SEA Environmental Report

Appendix IV – Non-Technical Summary

FOR

Relevant Proposed Material Alterations

TO THE

Draft Longford County Development Plan 2021-2027

for: **Longford County Council**

Great Water Street

Longford

County Longford

by: **CAAS Ltd.**

1st Floor

24-26 Ormond Quay Upper

Dublin

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Section 1 Introduction and Terms of Reference

This is the Non-Technical Summary of the Environmental Report for relevant Proposed Material Alterations to the Draft Longford County Development Plan 2021-2027 (hereafter referred to as 'the Plan'). The purpose of the Environmental Report is to provide a clear understanding of the likely environmental consequences of decisions regarding the Proposed Material Alterations. The Environmental Report has been prepared as part of a Strategic Environmental Assessment (SEA) process for the Proposed Material Alterations.

The Proposed Material Alterations were screened for the need to undertake SEA. Certain Proposed Material Alterations were determined as requiring full SEA. The SEA Screening Determination accompanies the SEA Environmental Report and the Proposed Material Alterations document. Appendix III to the SEA Environmental Report comprises the SEA Screening Report that was prepared to inform the SEA Screening Determination.

This SEA Environmental Report provides the findings of the assessment and will be placed on public display alongside the Proposed Material Alterations. The Elected Members will be required to take account of this document, the Proposed Material Alterations and any submissions received on these after public display.

The SEA is being undertaken in order to comply with Section 12 of the Planning and Development Act, as amended.

What is SEA?

SEA is a systematic process of predicting and evaluating the likely environmental effects of implementing a proposed 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, social and other considerations.

Why is SEA needed? The Benefits

The SEA for the Draft Plan provided the planning authority and the public a guide to what are generally the best areas for development in the County.

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

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

An overlay of environmental sensitivities in County Longford is shown on Figure 1.1.

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

The most sensitive areas in the County include:

- The County's western and south western boundaries, reflecting the sensitive nature of the River Shannon and its Lough Forbes and Lough Ree, which are subject to various designations (including those relating to water, ecology and landscape), heavily protected and sources of flood risk;
- Other lakes and rivers throughout the County including Lough Kinale, Derragh Lough and Lough Gowna and the Rivers Camlin and Inny – as a result of water status, nutrient sensitivity, drinking water source, ecological designations and/or sources of flood risk;
- Peatland areas, due to their ecological, hydrological and amenity characteristics, such as Clooneen Bog, Ballykenny-Fisherstown Bog and Brown Bog; and
- Areas throughout the County on account of areas of elevated groundwater vulnerability.

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

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

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

Difficulties Encountered during the SEA process

No significant difficulties have been encountered during the undertaking of the assessment to date. There was limited water services information available for some settlements within the County however objectives requiring the provision of appropriate levels of water services alongside new development have been integrated into the Draft Plan.

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

What happens at the end of the process?

The SEA Environmental Report prepared for the Draft Plan will be finalised in advance of adoption of the Plan taking into account, among other things, the content of the SEA Environmental Report for the Proposed Material Alterations to which this Non-Technical Summary relates. An SEA Statement will also be prepared that will summarise, inter alia, how environmental considerations have been integrated into the Plan.

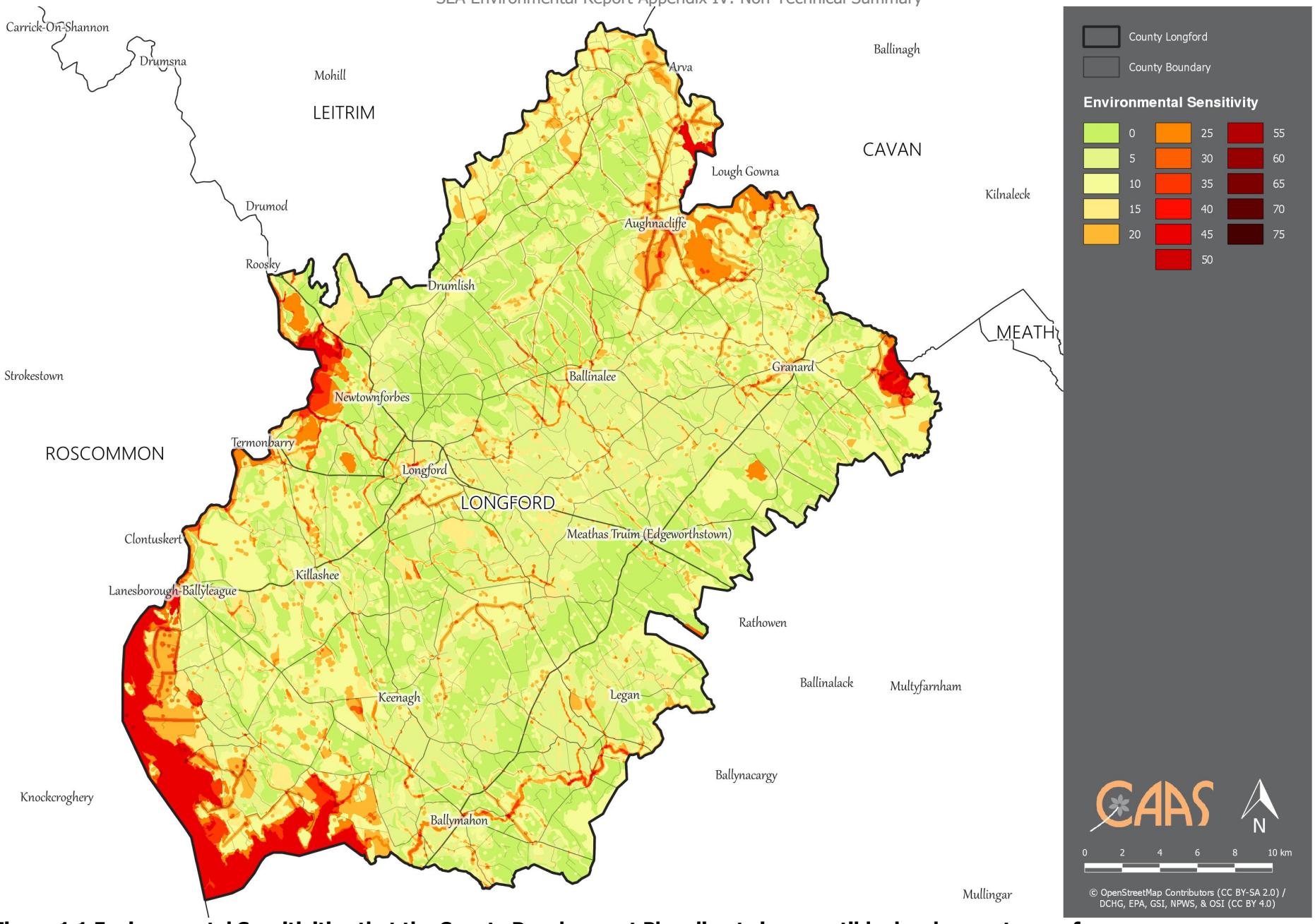

Figure 1.1 Environmental Sensitivities that the County Development Plan directs incompatible development away from

Section 2 The Draft Plan and associated Proposed Material Alterations

2.1 Introduction

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

2.2 Content of the Draft Plan

The Draft Plan includes a Written Statement, that provides the development policies, Core Strategy and mandatory and discretionary objectives for different policy areas addressed by the Development Plan. The Written Statement is divided into 16 separate chapters setting out various policies and objectives under the headings of:

- Chapter 1: Introduction and Strategic Context
- Chapter 2: County Profile
- Chapter 3: Climate Change
- Chapter 4: Core, Settlement and Housing Strategies
- Chapter 5: Transport, Infrastructure, Energy and Communications
- Chapter 6: Regeneration
- Chapter 7: Placemaking
- Chapter 8: Economic Development
- Chapter 9: Rural Economy
- Chapter 10: Tourism
- Chapter 11: Built and Cultural Heritage
- Chapter 12: Natural Heritage and Environment
- Chapter 13: Green Infrastructure
- Chapter 14: Landscape Character
- Chapter 15: Monitoring, Evaluation and Implementation
- Chapter 16: Development Management Standards

2.3 Overall Vision and Aims

The Vision of the Draft Plan is: 'to set out a framework for the sustainable physical development of the County, ensuring the conservation and protection of the built and natural environment, while providing in an equitable manner for all our people within the County'.

As such the Draft Plan provides for an overall strategy for the social, economic, cultural and physical development of the County. In order to achieve this, the Plan aims to:

1. Implement relevant national and regional development policy provisions at a County level;
2. Strengthen and develop the economic, social and cultural life of the county in a way that can be sustained to safeguard the quality of life for future generations;
3. Provide a development framework which defines acceptable forms of development and appropriate locations.

2.4 Core Strategy Aims

The Draft Plan identifies the following eight Core Strategy Strategic Aims:

- Aim 1 To provide a framework for the proper planning and sustainable development of County Longford over the plan period.
- Aim 2 To demonstrate that the Longford County Development Plan 2021-2027 is consistent, as far as practicable, with national and regional policy objectives set out in the National Planning Framework and Eastern and Midland Regional Spatial and Economic Strategy and other national guidelines and policies.
- Aim 3 To identify the appropriate quantum, location and phasing of development considered necessary to provide for future population growth over the plan period in accordance with National Planning Framework and Eastern and Midland Regional Spatial and Economic Strategy.

- Aim 4 To provide alignment and integration between strategic planning and settlement policy and the prioritisation of physical infrastructure investment.
- Aim 5 To secure future growth opportunities within County Longford through optimising the County's economic, social and physical development.
- Aim 6 To coordinate the development of land identified in this Core Strategy in a manner that supports public transport and existing services and to prioritise sequential development of settlements, including the development of infill and brownfield lands.
- Aim 7 To provide a framework for determining the scale, phasing and location of new development having regard to existing services and planned infrastructural investment over the coming years.
- Aim 8 To provide a framework within which the provision of sustainable infrastructure, amenities, economic investment and development can take place to maximise the use of resources in the plan area.

2.5 Proposed Material Alterations

The Proposed Material Alterations are outlined in detail in the accompanying Proposed Material Alteration document. The "Alteration References" provided in this report and in the main SEA Environmental Report can be used to locate this detail in the accompanying Proposed Material Alteration document.

Alterations proposed include those relating to maps, including land use zoning, and text.

The Proposed Material Alterations were screened for the need to undertake SEA and the alterations below were determined as requiring full SEA. The SEA Screening Determination accompanies this SEA Environmental Report and the Proposed Material Alterations document. Appendix IV to this SEA Environmental Report comprises the SEA Screening Report that was prepared to inform the Determination. Proposed Material Alterations requiring SEA and consideration in this SEA Environmental Report are as follows:

Proposed Material Alteration Ref. [1]	
CH 10.2	CH 12.13
CH 10.3	CH 12.14
CH 10.21	CH 12.16
CH 12.1	CH 13.2
CH 12.2	CH 13.4
CH 12.3	Appendix 1 PMAs
CH 12.4	
CH 12.5	Appendix 6 PMAs: AP.6.2, AP.6.4, AP.6.5
CH 12.7	
CH 12.9	
CH 12.11	

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

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

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

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

- Strategic Environmental Assessment;
- Appropriate Assessment[2];
- Strategic Flood Risk Assessment[3];

[1] For detail please refer to Proposed Material Alterations document.

[2] Appropriate Assessment (AA) Screening and Stage 2 AA are being undertaken alongside the Plan and Proposed Material Alterations. The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC). The emerging conclusion of the AA is that the Plan will not affect the integrity of the European Sites, alone or in combination with other plans or projects (subject to exceptions). The Proposed Material Alterations are accompanied by an AA Natura Impact Report, which has informed this SEA Environmental Report.

- Core Strategy;
- Settlement Strategy;
- Housing Strategy;
- Retail Strategy;
- Sustainable mobility provisions;
- Infrastructure and Green Infrastructure provisions;
- Provisions for Sustainable Mobility.
- Record of Protected Structures and Architectural Conservation Areas;
- Landscape Designations;
- Economic Development; and
- Climate Action.

The undertaking of this SEA process and associated Appropriate Assessment and Strategic Flood Risk Assessment processes were part of this strategic work and contributed towards the integration of environmental considerations into individual Plan provisions as detailed in Section 6 of this report.

2.7 Relationship with other relevant Plans and Programmes

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

The Draft Plan, to which the Proposed Material Alterations relate, sits within a hierarchy of statutory documents setting out public policy for, among other things, land use planning, infrastructure, sustainable development, tourism, environmental protection and environmental management. The Plan must comply with relevant higher-level strategic actions and will, in turn, guide lower level strategic actions. These documents include plans and programmes such as those detailed in Appendix I to the SEA ER. These documents have been subject to their own environmental assessment processes, as relevant.

The National Planning Framework (NPF) sets out Ireland's planning policy direction for the next 22 years. The NPF is to be implemented through Regional Spatial and Economic Strategies (RSESs) and lower tier Development Plans and Local Area Plans. The RSES for the Eastern and Midlands Region sets out objectives for land use planning, tourism, infrastructure, sustainable development, environmental protection and environmental management that have been subject to environmental assessment and must be implemented through the County Development Plan.

As required by the Planning and Development Act 2000, as amended, the Draft County Development Plan is consistent with and conforms with national and regional policies, plans and programmes, including the NPF and the RSES for the Eastern and Midlands Region. The County Development Plan may, in turn, guide lower level strategic actions, such as the Local Area Plans that will be subject to their own lower-tier environmental assessments.

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

[3] SFRA is being undertaken to inform the preparation of the Draft Plan and the Proposed Material Alterations. The SFRA process has informed this report. The SFRA has considered the Proposed Material Alterations and finds that all Proposed Material Alterations, apart from one, comply with "The Planning System and Flood Risk Management Guidelines for Planning Authorities" (DEHLG/OPW, 2009). Proposed Material Alteration Reference AP.1E.18 does not comply with the Guidelines as it proposes incompatible New Residential Zoning in an area of elevated flood risk that would fail the Justification Test under the Guidelines.

Section 3 The Environmental Baseline

3.1 Introduction

The summary of the environmental baseline of the County is described in this section. This baseline together with the Strategic Environmental Objectives, which are identified in Section 3.11, is used in order to identify, describe and evaluate the likely significant environmental effects of implementing the Draft Plan and in order to determine appropriate monitoring measures.

3.2 Likely Evolution of the Environment in the Absence of the Draft Plan and associated Proposed Material Alterations

In the absence of a new Plan it is uncertain how permission for new development would be applied for and considered.

The 2015-2021 Plan has contributed towards environmental protection within County Longford. If the 2015-2021 Plan was to expire and not be replaced by the 2021-2027 Plan, this would result in a deterioration of the County's planning and environmental protection framework. Although higher level environmental protection objectives – such as those of various EU Directives and transposing Irish Regulations – would still apply, the deterioration of this framework would mean that new development would be less coordinated and controlled. Such development could result in an increase in the occurrence of adverse effects on all environmental components, especially those arising cumulatively. Cumulative effects occur as a result of the addition of many small impacts to create one larger, more significant, impact.

Such adverse effects could include:

- Arising from both construction and operation of development and associated infrastructure:
    - Loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna;
    - Habitat loss, fragmentation and deterioration, including patch size and edge effects; and
    - Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species such as birds and bats.
- Potential adverse effects arising from flood events.
- Potential interactions if effects arising from environmental vectors.
- Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of development on contaminated lands.
- Potential for riverbank erosion.
- Potential adverse effects upon the status of water bodies and entries to the WFD Register of Protected Areas (ecological and human value), arising from changes in quality, flow and/or morphology.
- Increase in flood risk and associated effects associated with flood events.
- Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts).
- Failure to adequately treat surface water run-off that is discharged to water bodies (water services infrastructure and capacity ensures the mitigation of potential conflicts).
- Failure to comply with drinking water regulations and serve new development with adequate drinking water (water services infrastructure and capacity ensures the mitigation of potential conflicts).
- Increases in waste levels.
- Potential impacts upon public assets and infrastructure.
- Interactions between agricultural waste and soil, water, biodiversity and human health – including as a result of emissions of ammonia from agricultural activities (e.g. manure handling, storage and spreading) and the production of secondary inorganic particulate matter.
- Potential conflict between development under the Plan and aiming to reduce carbon emissions in line with local, national and European environmental objectives.
- Potential conflicts between transport emissions, including those from cars, and air quality.
- Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors.
- Potential conflicts with climate adaptation measures including those relating to flood risk management.
- Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.
- Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.

3.3 Biodiversity and Flora and Fauna

Ecological sensitivities located within the County include aquatic and terrestrial ecology, associated with the County's extensive network of wetlands comprising:

- Rivers, streams, canals and riparian zones (such as River Shannon, River Erne, River Inny, River Camlin and Royal Canal);
- Wet woodlands, marshes, lakes and ponds;
- Loughs (such as Lough Ree, Lough Forbes, Lough Gowna and Lough Glen); and
- Bogs and turloughs (such as Fortwilliam Turlough, Ardagullion Bog and Clooneen Bog).

These habitats support a variety of species and ecosystems that contribute to the biodiversity of County Longford.

Designated sites within the County include Special Areas of Conservation[4] (SACs) and Special Protection Areas[5] (SPAs). These are mapped on Figure 3.1. There are eight SACs and four SPAs designated within and adjacent to the County, including: Ardagullion Bog SAC; Brown Bog SAC; Clooneen Bog SAC; Derragh Bog SAC; Fortwilliam Turlough SAC; Lough Forbes Complex SAC; Lough Ree SAC; Mount Jessop Bog SAC; Ballykenny-Fisherstown Bog SPA; Glen Lough SPA; Lough Kinale and Derragh Lough SPA; and Lough Ree SPA.

Other ecological designations occur within and adjacent to the County and these are detailed in the main SEA Environmental Report.

CORINE[6] land cover mapping for the County is shown on Figure 3.2. The most dominant land cover types are pastures and bogs. Categories from CORINE mapping that may indicate areas likely to contain Annex I habitats, in the County, include: peat bogs; natural grassland; water bodies; mixed forests; coniferous forest; broad-leaved forest; inland marshes; stream courses; water bodies; transitional woodland and scrub; and land principally occupied by agriculture with areas of natural vegetation.

Existing Problems

Ireland's Article 17 report on the Status of EU Protected Habitats and Species in Ireland (DCHG, 2019) identifies various Irish, EU-protected habitats and species to be of unfavourable status and many to be still declining, although it also identifies that a range of positive actions are underway. Categories for pressures and threats on Ireland's habitats and species identified by the report comprise:

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

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

Previous changes in land uses arising from human development have resulted in a loss of biodiversity and flora and fauna however, legislative objectives governing biodiversity and fauna were not identified as being conflicted with.

[4] 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.

[5] 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.

[6] The CORINE (Coordinated Information on the Environment) land cover data series was devised as a means of compiling geo-spatial environmental information in a standardised and comparable manner. CORINE has become a key data source for informing environmental and planning policy on a national and European level. The main land cover type in Ireland is agricultural land including forestry, which accounts for two-thirds of the national landmass. Most of this is permanent grassland pastures. 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.

3.4 Population and Human Health

In the 2016 Census the total population of County Longford was identified as being 40,873 persons, showing the trends of an increase in total population in the County by c. 4.8% (1,873 persons) since the previous Census.

In the 2016 Census the population distribution across urban and rural areas in the County was identified as being 13,957 persons (34.2%) in urban settlements and 26,916 persons (65.85%) in smaller towns, villages and in the rural remainder of the County.

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

- Recreational and development pressure on habitats and landscapes;
- Increase in demand for waste water treatment at the municipal level;
- 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.

Human health has the potential to be impacted upon by environmental vectors (i.e. environmental components such as air, water or soil through which contaminants or pollutants, which have the potential to cause harm, can be transported so that they come into contact with human beings). Hazards or nuisances to human health can arise as a result of exposure to these vectors arising from incompatible adjacent land uses for example. These factors have been considered with regard to the description of: the baseline of each environmental component; and the identification and evaluation of the likely significant environmental effects of implementing the Plan.

Existing Problems
There is historic and predictive evidence of flooding in various locations across the County.

The greatest health risk from radiation in Ireland is caused by radon. The presence of radon gas, a naturally occurring radioactive gas that originates from the decay of uranium in rocks and soils, occurs across the country. The number of homes within the County with radon levels above the reference level is within the normal range experienced in other locations across the country.

3.5 Soil

Luvisols[7] and peat-based soils are the two most dominant soil types across the Plan area. Other soil types identified include:

- Alluvial soils[8] (in the flood plains of rivers and streams);
- Brown podzol[9] (mainly in the north-east of the Plan area);
- Surface Water Gleys[10] (in depressions in the upper reaches of river valleys in both uplands and lowlands);
- Brown earths[11] (in the south-west and north-west of the Plan area); and
- Rendzina[12] (in the south-east of the Plan area).

Peatlands are a very characteristic habitat in County Longford, with groundwater and rain fed peat soils being a prominent and typical feature in the landscape. There are many areas of peat across the Plan area, with concentrations of these in the west and north-west and east. The County has significant areas of important boglands of regional and national importance, such as Corlea Bog and Trackway, which includes an Iron Age bog road dated back to 148 B.C.

An audit of County Geological Sites in County Longford was completed in 2015. There are 15 County Geological Sites in County Longford, with a concentration of these in the north-east and south-east parts of the Plan area[13]. Many of these County Geological Sites include quarries.

[7] Luvisol soils are generally fertile, widely used for agriculture and associated with significant accumulation of clay.
[8] These are associated with alluvial (clay, silt or sand) river deposits.
[9] Brown podzol soils are characterised by dark brown humus-mineral soil covered with a thin mat of partly decayed leaves
[10] Surface Water Gleys are wetland soils with slowly permeable horizons resulting in seasonal waterlogging.
[11] Brown earths are well drained mineral soils, associated with high levels of natural fertility.
[12] Rendzina soils are shallow calcareous soils with hard rock or skeletal material comprising coarse fragments.
[13] Individual audited site reports for County Longford are available from the GSI (www.gsi.ie).

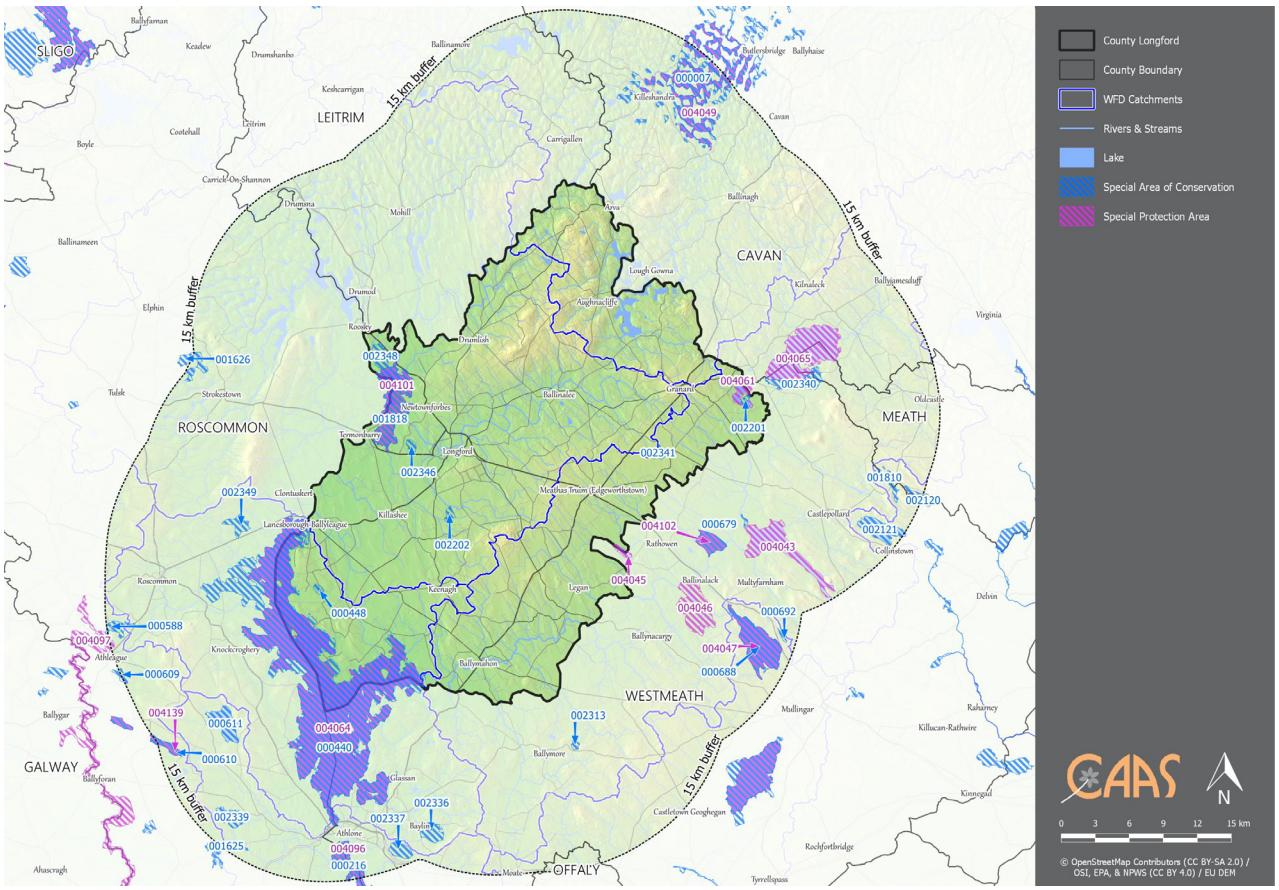

Figure 3.1 European Sites within and adjacent to the County

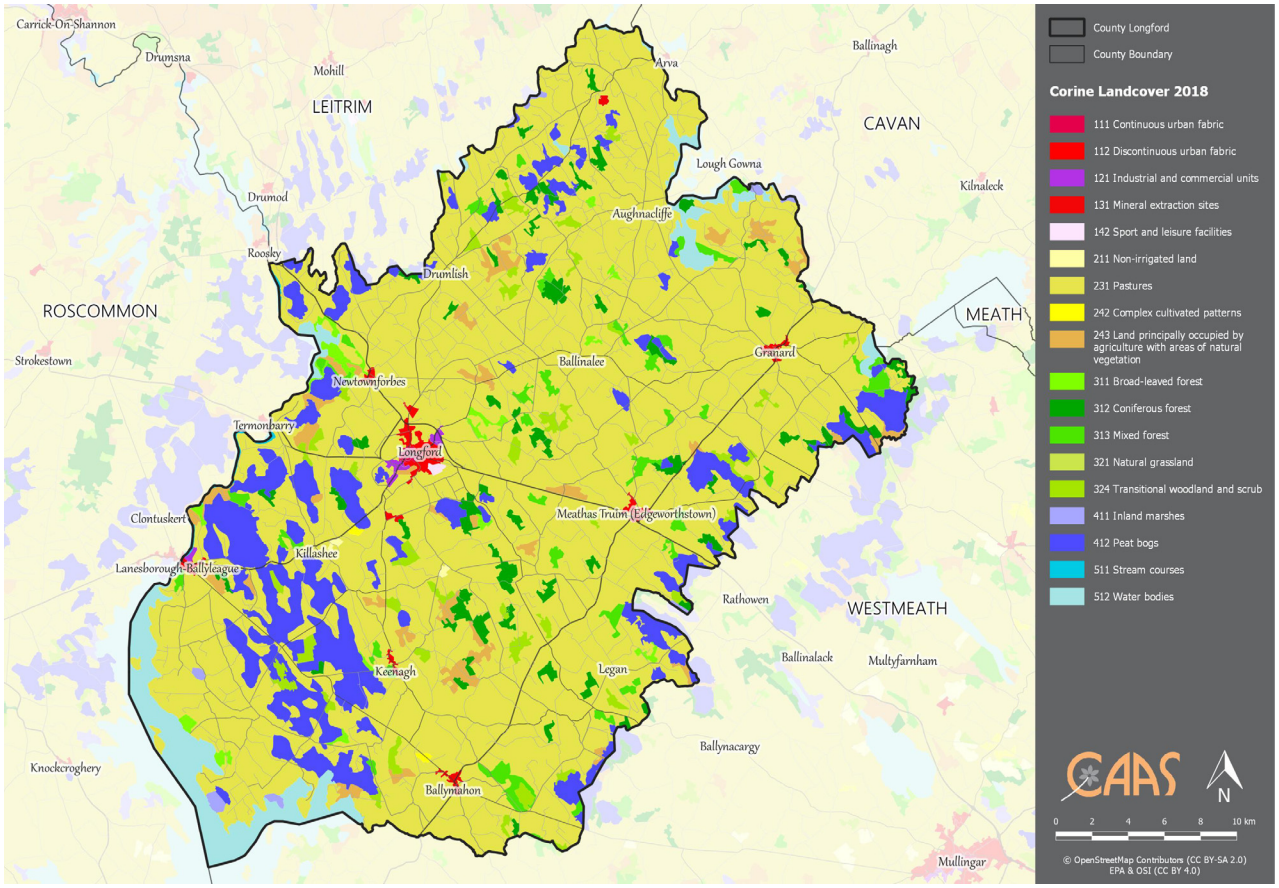

Figure 3.2 CORINE Land Cover Mapping 2018

3.6 Water

Surface and Ground Water Status

Rivers, coastal and transitional waterbodies in the County range in status from *good* to *moderate* and *poor*. *Moderate* and *poor* status water bodies have the potential to fail the requirement of *good* status set out by the Water Framework Directive (WFD). In addition, there are a number of unassigned rivers across the County. The WFD surface water status (2013-2018) of rivers and lakes within and surrounding the County is shown on Figure 3.3.

The WFD status (2013-2018) of most of groundwater underlying the County is identified as being of *good status*, meeting the objectives of the WFD.

Aquifer Vulnerability and Productivity

Aquifer vulnerability refers to the ease with which pollutants of various kinds can enter into groundwater. The aquifers underlying most the County are generally classified as being of:

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

Flooding

Certain areas across the County are at risk from groundwater, pluvial[14] and fluvial[15] flooding. There are various historic and predictive indicators of flood risk in the County, including Areas at greatest risk of fluvial flooding include areas within Longford Town (Camlin River) and along the County's western and south-western County border (River Shannon and Lough Ree).

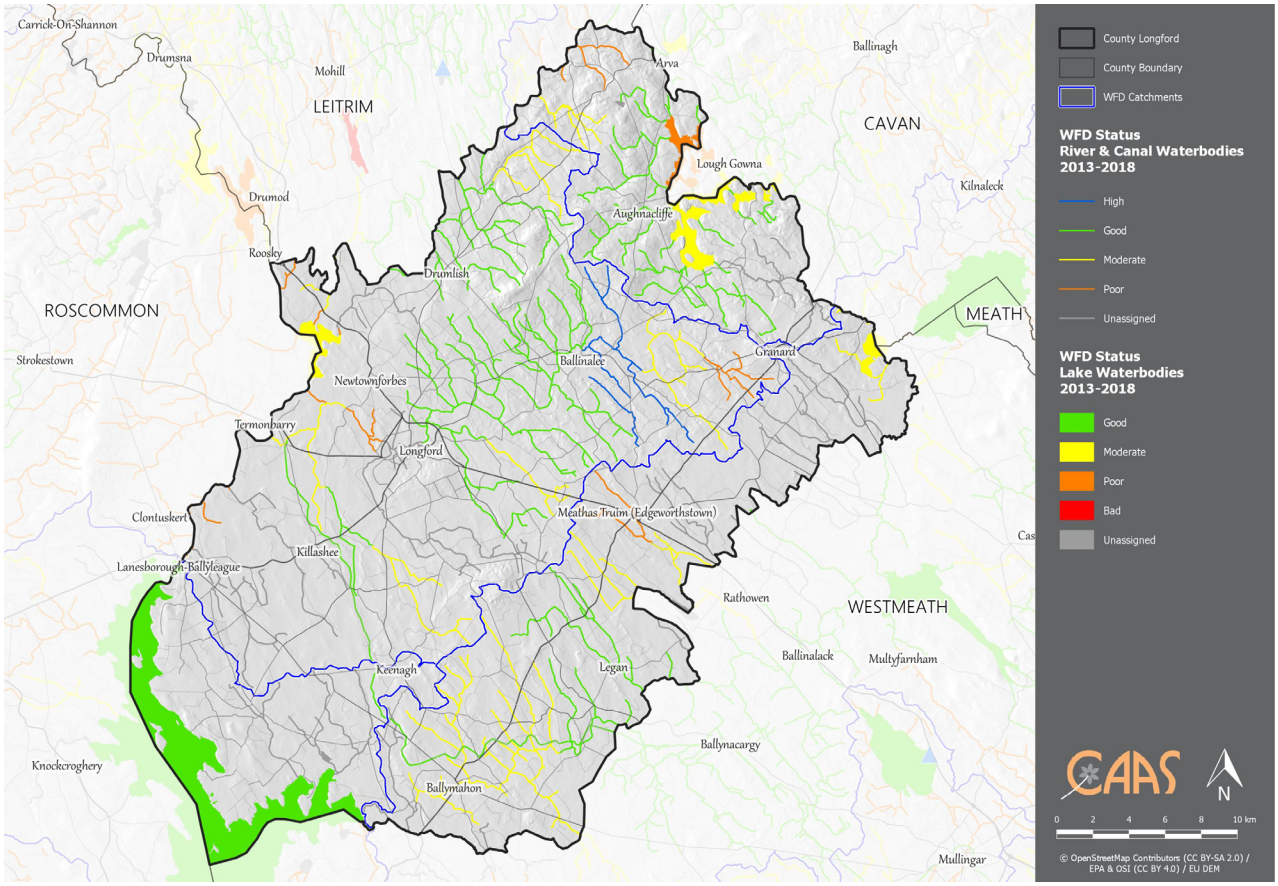

Figure 3.3 Surface Water Status (2013-2018)

[14] Resulting from high intensity rainfall events where run-off volume exceeds capacity of surface water network.
[15] Watercourse capacity is exceeded or the channel is blocked and excess water spills from the channel onto adjacent floodplains.

3.7 Air and Climatic Factors

Total emissions of greenhouse gases by humans come from various sectors including transport, agriculture, energy industries, manufacturing combustion, industrial processes, residential developments, commercial services developments, waste management processes and fluorinated gases equipment (such as refrigeration and fire protection systems). Ireland's National Policy position is to reduce CO_2 emissions in 2050 by 80% on 1990 levels across the Energy Generation, Built Environment and Transport sectors, with a goal of Climate neutrality in the Agriculture and Land-Use sector. For 2017, total national greenhouse gas emissions are estimated to be 0.9% lower than emissions in 2016.

The National Mitigation Plan (Department of Communications, Climate Action and Environment, 2017), represents an initial step to set Ireland on a pathway to achieve the level of decarbonisation required. It is a whole-of-Government Plan, reflecting in particular the central roles of the key Ministers responsible for the sectors covered by the Plan – Electricity Generation, the Built Environment, Transport and Agriculture, as well as drawing on the perspectives and responsibilities of a range of other Government Departments. The National Adaptation Framework Department of Communications, Climate Action and Environment, 2018), sets out the national strategy to reduce the vulnerability of the country to the negative effects of climate change and to avail of positive impacts. The National Adaptation Framework outlines a whole of government and society approach to climate adaptation. Under the Framework, a number of Government Departments will be required to prepare sectoral adaptation plans in relation to a priority area that they are responsible for.

The National Climate Action Plan 2019 is an all of Government plan to tackle climate change and bring about a step change in Irelands climate ambition over the coming years. The plan sets out an ambitious course of action over the coming years to address the diverse and wide-ranging impacts climate disruption is having on Ireland's environment, society, economic and natural resources. The Climate Action Plan sets out clear 2030 targets for each sector with the ultimate objective of achieving a transition to a competitive, low-carbon, climate-resilient, and environmentally sustainable society and economy by 2050.

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

The EPA's (2019) *Air Quality in Ireland 2018* identifies that:

- Levels at monitoring sites in Ireland were below the EU legislative limit values in 2018;
- Ireland was above World Health Organization (WHO) air quality guideline value levels at a number of monitoring sites for fine particulate matter, ozone and nitrogen dioxide;
- Ireland was above the European Environment Agency reference level for PAH, a toxic chemical, at three monitoring sites.

In order to apply with European Directives relating to air quality, the EPA manages the National Ambient Air Quality Network and measures the levels of a number of atmospheric pollutants at locations across the country. The current[16] air quality within the Plan area (Rural East and Small Towns Air Quality Index Regions) is identified by the EPA as being *good*.

3.8 Material Assets

Other material assets, in addition to those referred to below, covered by the SEA include archaeological and architectural heritage (see Section 3.9) natural resources of economic value, such as water and air (see Sections 3.6 and 3.7).

Public Assets and Infrastructure
Public assets and infrastructure that have the potential to be impacted upon by the Plan, if unmitigated, include; settlements; resources such as public open spaces, parks and recreational areas; public buildings and services; transport and utility infrastructure (electricity, gas, telecommunications, water supply,

[16] 18/08/2020 (http://www.epa.ie/air/quality/)

wastewater infrastructure etc.); forestry; and natural resources that are covered under other topics such as water and soil

Waste Water
There are currently 20 wastewater treatment plants in Longford, the majority in the ownership and maintenance of Irish Water. However, Longford County Council operates and maintains five wastewater treatment plants on behalf of the Irish Water, with the foul sewer network collecting effluent from approximately 11,400 homes. Monitoring of the treated effluent from the plants is carried out as required in accordance with the Urban Wastewater Treatment Directive and conditions of the Discharge Licences and Certificates of Authorisation issued by the Environmental Protection Agency.

In unserviced areas and outside the main settlements, the main method of sewage disposal is by individual septic tanks and proprietary wastewater treatment systems. The control of development in areas of high groundwater vulnerability is a priority for the Council.

Irish Water has provided a Wastewater Treatment Capacity Register to assist the Council in the preparation of the new County Development Plan by indicating where there may be wastewater treatment capacity available to accommodate growth ("headroom") in terms of population equivalent[17] (PE) in each settlement serviced by a public wastewater treatment plant. Spare treatment capacity is available now or is expected to be delivered by 2024 in most of these settlements, except for Abbeylara and Culfad-Woodlands Park. The highest levels of headroom (PE) is available at Longford (3,804 PE); Granard (1,411 PE); and Newtownforbes (811 PE). Spare capacity will be also available in Edgeworthstown and Ballymahon upon completion of projects post 2024.

Water Supply
Irish Water is responsible for providing and maintaining adequate public water supply infrastructure throughout the County. Public drinking water in County Longford is supplied through six public water supply schemes (Longford Central; Granard; Gowna; Ballymahon; Lanesborough and Newtowncashel). These are predominately surface water abstraction supplies with the exception of Lanesborough and Newtowncashel which are groundwater sourced supplies.

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 Drinking Water Regulations. Three of the aforementioned supplies (Gowna, Granard and Longford Central Water Supply) are listed on the most recent EPA RAL (Q2 of 2020) and plans of action are in place in order to remedy the relevant issues.

Waste Management
Waste management across the County is guided by the Eastern and Midlands Region Waste Management Plan 2015-2021.

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

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

Existing Problems
There are a number of challenges with respect to the provision of water services infrastructure, some of which are summarised above.

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

[17] As identified in Irish Water's Water Services Strategic Plan, wastewater treatment plants are described in terms of their designed treatment capacity, which is generally expressed as population equivalent (PE). This is a measurement of total organic biodegradable load, including industrial, institutional, commercial and domestic organic load, on a wastewater treatment plant, converted to the equivalent number of PEs. One person is considered to generate 60g of five-day Biochemical Oxygen Demand (BOD) per day. 1 PE is defined as being equivalent to 60g of BOD per day.

3.9 Cultural Heritage

Archaeological Heritage
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.

County Longford has a significant archaeological heritage with many archaeological sites as documented by the National Monuments Service. These sites include industrial heritage (such as mills, bridges the canal and railways) and remains of ecclesiastical heritage (such as churches and abbey ruins, graveyards, pilgrim paths and holy wells). Clusters of monuments in County Longford are located within the County's settlements.

Within the County there are two specific archaeological sites of specific importance: Corlea Bog Trackway, an Iron Age bog road, which was built in the year 148 BC across the surrounding bogland. The oak road is one of the largest of its kind to have been uncovered in Europe. Another one, located in Granard Granard is a Norman Motte, Ireland's highest Norman motte dated 1199.

Other notable monuments in the County include: the portal tomb at Aughnacliffe; an Iron Age timber roadway (toghers) at the Corlea Trackway Visitor Centre; and the linear earthworks that make up the Black Pigs Dyke in north Longford. Several key events in Irish history also took place in the County, including the Battle of Ballinamuck, the last great battle of the 1798 Rebellion.

Lough Ree and associated islands host a variety of cultural heritage features, one of the most notable being Inchcleraun Early Medieval Ecclesiastical Site, believed to be the site where Queen Maeve died and it is now a Monument in State Care.

Architectural Heritage
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. Similar to the general spatial spread of archaeological heritage, clusters of architectural heritage are indicated within the County's settlements. There are currently 536 entries to the Record of Protected Structures within the County[18], including houses, farmyards, walled gardens, demesne, castles, gates railings and cornmills. Notable buildings in the County include: Longford Courthouse; Castle Forbes, Featherstone Memorial; and Edgeworthstown Railway Station. Lanesborough is a fine example of vernacular architecture and is of considerable architectural merit. Further to these St. Mel's Cathedral, an architectural award-winning structure, is located within the Longford Town.

In addition to Protected Structures, the Planning and Development Act, 2000 provides the legislative basis for the protection of Architectural Conservation Areas (ACAs). The ACA designation requires that planning permission must be obtained before significant works can be carried out to the exterior of a structure in the ACA that might alter the character of the structure or the ACA. There are two ACAs designated within County Longford, one in the settlement of Ardagh and one in Longford Town (Battery Road),

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

3.10 Landscape

Longford has a diverse landscape, including low-lying lands situated in the basin of the River Shannon and the upper catchment area of the River Erne, lakelands, boglands, pasturelands and wetlands in various locations across the County.

[18] Draft Longford County Development Plan 2021-2027

There are seven Landscape Character Units (see Figure 3.4) in the County, each with differing landscape levels of sensitivity:

- **Unit 1: Northern Drumlin Lakeland** (landscape sensitivity from low to medium with some high sensitivity in the vicinity of the lakes and designated scenic routes);
- **Unit 2: Northern Upland** (landscape sensitivity from medium to high);
- **Unit 3: Shannon Basin/Lough Ree** (landscape sensitivity from medium along the south-eastern border of the unit to high along the shores of the lake, islands, the riverbanks, and in the vicinity of the Aquifer);
- **Unit 4: Central Corridor** (landscape sensitivity generally low, with potential areas of medium to high in the vicinity of protected woodlands, riverbanks and in the vicinity of the aquifer);
- **Unit 5: Inny Basin** (landscape sensitivity generally low, with potential areas of medium to high in the vicinity of protected woodlands and riverbanks);
- **Unit 6: Peatlands** (visual landscape sensitivity generally low, with high in the vicinity of the Royal Canal; environmental sensitivity from medium to high); and
- **Unit 7: Open Agricultural** (visual landscape sensitivity generally from low to medium, with high sensitivity in the vicinity of the Royal Canal, the River Inny, in upland areas with designated scenic views and in proximity to the heritage village of Ardagh).

'Broad Zone' areas are designated in the County. These are areas of high amenity value and recreational potential associated with the major rivers and lakes, the Royal Canal and areas of outstanding landscape quality in the northern fringes of the County.

The landscape of County Longford has many vantage points which offer attractive views from hilltops and upland areas, along river valleys and the boglands. There are two distinct types of Views, Prospects and associated Scenic Routes identified in the County: 'Full' (uninterrupted) and 'Intermittent' (broken or sporadic). Views are divided into full and intermittent in order to differentiate areas where scenic views may be partial or absent along a particular route. There are currently 22 Full Protected Views, Prospects and associated Scenic Routes and 18 Intermittent Scenic Views, Prospects and associated Scenic Routes identified in County Longford

Existing Environmental Problems

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

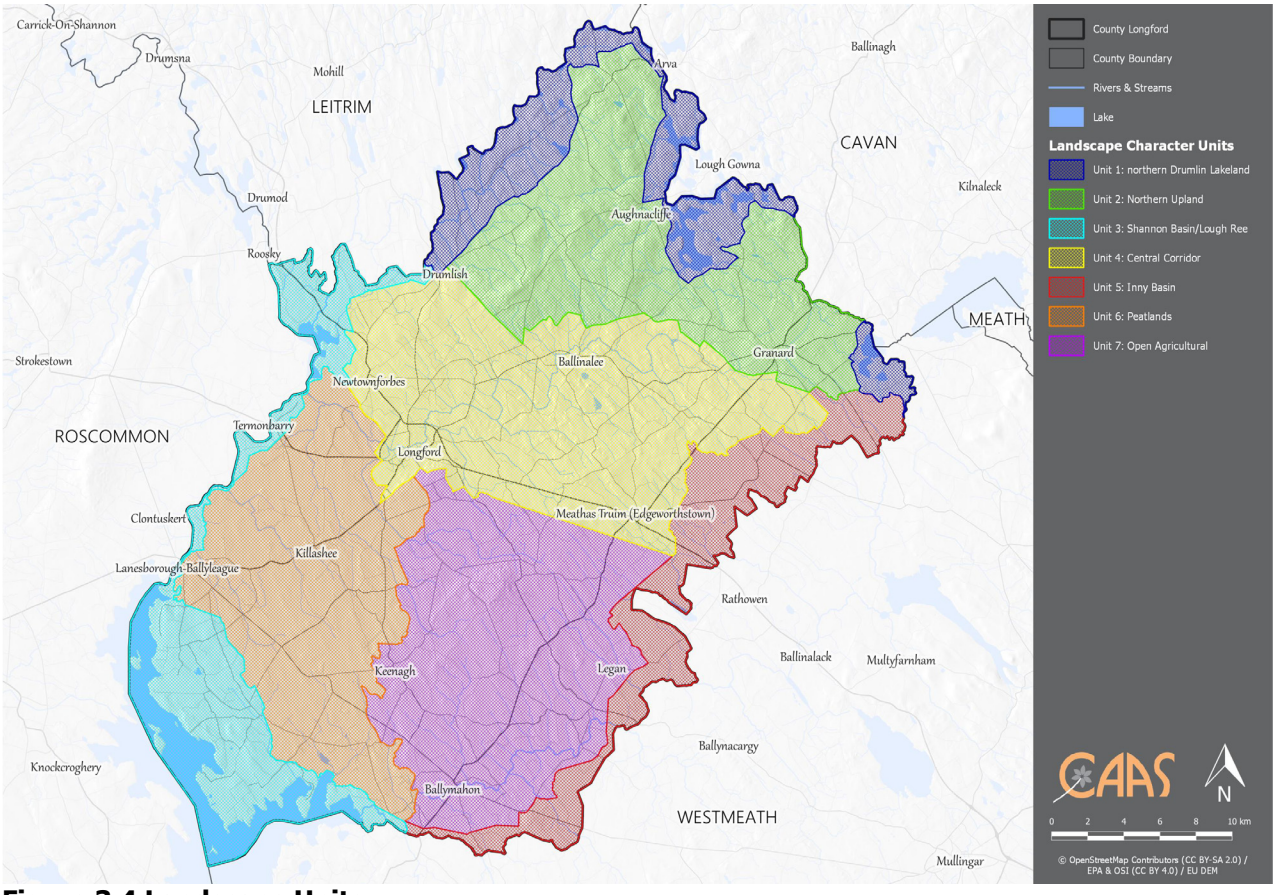

Figure 3.4 Landscape Units

3.11 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 that 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 Draft Plan, the alternatives and the Proposed Material Alterations 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.

Table 3.1 Strategic Environmental Objectives

Environmental Component	SEO Code	Guiding Principle	Strategic Environmental Objectives
Biodiversity, Flora and Fauna	**BFF**	No net contribution to biodiversity losses or deterioration	• To preserve, protect, maintain and, where appropriate, enhance the terrestrial, aquatic and soil biodiversity, particularly EU designated sites and protected species • Ensure no adverse effects on the integrity of any European site, with regard to its qualifying interests, associated conservation status, structure and function • Safeguard national, regional and local designated sites and supporting features which function as stepping stones for migration, dispersal and genetic exchange of wild species • Enhance biodiversity in line with the National Biodiversity Strategy and its targets • To protect, maintain and conserve the County's natural capital
Population and Human Health	**PHH**	Improve quality of life for all ages and abilities based on high-quality, serviced, well connected and sustainable residential, working, educational and recreational environments	• Promote economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management • Ensure that existing population and planned growth is matched with the required public infrastructure and the required services • Safeguard the County's citizens from environment-related pressures and risks to health and well-being
Soil (and Land)	**S**	Ensure the long-term sustainable management of land	• Protect soils against pollution, and prevent degradation of the soil resource • Promote the sustainable use of infill and brownfield sites over the use of greenfield within the County • Safeguard areas of prime agricultural land and designated geological sites
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 regional and County growth targets in the context of existing and projected water supply and waste water capacity constraints ensuring the protection of receiving environments • Avoid inappropriate development in areas at risk of flooding and areas that are vulnerable to current and future erosion • Integrate sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals
Material Assets	**MA**	Sustainable and efficient use of natural resources	• Optimise existing infrastructure and provide new infrastructure to match population distribution proposals in the County • Ensure access to affordable, reliable, sustainable and modern energy for all which encourages a broad energy generation mix to ensure security of supply – wind, wave solar, tidal, biomass, energy from waste and traditional fossil fuels • Promote the circular economy, reduce waste, and increase energy efficiencies • Ensure there is adequate sewerage and drainage infrastructure in place to support new development • Reduce the energy demand from the transport sector and support moves to electrification of road and rail transport modes • Encourage the transition to a zero-carbon economy by facilitating the development of a grid infrastructure to support renewables and international connectivity. Reduce the average energy consumption per capita including promoting energy efficient buildings, retrofitting, smart- buildings, cities and grids
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 by 2020 and move closer to WHO recommended levels.

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

Section 4 Alternatives

4.1 Introduction

The SEA Directive requires that reasonable alternatives (taking into account the objectives and the geographical scope of the plan or programme) are identified, described and evaluated for their likely significant effects on the environment. Whether or not alternatives for the County Development Plan are available has been identified by Longford County Council.

The description and assessment of alternatives identified in the early stages of Draft Plan preparation and included in the October 2020 SEA Environmental Report is reproduced below. Where Proposed Material Alterations warrant comment with respect to the assessment, comment is provided in blue text like this.

4.2 Limitations in Available Alternatives

The Plan is required to be prepared by the Planning and Development Act 2000 (as amended), which specifies various types of objectives that must be provided for by the Plan.

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

4.3 Alternatives for Positioning under the Settlement Hierarchy

The Settlement Hierarchy Levels for the Plan are identified on Table 4.1.

Table 4.1 Settlement Hierarchy Levels in Longford

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

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

Description of Alternatives for Positioning under the Settlement Hierarchy

(A) Designate Granard as a Self-Sustaining Growth Town and Ballymahon and Edgeworthstown as Self-Sustaining Towns
(B) Designate Ballymahon and Edgeworthstown as Self-Sustaining Growth Towns and Granard as a Self-Sustaining Town.

Summary of Assessment for Positioning under the Settlement Hierarchy

Alternative (A): Ballymahon and Edgeworthstown require significant 'catch-up' investment to become more self-sustaining and the likelihood of this happening under Alternative A, which places the towns in a lower tier, would be

reduced. Ballymahon and Edgeworthstown have been successful at attracting new development and have experienced significant growth that needs to be accompanied by new service and infrastructure provision as soon as practicable. Growth in Granard has been low despite it been given prioritised by policy in the past.

Alternative A would have the potential to result in higher levels of private car-based commuting, potentially contributing towards efforts to improve sustainable mobility and reduce greenhouse gas emission reduction targets the least, as Granard is not as well-serviced with public transport links as Ballymahon and Edgeworthstown are.

A greater level of growth in Granard under this alternative could be accommodated by the existing available capacity in the waste water treatment plant (identified as having 1,411 population equivalent in headroom). There is currently limited capacity in Ballymahon and Edgeworthstown (identified as having no headroom) to accommodate new growth. However, Irish Water has committed to upgrading the capacities of these plants over the lifetime of the Plan, projecting a completion year post 2024. As a result, Alternative A would be likely to meet objectives relating to waste water treatment (and associated potential interactions with ecology and water quality) the most in the shorter term, potentially conflicting with these objectives the least.

Alternative (B): Ballymahon and Edgeworthstown require significant 'catch-up' investment to become more self-sustaining and the likelihood of this happening under Alternative A, which places the towns in an upper tier, would be increased. Ballymahon and Edgeworthstown have been successful at attracting new development and have experienced significant growth that needs to be accompanied by new service and infrastructure provision as soon as practicable. Growth in Granard has been low despite it been given prioritised by policy in the past.

Alternative B would have the potential to result in lower levels of private car-based commuting, contributing towards efforts to improve sustainable mobility and reduce greenhouse gas emission reduction targets the most, as Ballymahon and Edgeworthstown are better serviced with public transport links than Granard is.

There is currently limited capacity in Ballymahon and Edgeworthstown (identified as having no headroom) to accommodate new growth. However, Irish Water has committed to upgrading the capacities of these plants over the lifetime of the Plan, projecting a completion year post 2024. Growth in Granard under this alterative could be accommodated by the existing available capacity in the waste water treatment plant (identified as having 1,411 population equivalent in headroom). As a result, Alternative B would be likely to meet objectives relating to waste water treatment (and associated potential interactions with ecology and water quality) the least in the shorter term, potentially conflicting with these objectives the most. Demand for shorter term growth could be facilitated in the settlements of Granard and Lanesborough.

Selected Alternative for Positioning under the Settlement Hierarchy

Alternative B was selected as part of the Draft Plan. Alternative A is proposed under the Proposed Material Alterations.

The assessment provided, together with the mitigation that has been considered in the assessment of the Draft Plan, demonstrates that the significant environmental effects of either alternative can be mitigated to the extent that only residual effects remain.

4.4 Alternatives for Rural Areas

Description of Alternatives for Rural Areas under Strong Urban Influence

(A) Designate Rural Areas under Strong Urban Influence that require various criteria to be demonstrated in advance of planning permission being granted for a single dwelling for permanent occupation.
(B) Do not designate Rural Areas under Strong Urban Influence and assess each planning application on its merits.

Summary of Assessment for Rural Areas under Strong Urban Influence

Alternative (A): Restricting development in rural areas that are under strong urban influence would positively impact upon the protection and management of the environment and sustainable development. The restrictions would help to both reduce levels of greenfield development in areas immediately surrounding existing centres and encourage brownfield development within existing centres.

Rural development would be focus into appropriate rural areas and urban development would be directed towards established settlements. This alternative would help to prevent low density urban sprawl and associated adverse effects upon sustainable mobility, climate emission reduction targets and various environmental components.

Alternative (B): Not restricting development in rural areas that are under strong urban influence would adversely impact upon the protection and management of the environment and sustainable development. The absence of restrictions would result in increased levels of greenfield development in areas immediately surrounding existing centres and less demand for brownfield development within existing centres.

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

Selected Alternative for Rural Areas under Strong Urban Influence

(A) **Designate Rural Areas under Strong Urban Influence that require various criteria to be demonstrated in advance of planning permission being granted for a single dwelling for permanent occupation.**

Description of Alternatives for Serviced Rural Villages and Rural Settlement Clusters

(A) Provide focus to and targeted policies/objectives for Serviced Rural Villages and Rural Settlement Clusters to act as a viable alternative to one-off housing in the open countryside.

(B) Serviced Rural Villages and Rural Settlement Clusters are included but there is no focus or no targeted provisions for these locations to act as a viable alternative to one-off housing in the open countryside.

Summary of Assessment for Serviced Rural Villages and Rural Settlement Clusters

Alternative (A): Providing focus to and targeted policies/objectives for Serviced Rural Villages and Rural Settlement Clusters would help to provide a viable alternative to one-off housing in the open countryside. Development within Serviced Rural Villages and Rural Settlement Clusters would be more likely to be served by infrastructure (including water services infrastructure) and more likely to protect the environment including the status of ground and surface waters, water used for drinking water, human health, biodiversity and flora and fauna and the landscape. Development would be required to be subject to siting, design, protection of residential amenities and normal development management criteria, subject to the satisfactory provision of infrastructure and services and in keeping with the character of the settlement.

Alternative (B): Not providing a focus to and targeted policies/objectives for Serviced Rural Villages and Rural Settlement Clusters would be less likely to provide a viable alternative to one-off housing in the open countryside. Development within the open countryside would be less likely to be served by infrastructure (including water services infrastructure) and less likely to protect the environment including the status of ground and surface waters, water used for drinking water, human health, biodiversity and flora and fauna and the landscape.

Selected Alternative for Serviced Rural Villages and Rural Settlement Clusters

(A) **Provide focus to and targeted policies/objectives for Serviced Rural Villages and Rural Settlement Clusters to act as a viable alternative to one-off housing in the open countryside.**

4.5 Alternatives for Land Use Zoning

Available alternatives for land use zoning at relevant settlements and the associated environmental assessment are summarised on Table 4.2.

Alternative B "More compact" was selected for each settlement as part of the Draft Plan. An even more compact form of zoning is proposed for various settlements under the Proposed Material Alterations. These changes are considered in the SEA Environmental Report and in Section 5 of this Non-Technical Summary. The final SEA documents prepared to accompany the adopted Plan will take account the final zoning adopted as part of the Plan

Table 4.2 Land Use Zoning Alternatives and Summary Assessment

Town	Alternative (selected alternatives in **bold**)	Summary Assessment
Longford Town	A. Less compact (all New Residential)	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	B. More compact (New Residential and Residential Reserve)	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Prioritisation of New Residential lands over Residential Reserve took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Edgeworthstown	A. Less compact (all New Residential and Industrial)	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	B. More compact (New Residential, Residential Reserve, Industrial and Industrial Reserve)	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Prioritisation of New Residential lands over Residential Reserve took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Ballymahon	A. Less compact (all New Residential)	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	B. More compact (New Residential and Residential Reserve)	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Prioritisation of New Residential lands over Residential Reserve took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Granard	A. Less compact (all New Residential and Industrial)	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	B. More compact (New Residential,	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of

Town	Alternative (selected alternatives in **bold**)	Summary Assessment
	Residential Reserve, Industrial and Industrial Reserve)	brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Prioritisation of New Residential lands over Residential Reserve took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Lanesborough	A. Less compact (all New Residential)	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	B. More compact (New Residential and Residential Reserve)	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Prioritisation of New Residential lands over Residential Reserve took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Aughnacliffe	A. Less compact (all New Residential)	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	B. More compact (New Residential and Residential Reserve)	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Prioritisation of New Residential lands over Residential Reserve took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Ballinalee	A. Less compact (all New Residential)	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	B. More compact (New Residential and Residential Reserve)	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Prioritisation of New Residential lands over Residential Reserve took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Drumlish	A. Less compact (all New Residential and Industrial)	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	B. More compact (New Residential, Residential Reserve, Industrial and Industrial Reserve)	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Prioritisation of New Residential lands over Residential Reserve took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Keenagh	A. Less compact (all New Residential)	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	B. More compact (New Residential and Residential Reserve)	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Prioritisation of New Residential lands over Residential Reserve took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.

Town	Alternative (selected alternatives in **bold**)	Summary Assessment
Legan	A. Less compact (all New Residential)	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	B. More compact (New Residential and Residential Reserve)	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Prioritisation of New Residential lands over Residential Reserve took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Newtownforbes	A. Less compact (all New Residential)	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	B. More compact (New Residential and Residential Reserve)	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Prioritisation of New Residential lands over Residential Reserve took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Ardagh	A. Less compact (all New Residential)	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	B. More compact (New Residential and Residential Reserve)	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Prioritisation of New Residential lands over Residential Reserve took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.
Ballinamuck	A. Less compact (all New Residential)	By not consolidating land use zoning and including unnecessary land use zoning, this alternative would provide for a less compact form of development that would fail to maximise benefits from infrastructural investment. By facilitating the unnecessary sprawl of the settlement and failing to consolidate zoning, this alternative would decrease the likelihood of brownfield development and conflict with efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Providing for unnecessary zoning would be likely to result in higher levels of sprawl and associated avoidable potential adverse environmental effects.
	B. More compact (New Residential and Residential Reserve)	By consolidating land use zoning and reducing unnecessary land use zoning this alternative would provide for a more compact form of development that would help to maximise benefits from infrastructural investment. By consolidating the zoning and helping to avoid unnecessary sprawl of the settlement, this alternative would increase the likelihood of brownfield development and contribute towards efforts to improve sustainable mobility (with associated effects on energy, air, noise and human health). Reducing unnecessary zoning would help to minimise sprawl and would avoid potential adverse environmental effects that would otherwise occur - this would benefit the protection of multiple environmental components. Prioritisation of New Residential lands over Residential Reserve took into account: whether water services infrastructure was already provided for or, if not, whether it could be more easily provided for; access to transport infrastructure; and proximity to the existing development envelope and town centre.

Section 5 Summary of Effects arising from Plan

Table 5.1 summarises the overall environmental effects arising from the Proposed Material Alterations.

Table 5.1 Summary of Assessment

Alteration Ref.[19]	Commentary
CH 10.2 CH 10.3 CH 10.21 CH 12.1 CH 12.2 CH 12.3 CH 12.4 CH 12.5 CH 12.7 CH 12.9 CH 12.11 CH 12.13 CH 12.14 CH 12.16 CH 13.2 CH 13.4	It was determined prudent to undertake SEA on these Proposed Material Alterations as Stage 2 AA was required. Taking into account the measures that have been already integrated into the Draft Plan that provide for and contribute towards environmental protection, environmental management and sustainable development, the AA process identified that there is no potential for effects to arise on the integrity of any European site as a result of all Proposed Material Alterations. Furthermore, the AA screening process takes into account the need to undertake Stage 2 AA when mitigation is being proposed. As these Proposed Material Alterations identified could be considered to be mitigation in relation to Plan elements that could potentially affect the integrity of European sites, further to the mitigation already integrated into the Draft Plan, Stage 2 AA was required.
Appendix 1 PMAs	There is an established planning need for these alterations relating to Appendix I Land Use Zoning, which have come about as a result of submissions made on the original Draft Plan that was placed out on public display. The alterations have been identified as being consistent with objectives for proper planning and sustainable development. Overall, there is a significant reduction in the area to be zoned, with land use zoning becoming more compact overall. These alterations would be likely to reduce the residual adverse effects identified under all environmental components as a result of changes in land take provided. Where areas of expanded/amended zoning are proposed, adverse effects would be mitigated by the provisions already integrated into the Draft Plan. Proposed Material Alteration AP.1E.18 would not be in compliance with "The Planning System and Flood Risk Management Guidelines for Planning Authorities" (DEHLG/OPW, 2009) and would provide for new vulnerable development on lands, some of which are at elevated risk from flooding. This Alteration therefore has the potential to significantly adversely impact upon objectives for sustainable flood risk management and protection of human health and material assets.
Appendix 6 PMAs: AP.6.2, AP.6.4, AP.6.5	Proposed Material Alterations AP.6.2, AP.6.4, AP.6.5 propose the removal of architectural heritage from the Record of Protected Structures in the absence of evidence demonstrating that this heritage does not warrant the protection afforded by inclusion on the Record. In the absence of evidence to the contrary, it must be assumed, taking a precautionary approach, that removal of these structures would be likely to result in significant adverse effects on the County's architectural heritage.

[19] See Proposed Material Alteration document for more detail

Section 6 Mitigation and Monitoring Measures

6.1 Mitigation

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. These measures also apply to Proposed Material Alterations.

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 certain recommendations from the assessments into the Plan, the Council have ensured that both the beneficial environmental effects of implementing the Plan have been and will be maximised and that potential adverse effects have been and will be avoided, reduced or offset.

Mitigation was achieved through the:

- Strategic work undertaken by the Council to ensure contribution towards environmental protection and sustainable development[20];
- Considering alternatives for the Draft Plan to which the Proposed Material Alterations relate[21];
- Integration of environmental considerations into zoning provisions of the Draft Plan to which the Proposed Material Alterations relate[22]; and
- Integration of individual SEA, AA and SFRA provisions into the text of the Draft Plan to which the Proposed Material Alterations relate.

6.2 Monitoring

The SEA Directive requires that the significant environmental effects of the implementation of plans and programmes are monitored. Monitoring is based around indicators that allow quantitative measures of trends and progress over time relating to the Strategic Environmental Objectives identified at Table 3.1 and used in the evaluation. Monitoring indicators, targets, sources and remedial action is provided at Table 6.1 overleaf.

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

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

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

- Strategic Environmental Assessment;
- Appropriate Assessment;
- Strategic Flood Risk Assessment;
- Core Strategy;
- Settlement Strategy;
- Housing Strategy;
- Retail Strategy;
- Sustainable mobility provisions;
- Infrastructure and Green Infrastructure provisions;
- Provisions for Sustainable Mobility.
- Record of Protected Structures and Architectural Conservation Areas;
- Landscape Designations;
- Economic Development; and
- Climate Action

[21] Although strategic alternatives in relation to the content of the Plan were significantly limited for the Plan (see Section 4), as part of the Plan preparation/SEA process, the Council considered a number of alternatives for the Plan. These alternatives were assessed by the SEA process and the findings of this assessment informed the selection of preferred alternatives, facilitating an informed choice with respect to the type of Plan that was prepared and placed on public display.

[22] Environmental considerations were integrated into the Plan's zoning through an interdisciplinary approach. Zoning has been applied in a way that primarily seeks to achieve sustainable and compact growth, taking into account the various requirements set out in the higher-level NPF and Eastern and Midland RSES. The detailed Plan preparation process undertaken by the Planning Department combined with specialist input from the SFRA process facilitated zoning that avoids inappropriate development being permitted in areas of high flood risk. Various provisions have been inserted into the Plan that provide for flood risk management at project level. Also taken into account were environmental sensitivities relating to ecology, cultural heritage, landscape and water, as well as the overlay mapping of environmental sensitivities.

Table 6.1 Indicators, Targets, Sources and Remedial Action

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
Biodiversity, Flora and Fauna	**BFF**	• Condition of European sites • Number of spatial plans that have included ecosystem services content, mapping and policy to protect ecosystem services when their relevant plans are either revised or drafted • SEA and AA as relevant for new Council policies, plans, programmes etc. • Status of water quality in the County's water bodies • Compliance of planning permissions with Plan measures providing for the protection of Biodiversity and flora and fauna – see Chapter 12 "Natural Heritage and Environment"	• Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions in their land use plans and as a minimum, to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species • Implement and review, as relevant, Longford Biodiversity Action Plan 2019-2024 • 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 12 "Natural Heritage and Environment"	• Department of Culture, Heritage and the Gaeltacht report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive (every 6 years). • Department of Culture, Heritage and the Gaeltacht National Monitoring Report for the Birds Directive under Article 12 (every 3 years) • Internal monitoring of preparation of local land use plans • Internal monitoring of likely significant environmental effects of grants of permission (grant by grant). • Consultations with the NPWS (at monitoring evaluation)	• Where condition of European sites is found to be deteriorating this will be investigated with the Regional Assembly and the DCHG (and the DHPLG for water) to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance. • Where water bodies are failing to meet at least good status this will be investigated with the DHPLG Water Section, the Regional Assembly, the EPA Catchment Unit and, as relevant, Irish Water to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance.
Population and Human Health	**PHH**	• Implementation of Plan measures relating to the promotion of economic growth as provided for by Chapter 8 "Economic Development" • Number of spatial concentrations of health problems arising from environmental factors resulting from development permitted under the Plan • Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures • Number of spatial plans that include specific green infrastructure mapping	• For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to the promotion of economic growth as provided for by Chapter 8 "Economic Development" • No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan • Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures. • Implementation of Green Infrastructure	• Internal review of progress on implementing Plan objectives • Consultations with the Health Service Executive and EPA • CSO data • Internal monitoring of preparation of local land use plans	• Where planning applications in key growth towns are rejected due to insufficient capacity in the waste water treatment plant or failure of the waste water treatment plant to meet Emission Limit Values, the Council will contribute towards a response with the Regional Assembly, EPA and Irish Water to achieve the necessary capacity. • Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, the DHPLG, DCCAE and NTA to develop a tailored response.
Soil (and Land)	**S**	• Proportion of population growth occurring on infill and brownfield lands compared to greenfield • Volume of contaminated material generated from brownfield and infill • Number of AA determinations and environmental assessments undertaken to support applications for brownfield and infill development prior to planning permission	• Maintain built surface cover nationally to below the EU average of 4%. • Achieve the 40% target for growth on infill as per NPF.	• Environmental Protection Agency (EPA), Geoportal • Internal monitoring of likely significant environmental effects of grants of permission (grant by grant)	• Where the proportion of growth on infill and brownfield sites is not keeping pace with the targets set in the NPF and the RSES, the Council will liaise with the Regional Assembly to establish reasons and coordinate actions to address constraints to doing so.

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
Water	**W**	• Status of water bodies as reported by the EPA Water Monitoring Programme for the WFD • Number of incompatible developments permitted within flood risk areas	• 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 second cycle of the River Basin Management Plan by 2021 (and subsequent iterations as relevant) • Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk	• EPA Monitoring Programme for WFD compliance • Internal monitoring of likely significant environmental effects of grants of permission (grant by grant)	• Where water bodies are failing to meet at least good status this will be investigated with the DHPLG Water Section, the EPA Catchment Unit, the Regional Assembly and, as relevant, Irish Water to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance. • Where planning applications in key growth towns are rejected due to insufficient capacity in the Waste water treatment Plant or failure of the plant to meet Emission Limit Values, the Eastern and Midland Regional Assembly will coordinate a response between the relevant local authority, EPA and Irish Water to achieve the necessary capacity. • The Council will engage, as relevant, with the Eastern and Midland Regional Assembly and the OPW with respect to planning applications for development in areas of elevated flood risk.
Material Assets	**MA**	• Programmed delivery of Irish Water infrastructure for all key growth towns in line with Irish Water Investment Plan and prioritisation programme to ensure sustainable growth can be accommodated • Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Plan • Proportion of population within who report regular cycling / walking to school and work above 2016 CSO figures	• To map brownfield and infill land parcels across the County. • All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan • Where septic tanks are proposed, for planning permission to be only granted when applications demonstrate that the outfall from the septic tank will not – in- combination with other septic tanks– contribute towards any surface or ground water body not meeting the objective of good status under the Water Framework Directive • Increased budget spends on water and waste water infrastructure • By 2020 all citizens will have access to speeds of 30Mbps, and that 50% of citizens will be subscribing to speeds of 100Mbps	• Internal monitoring of likely significant environmental effects of grants of permission (grant by grant) • CSO data • Consultations with Irish Water (at monitoring evaluation) • Department of Housing, Planning and Local Government in conjunction with Local Authorities • Department of Communications, Climate Action and Environment • Department of Public Expenditure and Reform	• Where planning applications in key growth towns are rejected due to insufficient capacity in the waste water treatment plant or failure of the waste water treatment plant to meet Emission Limit Values, the Council will coordinate a response between the Regional Assembly, EPA and Irish Water to achieve the necessary capacity. • Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, DHPLG and NTA to develop a tailored response.
Air	**A**	• Proportion of journeys made by private fossil fuel-based car compared to 2016 National Travel Survey levels of 74% • NO_x, SO_x, PM10 and PM2.5 as part of Ambient Air Quality Monitoring	• Decrease in proportion of journeys made by private fossil fuel-based car compared to 2016 National Travel Survey levels. • Improvement in Air Quality trends, particularly in relation to transport related emissions of NO_x and particulate matter	• CSO data • Data from the National Travel Survey • EPA Air Quality Monitoring • Consultations with Department of Transport Tourism and Sport, Transport Trends and Department of Communication Climate Action and Environment (at monitoring evaluation)	• Where proportion of population shows increase in private car use above CSO 2016 figures, Council will coordinate with the Regional Assembly, DHPLG, DCCAE and NTA to develop a tailored response. See also entry under Population and human health above

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action
Climatic Factors	**C**	• Implementation of Plan measures relating to climate reduction targets as provided for by Plan provisions including those provided for and referenced in Chapter 3 "Climate Change" • Proportion of journeys made by private fossil fuel-based car compared to 2016 levels • Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures	• For review of progress on implementing Plan objectives to demonstrate successful implementation of measures climate reduction targets as provided for by Plan provisions including those provided for and referenced in Chapter 3 "Climate Change" • Increase in the proportion of people resident in the County reporting regular cycling / walking to school and work above 2016 CSO figures • Decrease in the proportion of journeys made by residents of the County using private fossil fuel-based car compared to 2016 levels • Contribute towards transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050 • Contribute towards the target of the Renewable Energy Directive (2009/28/EC), for all Member States to reach a 10% share of renewable energy in transport by 2020 • Contribute towards the target of aggregate reduction in carbon dioxide (CO_2) emissions of at least 80% (compared to 1990 levels) by 2050 across the electricity generation, built environment and transport sectors • To promote reduced energy consumption and support the uptake of renewable options and a move away from solid fuels for residential heating	• EPA Annual National Greenhouse Gas Emissions Inventory reporting • Climate Action Regional Office • Consultations with Department of Communication Climate Action and Environment (at monitoring evaluation) • CSO data	• Where trends toward carbon reduction are not recorded, the Council will liaise with the Regional Assembly to establish reasons and develop solutions • Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, DHPLG and NTA to develop a tailored response
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 • Percentage of entries to the Record of Protected Structures and Architectural Conservation Areas and their context protected from significant adverse effects arising from new development granted permission under the Plan	• Protect entries to the Record of Monuments and Places, and the context of these entries within the surrounding landscape where relevant, from adverse effects resulting from development which is granted permission under the Plan • Protect entries to the Record of Protected Structures and Architectural Conservation Areas and their context from significant adverse effects arising from new development granted permission under the Plan	• Internal monitoring of likely significant environmental effects of grants of permission (grant by grant) • Consultation with Department of Culture, Heritage and the Gaeltacht (at monitoring evaluation).	• Where monitoring reveals visitor pressure is causing negative effects on key tourist features, the Council will work with Regional Assembly, Fáilte Ireland and other stakeholders to address the pressures through additional mitigation
Landscape	**L**	• Number of developments permitted which result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan	• No developments permitted which result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan	• Internal monitoring of likely significant environmental effects of grants of permission (grant by grant)	• Where monitoring reveals developments permitted which result in avoidable adverse visual impacts on the landscape, the Council will re-examine Plan provisions and the effectiveness of their implementation