitalise on a regionally significant confluence of major transportation, energy and water service supplies. There will also be a smaller one centred on Graiguecullen in the southeast. Rural areas will see the emergence, expansion and consolidation of a series of strong sectors of specialisations in tillage and dairying. The rivers and uplands will offer opportunities for extensification into a mixed economy based on dispersed rural settlement as well as lower intensity agriculture, forestry as well as recreation and some tourism.

In this scenario the areas of Portlaoise, Portarlington, Mountmellick, Graiguecullen and other urban environs will act as nuclei for strong and sustained growth of both settlement and enterprise due to stability and coordination. The strong plans will increase certainty and will attract cost-effective regional investment in an infrastructure-rich node. This will create a 'virtuous cycle' of further increasing enterprise providing employment for a growing population.

The M7 and M9 Strategic Transportation Corridor Environs will provide orderly transitions between areas of intensifying urban areas and areas of specialist agriculture.

Stronger rural areas such as mixed farmland and settlements with links to Strategic Transportation Corridors will prosper with intensifications in areas of specialist tillage – especially near major settlements and transportation corridors.

This scenario will lead to low levels of change in areas of mixed farming and forested uplands – apart from increased pressure on the area for amenity use. There is little likelihood of expansion or intensification of agriculture or forestry. Potential intensification of energy amenities and tourism projects is low in this Scenario. There will be dispersed pressure for development in rural areas.

4.2 Summary Evaluation and Reasons for choosing the Draft Plan in light of the other alternatives dealt with

Table 4.1 summarises the evaluation of environmental effects of the alternative scenarios that is provided in the SEA Environmental Report.

The provisions of the alternatives are evaluated using compatibility criteria in order to determine how they would be likely to affect the status of the Strategic Environmental Objectives (SEOs).

SEOs are methodological measures against which the environmental effects of the Plan can be tested. If complied with in full, SEOs would result in an environmentally neutral impact from implementation of the Plan. The SEOs are set out under a range of topics and are used as standards against which the provisions of the Plan can be evaluated in order to help identify areas in which potential adverse impacts may occur. SEOs are distinct from the objectives of the Plan and are developed from international and national policies that generally govern environmental protection objectives. SEOs used in the assessment are as follows:

B1: *To ensure compliance with the Habitats and Birds Directives with regard to the protection of Natura 2000 Sites and Annexed habitats and species⁴*

B2: *To ensure compliance with Article 10 of the Habitats Directive with regard to the management of features of the landscape which - by virtue of their linear and continuous structure or their function act as stepping stones (designated or not) - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species*

B3: *To avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites and to ensure compliance with the Wildlife Acts 1976-2010 with regard to the protection of listed species*

PHH1: *To protect populations and human health from exposure to incompatible landuses*

S1: *To avoid damage to the hydrogeological and ecological function of the soil resource*

W1: *To maintain and improve, where possible, the quality and status of surface waters*

W2: *To prevent pollution and contamination of ground water*

W3: *To comply as appropriate with the provisions of the Planning System and Flood Risk Management: Guidelines for Planning Authorities (DEHLG, 2009)*

M1: *To serve new development with adequate and appropriate wastewater treatment*

M2: *To serve new development with adequate drinking water that is both wholesome and clean*

M3: *To reduce waste volumes, minimise waste to landfill and increase recycling and reuse*

C1: *To reduce travel related emissions to air and to encourage modal change from car to more sustainable forms of transport*

CH1: *To protect archaeological heritage including entries to the Record of Monuments and Places and/or their context*

CH2: *To protect architectural heritage including entries to the Record of Protected Structures and Architectural Conservation Areas and their context*

L1: *To minimise significant adverse visual impacts within and adjacent to the County*

⁴ 'Annexed habitats and species' refer to those listed under Annex I, II & IV of the EU Habitats Directive and Annex I of the EU Birds Directive.

The interactions identified are reflective of likely significant environmental effects⁵:

1. Interactions that would be likely to improve the status of a particular SEO would be likely to result in a significant positive effect on the environmental component to which the SEO relates. The extent of positive effects that would be likely to occur varies and there are three 'likely to improve columns'.
2. Interactions that would potentially conflict with the status of an SEO and would be likely to be mitigated are divided into three groups:
 - Interactions that would conflict the least with the status of SEOs – these would be likely to be mitigated to a greater degree and significant adverse effects would be less likely;
 - Interactions that would conflict more with status of SEOs - these would be likely to be mitigated to an intermediate degree and significant adverse effects would be more likely.
 - Interactions that would conflict the most with status of SEOs - these would be likely to be mitigated to a lesser degree and significant adverse effects would be more likely.

The scenarios suggest that the principal differences that are likely to arise will be a return to strong economic growth and associated growth in urban commercial centres, as well as rural agriculture specialisation and extensification. In Scenario 1 and Scenario 2, the plans for these areas will be less effective - leading to environmental pressures. Scenario Three, by contrast, envisages plan-led development that will significantly improve synergies causing increased, but balanced and more sustainable growth throughout the County, with least impacts on the environment.

⁵ These effects include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

Table 4.1 Summary Evaluation of Alternative Scenarios against SEOs

	Likely to Improve status of SEOs to a greater degree	Likely to Improve status of SEOs to an intermediate degree	Likely to Improve status of SEOs to a lesser degree	Least Potential Conflict with status of SEOs - likely to be mitigated to greater degree, significant adverse effects less likely	More Potential Conflict with status of SEOs - likely to be mitigated to an intermediate degree, significant adverse effects more likely	Most Potential Conflict with status of SEOs - likely to be mitigated to lesser degree, significant adverse effects more likely
Scenario 1 Strong Growth, Weak Plans			B1 B2 B3 PHH1 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1			B1 B2 B3 PHH1 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1
Scenario 2 Uneven Growth, Uneven Plans		B1 B2 B3 PHH1 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1			B1 B2 B3 PHH1 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1	
Scenario 3 Balanced Growth, Strong Plans	B1 B2 B3 PHH1 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1			B1 B2 B3 PHH1 S1 W1 W2 W3 M1 M2 M3 C1 CH1 CH2 L1		

Alternative Scenario 3 contributes the greatest extent towards sustainable development and environmental protection and management and is the preferred and selected alternative scenario that has been developed for the strategy for the Draft Plan.

Table 4.2 details the overall findings of the assessment with respect to this preferred and selected alternative scenario.

By complying with appropriate mitigation measures - including those that have been integrated into the Draft Plan (see Section 9 of this report) – potentially significant adverse environmental effects that could arise as a result of implementing the Plan would be likely to be avoided, reduced or offset.

Table 4.2 Overall Findings – Effects arising from the Preferred Alternative Scenario for the Plan

Environmental Component	Significant Positive Effect, likely to occur	Potential Effect, if unmitigated	Residual Adverse Effects
Biodiversity and Flora and Fauna	<ul style="list-style-type: none"> Facilitates lower overall effects on ecology (including designated sites, ecological connectivity, habitats) – due to increased utilisation of lands within existing development boundaries and use of existing utilities and brownfield sites. Facilitates protection of ecology with respect to the provision of water services. Facilitates contribution towards the protection of ecology as a result of contributing towards the protection of environmental vectors, including air and water. 	<ul style="list-style-type: none"> Arising from both construction and operation of development and associated infrastructure: loss of/damage to biodiversity in designated sites (including Natura 2000 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. Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species. 	<ul style="list-style-type: none"> Loss of an extent of non-protected habitats and species arising from the replacement of semi-natural land covers with artificial surfaces. Losses or damage to ecology (these would be in compliance with relevant legislation).
Population and Human Health	<ul style="list-style-type: none"> Facilitates protection of human health with respect to the provision of water services and the provision of transport infrastructure integrated with land use planning – and associated interactions with sustainable mobility, emissions and energy usage. Facilitates contribution towards the protection of human health as a result of contributing towards the protection of environmental vectors, including air and water. 	<ul style="list-style-type: none"> Potential interactions if effects upon environmental vectors such as water and air are not mitigated 	<ul style="list-style-type: none"> Potential interactions with residual effects on environmental vectors. This has been mitigated by provisions which have been integrated into the Plan, including those relating to sustainable mobility and infrastructural provision.
Soil	<ul style="list-style-type: none"> Facilitates lower overall effects on soil – due to increased utilisation of lands within existing development boundaries and use of existing utilities and brownfield sites. Facilitates protection of soil with respect to the provision of water services. 	<ul style="list-style-type: none"> Damage to the hydrogeological and ecological function of the soil resource. 	<ul style="list-style-type: none"> Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces.

Environmental Component	Significant Positive Effect, likely to occur	Potential Effect, if unmitigated	Residual Adverse Effects
Water	<ul style="list-style-type: none"> Facilitates lower effects on ground and surface waters due to higher levels of development within established and serviced settlement centres that have installed/upgraded water services capable of delivering Water Framework Directive targets. 	<ul style="list-style-type: none"> Adverse impacts upon the status of water bodies arising from changes in quality, flow and/or morphology. Increase in the risk of flooding. 	<ul style="list-style-type: none"> Increased loadings as a result of development to be in compliance with River Basin Management Plans. Flood related risks remain due to uncertainty with regard to extreme weather events.
Material Assets	<ul style="list-style-type: none"> Provides for planned infrastructure including water services infrastructure and transport infrastructure. Make most use of existing water services and drainage infrastructure. 	<ul style="list-style-type: none"> Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts). Failure to comply with drinking water regulations and serve new development with adequate drinking water that is both wholesome and clean (water services infrastructure and capacity is needed to ensure the mitigation of potential conflicts) Increases in waste levels 	<ul style="list-style-type: none"> Residual wastes to be disposed of in line with higher level waste management policies.
Air and Climatic Factors	<ul style="list-style-type: none"> Facilitates contribution towards a shift from car to more sustainable and non-motorised transport modes. Facilitates contribution towards reducing congestion and associated adverse effects on air quality. Facilitates contribution towards reductions in travel related greenhouse gas and other emissions to air. 	<ul style="list-style-type: none"> Emissions to air including greenhouse gas emissions and other emissions. 	<ul style="list-style-type: none"> An extent of travel related greenhouse gas and other emissions to air. This has been mitigated by provisions which have been integrated into the Plan, including those relating to sustainable mobility.
Cultural Heritage	<ul style="list-style-type: none"> Contribution towards the protection of cultural heritage by facilitating compliance with protection legislation. 	<ul style="list-style-type: none"> Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities. 	<ul style="list-style-type: none"> Potential alteration to the context and setting of architectural heritage however these will occur in compliance with legislation. Potential alteration to the context and setting of archaeological heritage however this will occur in compliance with legislation. Potential loss of unknown archaeology however this loss will be mitigated by measures integrated into the Draft Plan.
Landscape	<ul style="list-style-type: none"> Contribution towards the protection of cultural heritage by facilitating compliance with objectives relating to landscape management and protection. 	<ul style="list-style-type: none"> Occurrence of adverse visual impacts and conflicts with the appropriate protection of statutory designations relating to the landscape. 	<ul style="list-style-type: none"> None. The Draft Plan contributes towards the protection of landscape designations. The County's landscapes will change overtime as a result of natural changes in vegetation cover combined with new developments.

Section 5 Monitoring Measures

5.1 Introduction

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

Monitoring can enable, at an early stage, the identification of unforeseen adverse effects and the undertaking of appropriate remedial action.

5.2 Indicators and Targets

Monitoring is based around indicators that allow quantitative measures of trends and progress over time relating to the Strategic Environmental Objectives that are detailed in the SEA Environmental Report and used in the evaluation. Each indicator to be monitored is accompanied by the target(s) that were identified with regard to the relevant strategic actions.

Table 5.1 overleaf shows the indicators and targets which have been selected for monitoring the likely significant environmental effects of implementing the Plan, if unmitigated.

The Monitoring Programme may be updated to deal with specific environmental issues - including unforeseen effects - as they arise. Such issues may be identified by the Council or identified to the Council by other agencies.

5.3 Sources

Measurements for indicators generally come from existing monitoring sources. Existing monitoring sources include those maintained by the Council and the relevant authorities e.g. the Environmental Protection Agency, the National Parks and Wildlife Service and the Central Statistics Office.

Internal monitoring of the environmental effects of grants of permission in the Council will provide monitoring of various indicators

and targets on a grant of permission by grant of permission⁶ basis. Where significant effects - including positive, negative, cumulative and indirect - have the potential to occur upon, for example, entries to the RMP, entries to the RPS or ecological networks as a result of the undertaking of individual projects or multiple individual projects such instances should be identified and recorded and should feed into the monitoring evaluation.

5.4 Reporting and Responsibility

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

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 corrective action.

Laois County Council is responsible for the implementation of the SEA Monitoring Programme including:

- Linking SEA monitoring output with the mid-term review of the Development Plan;
- Monitoring specific indicators and identifying any significant effects, including cumulative effects;
- Reviewing the effectiveness of monitoring/mitigation measures during the lifetime of the Plan; and
- Identifying any cumulative effects.

⁶ The likely significant effects of development proposals on environmental sensitivities are further determined during the development management process. By documenting this determination (e.g. whether a proposed development will impact upon a Protected Structure or whether a proposed development can be adequately served with water services) while granting permissions, or at a later date, the requirement to monitor the effects of implementing the Plan can be achieved.

5.5 Thresholds

Thresholds at which corrective action will be considered include:

- The occurrence of flood events;
- Court cases taken by the Department of Arts, Heritage and the Gaeltacht regarding impacts upon archaeological heritage including entries to the RMP;
- Complaints received from statutory consultees regarding avoidable environmental impacts resulting from development which is granted permission under the Plan;
- Boil notices on drinking water; and
- Fish kills.

Table 5.1 Selected Indicators, Targets and Monitoring Sources

Environmental Component	Selected Indicator(s)	Selected Target(s)	Source (Frequency)
Biodiversity, Flora and Fauna	B1: Conservation status of habitats and species as assessed under Article 17 of the Habitats Directive	B1: Maintenance of favourable conservation status for all habitats and species protected under National and International legislation to be unaffected by implementation of the Plan ⁷	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). Department of Arts, Heritage and the Gaeltacht report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive (every 6 years). Department of Arts, Heritage and the Gaeltacht's National Monitoring Report for the Birds Directive under Article 12 (every 3 years). Consultations with the NPWS (at monitoring evaluation - see Section 5.4).
	B2: Percentage loss of functional connectivity without remediation resulting from development provided for by the Plan	B2: No significant ecological networks or parts thereof which provide functional connectivity to be lost without remediation resulting from development provided for by the Plan	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). CORINE mapping resurvey (every c. 5 years). Review of Council Ecological Network Mapping
	B3i: Number of significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Plan	B3i: Avoid significant impacts on relevant habitats, species, environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from development provided for by the Plan	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). Consultations with the NPWS (at monitoring evaluation - see Section 5.4).
	B3ii: Number of significant impacts on the protection of listed species	B3ii: No significant impacts on the protection of listed species	
Population and Human Health	PHH1: Occurrence (any) of a spatially concentrated deterioration in human health arising from environmental factors resulting from development provided for by the Plan, as identified by the Health Service Executive and Environmental Protection Agency	PHH1: No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan	<ul style="list-style-type: none"> Consultations with EPA and Health Service Executive (at monitoring evaluation - see Section 5.4).
Soil	S1: Soil extent and hydraulic connectivity	S1: To minimise reductions in soil extent and hydraulic connectivity	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).

⁷ Except as provided for in Section 6(4) of the Habitats Directive, viz. There must be:

- (a) no alternative solution available;
- (b) imperative reasons of overriding public interest for the plan to proceed; and
- (c) adequate compensatory measures in place.

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Environmental Component	Selected Indicator(s)	Selected Target(s)	Source (Frequency)
Water	W1: Classification of Overall Status (comprised of ecological and chemical status) under the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No. 272 of 2009)	W1: Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status' ⁸ by 2015	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). Data issued under the Water Framework Directive Monitoring Programme for Ireland (multi-annual).
	W2: Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC	W2: Not to affect the ability of groundwaters to comply with Groundwater Quality Standards and Threshold Values under Directive 2006/118/EC	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). Data issued under the Water Framework Directive Monitoring Programme for Ireland (multi-annual).
	W3: Number of incompatible developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk	W3: Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk in compliance with <i>The Planning System and Flood Risk Management Guidelines for Planning Authorities</i>	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).
Material Assets	M1: Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Plan	M1: All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).
	M2: Number of non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health as a result of implementing the Plan	M2: No non-compliances with the 48 parameters identified in the European Communities (Drinking Water) Regulations (No. 2) 2007 which present a potential danger to human health as a result of implementing the Plan	<ul style="list-style-type: none"> EPA The Provision and Quality of Drinking Water in Ireland reports (multi-annual). EPA Remedial Action List (every quarter).
	M3i: Total collected and brought household waste M3ii: Packaging recovered (t) by self-complying packagers	M3i: Minimise increases in and, where possible, reduce household waste generation M3ii: Maximise increases in packaging recovered (t) by self-complying packagers	<ul style="list-style-type: none"> EPA National Waste Reports EPA Ireland's Environment Reports
Air and Climatic Factors	C1: Percentage of population travelling to work, school or college by public transport or non-mechanical means	C1: An increase in the percentage of the population travelling to work, school or college by public transport or non-mechanical means	<ul style="list-style-type: none"> CSO Population Data (every c. 5 years).

⁸ Good status as defined by the WFD equates to approximately Q4 in the current national biological classification of rivers as set out by the EPA.

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Environmental Component	Selected Indicator(s)	Selected Target(s)	Source (Frequency)
Cultural Heritage	CH1: Percentage of entries to the Record of Monuments and Places - including Areas of Archaeological Potential and Significance (and the context of the above within the surrounding landscape where relevant) - protected from significant adverse effects arising from new development granted permission under the Plan	CH1: Protect entries to the Record of Monuments and Places - including Areas of Archaeological Potential and Significance (and their context of the above within the surrounding landscape where relevant) from significant adverse effects arising from new development granted permission under the Plan	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). Consultation with Department of Arts, Heritage and the Gaeltacht (at monitoring evaluation - see Section 5.4).
	CH2: 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	CH2: Protect entries to the Record of Protected Structures and Architectural Conservation Areas and their context from significant adverse effects arising from new development granted permission under the Plan	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). Consultation with Department of Arts, Heritage and the Gaeltacht (at monitoring evaluation - see Section 5.4).
Landscape	L1: Number of complaints received from statutory consultees regarding avoidable adverse visual impacts on the landscape resulting from development which is granted permission under the Plan	L1: No developments permitted which result in avoidable adverse visual impacts on the landscape resulting from development which is granted permission under the Plan	<ul style="list-style-type: none"> Internal monitoring of likely significant environmental effects of grants of permission (grant by grant).