

# SEA ENVIRONMENTAL REPORT

## APPENDIX IV – NON-TECHNICAL SUMMARY

---

FOR

**RELEVANT PROPOSED MATERIAL ALTERATIONS**

TO THE

**DRAFT ROSCOMMON  
COUNTY DEVELOPMENT PLAN 2021-2027**



**for: Roscommon County Council**

Áras an Chontae  
Roscommon  
County Roscommon



**by: CAAS Ltd.**

1<sup>st</sup> Floor  
24-26 Ormond Quay Upper  
Dublin



**DECEMBER 2021**

## Table of Contents

<b>Section 1</b>	<b>Introduction and Terms of Reference .....</b>	<b>1</b>
<b>Section 2</b>	<b>The Draft Plan and associated Proposed Material Alterations.....</b>	<b>4</b>
2.1	Introduction .....	4
2.2	Content of the Plan .....	4
2.3	Plan Vision .....	4
2.4	Strategic Aims .....	5
2.5	Proposed Material Alterations.....	5
2.6	Strategic work undertaken by the Council to ensure contribution towards environmental protection and sustainable development.....	6
2.7	Relationship with other relevant Plans and Programmes .....	6
<b>Section 3</b>	<b>The Environmental Baseline.....</b>	<b>7</b>
3.1	Introduction .....	7
3.2	Likely Evolution of the Environment in the Absence of the Draft Plan and associated Proposed Material Alterations.....	7
3.3	Biodiversity and Flora and Fauna.....	7
3.4	Population and Human Health.....	8
3.5	Soil.....	9
3.6	Water .....	10
3.7	Air and Climatic Factors .....	11
3.8	Material Assets .....	12
3.9	Cultural Heritage.....	14
3.10	Landscape.....	14
3.11	Strategic Environmental Objectives.....	16
<b>Section 4</b>	<b>Alternatives .....</b>	<b>18</b>
4.1	Introduction .....	18
4.2	Limitations in Available Alternatives .....	18
4.3	Assessment of Tier 1: Positioning under the Settlement Hierarchy.....	18
4.4	Assessment of Tier 2: Alternatives for Population Allocations .....	19
4.5	Assessment of Tier 3: Alternatives for Rural Areas .....	20
4.6	Assessment of Tier 4: Alternatives for Densities.....	21
4.7	Assessment of Tier 5: Alternatives for Land Use Zoning.....	22
<b>Section 5</b>	<b>Summary of Effects arising from Plan.....</b>	<b>23</b>
<b>Section 6</b>	<b>Mitigation and Monitoring Measures .....</b>	<b>24</b>
6.1	Mitigation.....	24
6.2	Monitoring.....	24

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

SEA enables requirements relating to environmental protection and management to be integrated into the Plan so that compatible sustainable development in the County's sensitive areas is also facilitated.

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 Roscommon 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:

- Lough Ree (which is designated as an SPA and SAC and is located within the south-east of the County);
- Bellanagare Bog (which is designated as an SPA and SAC and is located to the north-west of Roscommon town) and other peatlands and wetlands; and

- The Kilronan Mountain area (which is subject to landscape and groundwater vulnerability designations and is located in the north-east of the County).

Varying levels of sensitivities are found elsewhere in the county as a result of, inter alia, classifications that cover wide areas, such as:

- Landscape character areas of exceptional, very high and high value (these cover around half of the County);
- Extreme and high vulnerability aquifers (these underlie most of the County);
- Various rivers and streams; and
- Groundwater bodies used for drinking water (these also underlie most of the County).

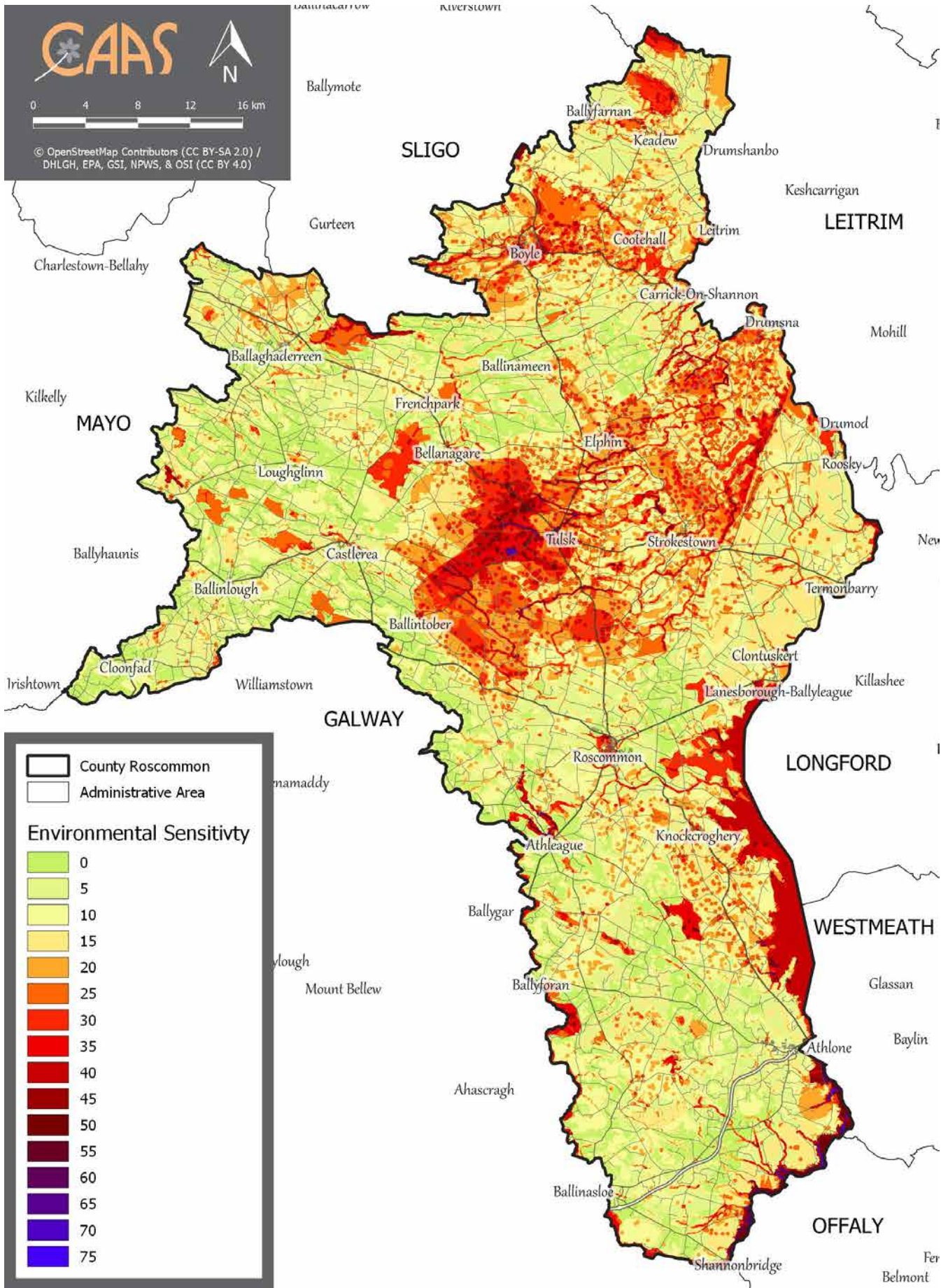
### **Difficulties Encountered during the SEA process**

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 which will summarise, inter alia, how environmental considerations have been integrated into the Plan.



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

## Section 2 The Draft Plan and associated Proposed Material Alterations

### 2.1 Introduction

The Roscommon County Development Plan is a land use plan and overall strategy for the proper planning and sustainable development of the functional area of County Roscommon 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 Plan

The Draft Plan consists of two Volumes as follows:

- Volume I: Written Statement

The Written Statement comprises of 12 Chapters, providing objectives for each Chapter as follows:

- Chapter 1: Introduction and Vision
- Chapter 2: Core Strategy and Settlement Policy
- Chapter 3: People, Places and Housing
- Chapter 4: Towns and Villages
- Chapter 5: Rural Development and Natural Resources
- Chapter 6: Economic Development
- Chapter 7: Infrastructure, Transport and Communications
- Chapter 8: Climate Action, Energy and Environment
- Chapter 9: Built Heritage
- Chapter 10: Natural Heritage
- Chapter 11: Social, Community and Cultural Development
- Chapter 12: Development Management Standards

- Volume II: Town and Settlement Plans.

Volume II contains a number of Settlement Plans, Village Plans and Area Plans and accompanying maps.

In an effort to ensure that the planning system at local level does not present itself as excessively complex, and to also ensure that detailed plans for the towns of the County are kept up to date, a number of Local Area Plans prepared under the Roscommon County Development Plan 2014-2020 have been reviewed in the context of their identified roles in this new County Development Plan. Accordingly, Volume II contains Settlements Plans for the 'Self-Sustaining Towns' of Ballaghaderreen, Castlerea, Elphin and Strokestown. Land use zoning is included for these four plans.

It also includes twenty-nine Village Plans for smaller rural settlements which have been identified as having the potential to accommodate modest levels of growth, compatible with their existing scale, services and function. Land use zoning is not included for these plans.

Volume II also includes Area Plans for the Hodson Bay / Barrymore area in the south of the County, and for the Lough Key Area in the north, with the latter replacing the Lough Key Local Area Plan 2015-2021. Land use zoning is not included for these plans.

Associated Strategies and Assessments include a Housing Strategy, Renewable Energy Strategy, County Roscommon Retail Strategy, Landscape Character Assessment, Record of Protected Structures and Environmental Assessments.

### 2.3 Plan Vision

The Strategic Vision of the Draft Plan is detailed in the Plan as follows:

*"Roscommon County Council is committed to working for the common good of the people of County Roscommon, and through this County Development Plan will set out a positive and sustainable approach to developing the county economically, socially and culturally for the benefit of current and future generations. The path to future development will recognise, protect and enhance the distinct urban and rural environments of the county, but will also recognise the interdependent nature of those environments. There will be a strong focus on the regeneration and renewal of the towns*

*and villages of the county, in order to return them to a position of being the major drivers in the county, to once again become vibrant and attractive places, capable of attracting new residents, inward investment and increased employment.*

*The Council will also recognise the rural attributes of County Roscommon and policies will ensure that this Plan enhances the lives of people who live in, work and visit the county, whilst protecting the natural and built environment.*

*The future envisioned in this six year Plan reflects at the local level the strategic vision set out in the Regional Spatial and Economic Strategy for the Northern and Western Region - to make this "a vibrant, connected, natural, inclusive and smart place to work and live." Roscommon County Council intends that that this ambitious vision for will be achieved for County Roscommon through a collaborative approach between the Council, community, and wider stakeholders."*

## 2.4 Strategic Aims

The Strategic Aims for the Future Development of County Roscommon are detailed in the Draft Plan as follows:

1. Achieve a transition to a competitive, greener, low carbon, climate resilient and environmentally sustainable county, facilitated through reducing the need to travel, by integrating land use and sustainable modes of transport, by reducing the use of non- renewable resources and by promoting and facilitating renewal energy initiatives on a domestic and commercial scale.
2. Plan for a population uplift of 6,387 persons / 2,353 housing units during the Plan period. In doing so, ensure increased alignment between the location of population growth and employment growth.
3. Direct a significant proportion of the county's assigned population growth to the Athlone West area of Athlone (in recognition of the NPF designation of Athlone as a Regional Growth Centre) and to Roscommon town (as a designated Key Town in the RSES for the Northern and Western Region), thereby enabling the creation of a critical mass in those areas for the provision of increased services, facilities, and employment opportunities.
4. Promote the highest quality living environment possible, in both urban and rural areas, for all inhabitants of County Roscommon to enjoy.
5. Promote the regeneration and renewal of towns and villages throughout County Roscommon, and create healthy place-making by improving the attractiveness, quality, design, viability and vibrancy of towns and villages. This will be achieved in part through a focus on the redevelopment / development of /infill / brownfield lands within the existing built settlement footprints, in accordance with the principle of compact growth as set out in the NPF.
6. Promote the development of the towns and villages throughout County Roscommon to their full economic and social potential in order to support and enhance both the resident/hinterland community and economic and employment base and to enable towns and villages become self-sustaining, sustainable and balanced.
7. Encourage and facilitate the provision of high quality housing, at density levels appropriate to its setting, located in optimum locations and aligned with adequate infrastructure, services and amenities. An appropriate mix of housing types and tenure will be encouraged in order to ensure that communities are enabled to grow and develop in an inclusive manner.
8. Develop and promote the towns and villages of the county as attractive residential alternatives to single dwellings in the open countryside.
9. Continue to recognise that County Roscommon is a predominantly rural county and plan to facilitate a balance between facilitating residential development in the open countryside and reinvigorating the towns and villages.
10. Sustain rural communities by supporting agriculture, rural based economic activity, promoting balanced development of rural settlements and maintaining a stable population base.
11. Protect and enhance the natural assets of County Roscommon, including clean water, biodiversity, landscape, green infrastructure, heritage and agricultural land.
12. Foster the creation of an attractive and competitive business environment by supporting economic development, job creation, tourism and prosperity for all.
13. Ensure that the county is served by adequate community facilities and amenities, which add to the quality of life of residents of the county.
14. To protect, conserve and enhance the built and natural heritage and the landscape of County Roscommon for future generations; and reinforce the distinctive character of the county through ensuring that recognised sites and species of environmental importance are conserved and managed appropriately.

## 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 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 III 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<sup>1</sup> are as follows:

Alteration No.		
MA 10	MA 60	MA 120
MA 46	MA 91	MA 148
MA 50	MA 92	MA 150
MA 51	MA 93	MA 173
MA 56	MA 112	MA 174
MA 57	MA 115	MA 177

## 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, Roscommon 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: Housing; Landscape; Climate Action, Energy and Environment; Built Environment; Sustainable Transport; Flood Risk Management; Green Infrastructure Provisions; Social, Community and Cultural Development; Natural Heritage; and Development Management Standards. The undertaking of this SEA process and the associated AA and SFRA processes contributed towards the integration of environmental considerations into individual Plan provisions as summarised 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 of the main 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 years 2018-2040. The NPF is to be implemented through Regional Spatial and Economic Strategies (RSESs) and lower tier Development Plans and Local Area Plans. The RSES for the Northern and Western 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 Northern and Western Region. The County Development Plan will, in turn, guide lower-level strategic actions, such as 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.

<sup>1</sup> For detail please refer to Proposed Material Alterations document.



## 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 2016-2022 Plan has contributed towards environmental protection within County Roscommon. If the 2016-2022 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 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 interactions if effects arising from environmental vectors.
- Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of development on contaminated lands.
- Potential for riverbank erosion.
- Potential adverse effects upon the status of water bodies and entries to the WFD Register of Protected Areas (ecological and human value), arising from changes in quality, flow and/or morphology.
- Increase in flood risk and associated effects associated with flood events.
- Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts).
- Failure to adequately treat surface water run-off that is discharged to water bodies (water services infrastructure and capacity ensures the mitigation of potential conflicts).
- Failure to comply with drinking water regulations and serve new development with adequate drinking water (water services infrastructure and capacity ensures the mitigation of potential conflicts).
- Increases in waste levels.
- Potential impacts upon public assets and infrastructure.
- Interactions between agriculture and soil, water, biodiversity and human health – including phosphorous and nitrogen deposition as a result of agricultural activities and the production of secondary inorganic particulate matter.
- Potential conflict between development under the Plan and aiming to reduce carbon emissions in line with local, national and European environmental objectives.
- Potential conflicts between transport emissions, including those from cars, and air quality.
- Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors.
- Potential conflicts with climate adaptation measures including those relating to flood risk management.
- Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.
- Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.

### 3.3 Biodiversity and Flora and Fauna

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

The most ecologically sensitive, heavily designated and protected areas within County Roscommon include extensive network of wetlands comprising: lakes; ponds; rivers; streams; eskers; peatlands; turloughs; watercourses; fens; reservoirs; floodplains; marshes; swamps; and wet woodlands. These habitats support a variety of species and ecosystems that contribute to the biodiversity of the County. Rural and agricultural areas (including marginal land such as hedgerows and rough grassland) that may include ecological sensitivities occur throughout the County. A network of green spaces, including gardens, parks, graveyards, amenity walks, railway lines and patches of woodland and scrub, provide habitats and ecological connectivity within the County and beyond.

Designated sites within the County include Special Areas of Conservation<sup>2</sup> (SACs) and Special Protection Areas<sup>3</sup> (SPAs). These are mapped on Figure 3.1. There are 38 European sites (29 SACs and nine SPAs) are designated within or partially within County Roscommon. Other ecological designations occur within and adjacent to the County and these are detailed in the main SEA Environmental Report.

CORINE<sup>4</sup> land cover mapping shows that the most dominant land cover types within the Plan area are pastures and agricultural lands. Concentration of peat bogs occur mainly in the north-west, north-east and south of the County. Categories from CORINE mapping that may indicate areas with the potential for Annex I habitats include: peat bogs; natural grassland; water bodies; mixed forests; coniferous forest; broad-leaved forest; inland marshes; moors and heaths; complex cultivated patterns; non-irrigated land; pastures; transitional woodland and scrub; and land principally occupied by agriculture with areas of natural vegetation.

### 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 include: 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); and Climate change.

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

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.

## 3.4 Population and Human Health

In the 2016 Census the total population of County Roscommon was identified as being 64,544 persons, showing an increase in total population of 0.7% (479 persons) since the previous Census. The population of County Roscommon is estimated to increase further, up to 70,500-71,500 persons by 2026 and 73,000-74,500 persons by 2031, as set out by the National Planning Framework (NPF) and the Northern and Western Regional Spatial and Economic Strategy 2020-2032.

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

<sup>2</sup> SACs have been selected for protection under the European Council Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC) due to their conservation value for habitats and species of importance in the European Union. The Habitats Directive seeks to establish Natura 2000, a network of protected areas throughout the EU. It is the responsibility of each member state to designate SACs to protect habitats and species, which, together with the SPAs designated under the 1979 Birds Directive, form Natura 2000.

<sup>3</sup> SPAs have been selected for protection under the 1979 European Council Directive on the Conservation of Wild Birds (79/409/EEC) - referred to as the Birds Directive - due to their conservation value for birds of importance in the EU.

<sup>4</sup> The CORINE (Coordinated Information on the Environment) land cover data series was devised as a means of compiling geo-spatial environmental information in a standardised and comparable manner. CORINE has become a key data source for informing environmental and planning policy on a national and European level. The main land cover type in Ireland is agricultural land including forestry, which accounts for two-thirds of the national landmass. Most of this is permanent grassland pastures. 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.

- 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.

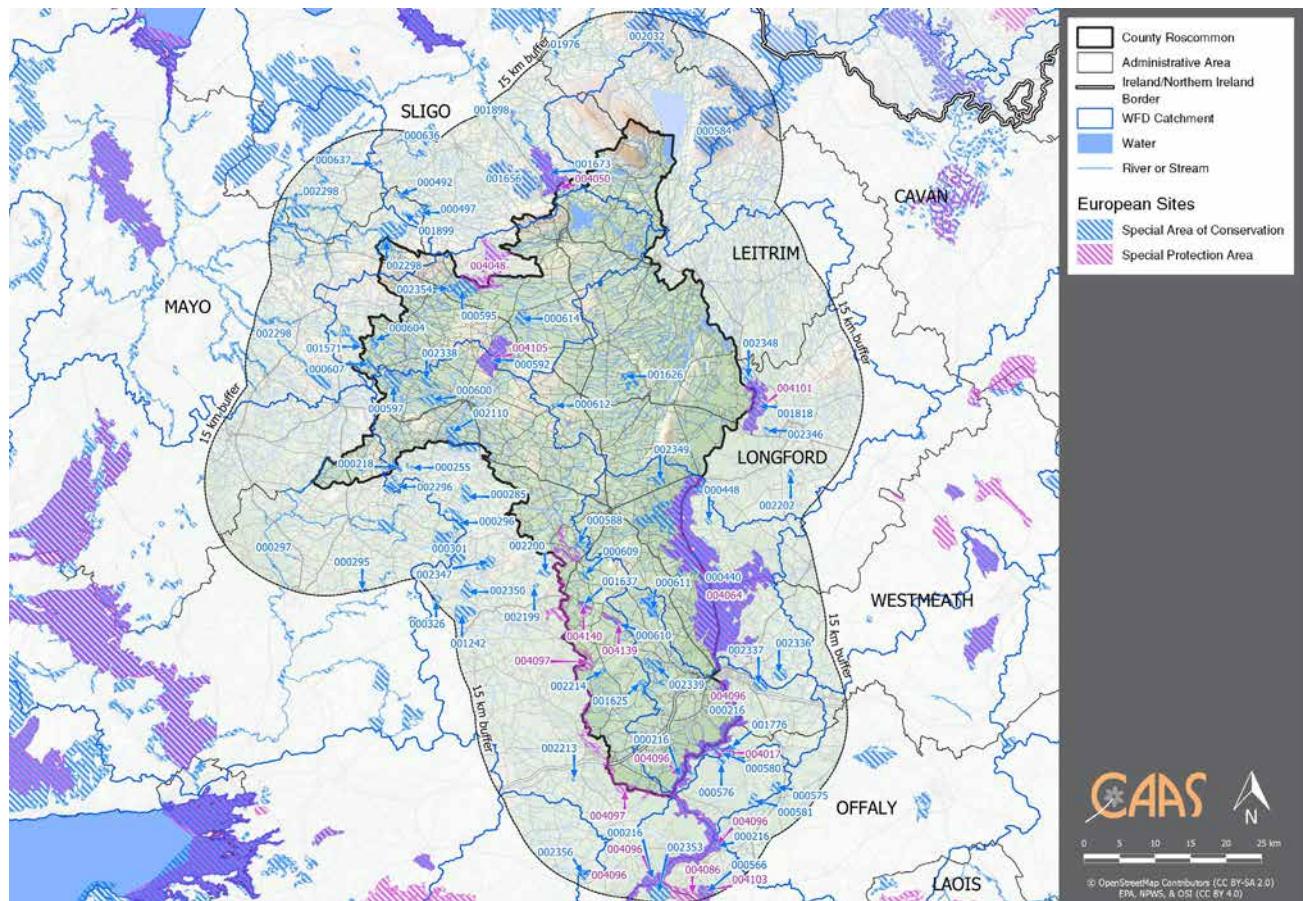


Figure 3.1 European sites within and within 15 km of the County

## 3.5 Soil

Luvisols<sup>5</sup> and peat soils are the two most dominant soil types across the County. Active blanket bogs and active raised bogs are considered to be priority habitats, listed on Annex I of the EU Habitats Directive. Ombrotrophic (rain-fed) and minerotrophic (groundwater fed) peat soils are often indicative of areas that are the most sensitive to development due to ecological sensitivities and impeded drainage issues. Many of these peat areas are also subject to ecological designations

<sup>5</sup> Luvisol soils are generally fertile, widely used for agriculture and associated with significant accumulation of clay.  
CAAS for Roscommon County Council

Geological Survey of Ireland coordinates the Irish Geological Heritage Programme, which seeks to identify and select sites of geological interest within each county across the country. The audit of County Geological Sites in County Roscommon was completed in 2012 and identified 29 County Geological Sites.

## 3.6 Water

### Surface and Ground Water Status

Most of the County is situated within the Upper Shannon catchments and partially within the Moy and Killala Bay, Sligo Bay and Drowse, and Corrib catchments. The main waterways in the County include the River Shannon, which flows along the eastern county border into the Lough Ree and the River Suck, which flows along the western border of the County.

The WFD status of most of the rivers and lakes within the County is classified as *moderate*, *good* and *high*; however, lakes Bofin and Meelagh and sections of rivers (including: Suck; Strokestown; Shannon Upper; Smaghraan; Shad Lough Stream; Scramoge; Feorish; Hind; Owenur; Mountain; Lissaphobble; Jiggy; Feorish; Derryhippoo; Curraghroe Stream; Cross; Clooneigh; Clogher; Carricknabraher; Breedoge; and Ballydangan) are identified as *poor* due to unsatisfactory ecological/biological and/or physio-chemical status. *Moderate* and *poor* status water bodies have the potential to fail the requirement of *good* status set out by the Water Framework Directive (WFD). The WFD surface water status (2013-2018) of rivers within and surrounding the County is shown on Figure 3.2.

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

### 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*, throughout the County; and
- *Extreme vulnerability and extreme (rock at or near surface or karst)* in various locations, including upland areas.

### Flooding

Certain areas across the County are at risk of flooding from sources including groundwater, pluvial<sup>6</sup> and fluvial<sup>7</sup>. There are various historic and predictive indicators of flood risk in the County, such as those along the Rivers Shannon and Suck and surrounding the Lough Ree.

---

<sup>6</sup> Resulting from high intensity rainfall events where run-off volume exceeds capacity of surface water network.

<sup>7</sup> Watercourse capacity is exceeded or the channel is blocked and excess water spills from the channel onto adjacent floodplains.

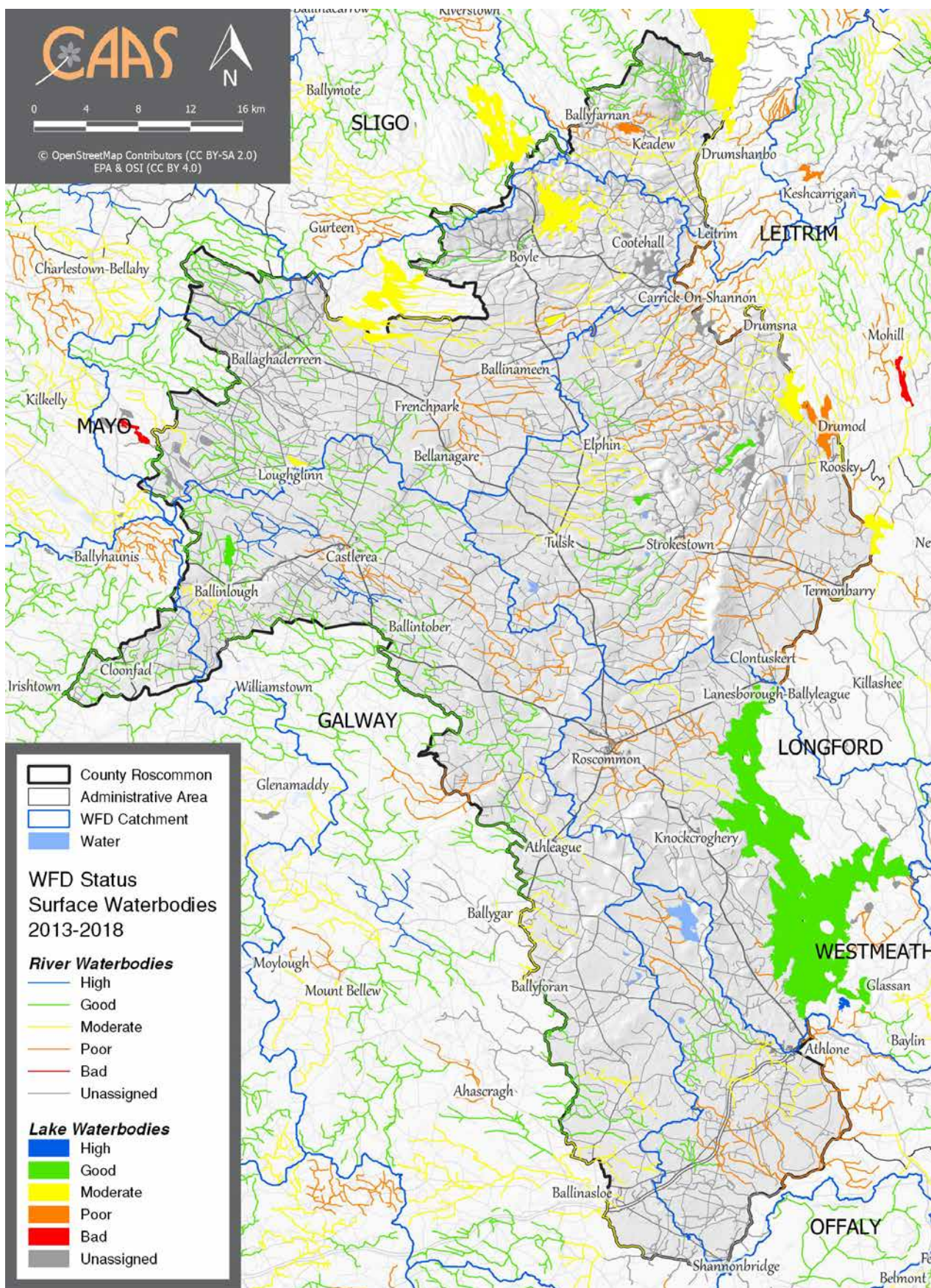


Figure 3.2 Surface Water Status (2013-2018)

### 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, CAAS for Roscommon County Council

commercial services developments, waste management processes and fluorinated gases equipment (such as refrigeration and fire protection systems).

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

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

The Climate Change Advisory Council's Annual Review 2020 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. It is noted that additional measures within the recent Climate Action Plan are not included.

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

The National Adaptation Framework Department of Communications, Climate Action and Environment, 2018), sets out the national strategy to reduce the vulnerability of the country to the negative effects of climate change and to avail of positive impacts. The National Adaptation Framework outlines a whole of government and society approach to climate adaptation. Under the Framework, a number of Government Departments will be required to prepare sectoral adaptation plans in relation to a priority area that they are responsible for.

The Roscommon County Council Climate Change Adaptation Strategy 2019-2024 seeks to:

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

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

- Air quality in Ireland is generally good however there are localised issues;
- Nitrogen dioxide (NO<sub>2</sub>) from transport emissions is polluting urban areas; and
- Ireland was above World Health Organization air quality guideline value levels at 33 monitoring sites – mostly due to the burning of solid fuel within settlements across the country.

With regard to solutions, the report identifies that:

- To tackle the problem of particulate matter, clean ways of heating homes and improve energy efficiency of homes can be progressed; and
- To reduce the impact of nitrogen dioxide, transport options in the Government's Climate Action Plan can be implemented and transport choices can be considered by individuals.

In order to comply with European Directives relating to air quality, the EPA manages the National Ambient Air Quality Network and measures the levels of a number of atmospheric pollutants at locations across the country. The current <sup>8</sup> air quality within the Plan area 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).

<sup>8</sup> 02/03/2021 (<http://www.epa.ie/air/quality/>)  
CAAS for Roscommon County Council

### **Public Assets and Infrastructure**

Public assets and infrastructure that have the potential to be impacted upon by the Plan, if unmitigated, include; settlements; resources such as public open spaces, parks and recreational areas; public buildings and services; transport and utility infrastructure (electricity, gas, telecommunications, water supply, wastewater infrastructure etc.); forestry; and natural resources that are covered under other topics such as water and soil.

### **Waste Water**

The County is served by 32 Wastewater Treatment Plants (WWTPs), the majority in the ownership and maintenance of Irish Water. In unserviced areas and outside the main settlements, the main method of sewage disposal is by individual septic tanks and proprietary wastewater treatment systems.

There is one urban area in the County that is listed by the EPA as a Priority Area (Roscommon), where improvements are required to resolve urgent environmental issues with respect to wastewater treatment.

Irish Water has provided information on wastewater treatment capacity, constraints and projects planned within the County to improve the existing network, to assist the Council in the preparation of the new County Development Plan. This information indicates where there may be wastewater treatment capacity available to accommodate growth ("headroom") in areas serviced by a public wastewater treatment plant. Spare treatment capacity is identified as being available in all of these settlements except for Ballaghaderreen. The highest levels of headroom are available at Hodson Bay, Boyle, Strokestown, Roosky and Knockcroghery.

### **Water Supply**

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. There are no Roscommon drinking water supplies listed on the most recent RAL (Q4 of 2020 published in January 2021).

Irish Water has provided information on capacity, production and headroom for 11 Water Treatment Plants (WTP) in County Roscommon. Spare headroom is identified as being available in all of these WTPs, except for the Grange WTP. The most headroom is available in Lough Gara WTP.

### **Waste Management**

Waste management across the County is guided by the Connacht-Ulster 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.

## 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.

There are hundreds of Recorded Monuments within the Plan area. Clusters of monuments are concentrated within and adjacent to the existing built-up footprint of the County's settlements and in the rural areas. There are over 4400 of Recorded Monuments within the County, including enclosures, linear earthworks, tombs, churches and graveyards.

The Rathcroghan area of County Roscommon is the location of a complex of archaeological monuments that are of major national significance, reflecting on 5,000 years of human activity from Neolithic to Medieval periods. Rathcroghan is the traditional site of the seat of Connaught's Iron Age elite and the burial place of the pagan kings of Ireland. 'Rathcroghan Archaeological Complex' is nominated to a Tentative UNESCO World Heritage Site List, for future designation as a UNESCO World Heritage Site.

### 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 hundreds of entries to the Record of Protected Structures within the County. Similar to the general spatial spread of archaeological heritage, clusters of architectural heritage are indicated within the County's settlements. Notable Protected Structures in the County include: Clonalis House and Strokestown Park House and cathedrals; Roscommon Castle; Elphin Windmill; Boyle Abbey; Cloontykilla Castle; and Stonecourt Former Gaol.

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 six ACAs designated within the County: Roscommon ACA; Elphin ACA; Strokestown ACA; Castlerea ACA; Boyle ACA; and Ballaghaderreen ACA.

### Existing Problems

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

## 3.10 Landscape

Roscommon is an inland county, located within the geographic centre of Ireland, bounded by counties Galway, Leitrim, Longford, Mayo, Offaly, Sligo and Westmeath. Wetlands are a significant feature of the landscape in County Roscommon, including lakes, eskers and turloughs, bogs, as well as many rivers and streams and their associated floodplains. The County is notable in terms of its rivers and lakelands, with the eastern boundary demarcated by the River Shannon and Lough Ree, while Lough Key in the north is one of the county's most notable natural assets.

The Landscape Character Areas in County Roscommon are classified according to value (see Figure 3.3): 'Exceptional Value'; 'Very High Value'; 'High Value'; and 'Moderate Value'. The 'Exceptional Value' areas are the most sensitive to development; developments that are likely to create a significant visual impact will best be absorbed in areas where the landscape is most robust, i.e. where the landscape has the capacity to absorb development without significantly changing its character. Two landscapes in the County are classified as 'Exceptional Value': Tusk and Rathcroghan Plateau in the centre of the County; and the Lough Key and Boyle River Network in the north-east of the County.



### 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

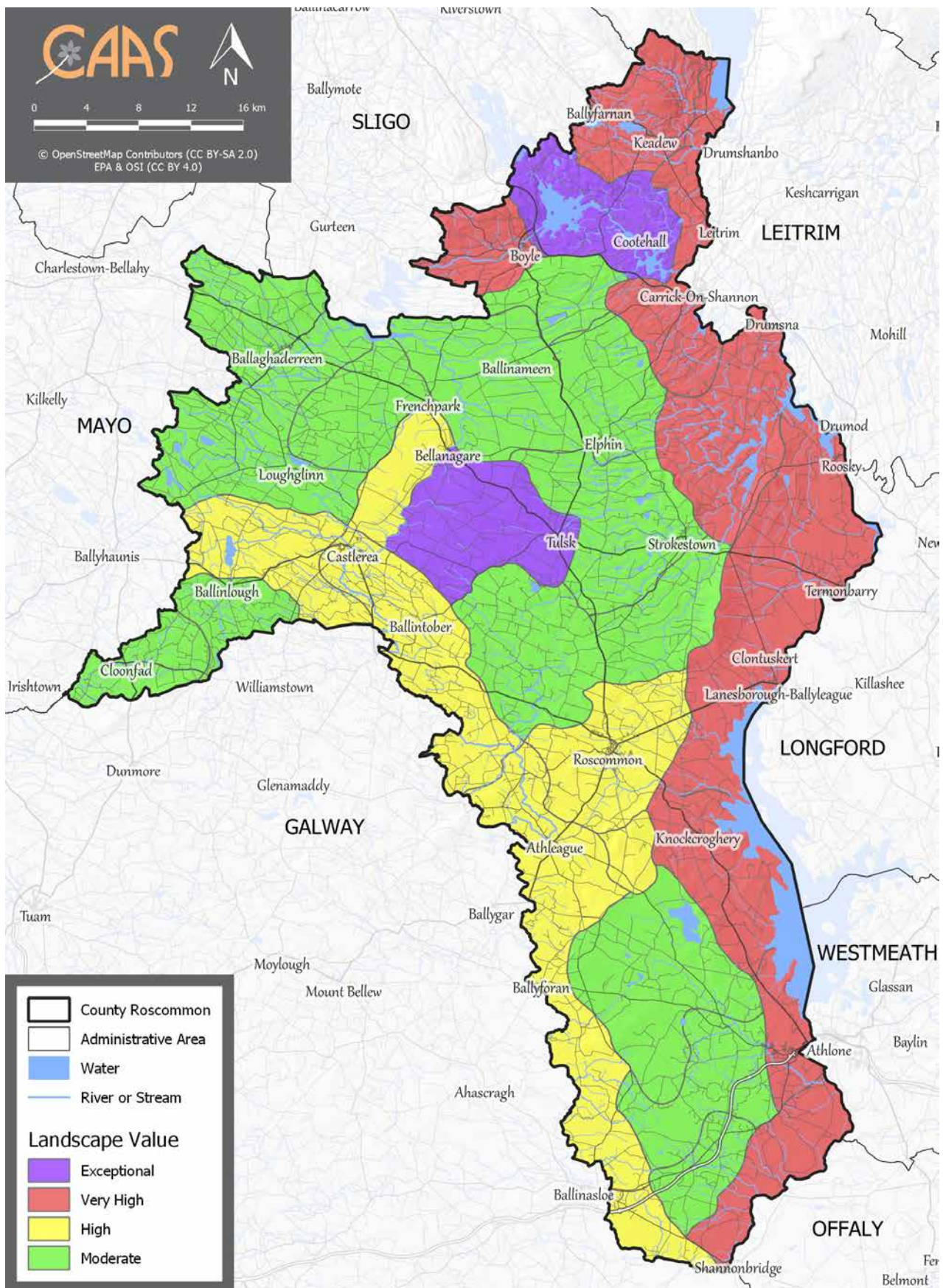


Figure 3.3 Landscape Value

### 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 Proposed Material Alterations and the alternatives are evaluated in order to help identify which provisions would be likely to result in significant environmental effects and where such effects would be likely to occur, if - in the case of adverse effects - unmitigated.

**Table 3.1 Strategic Environmental Objectives**

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

Environmental Component	Guiding Principle	Strategic Environmental Objectives
		<ul style="list-style-type: none"> <li>• Reduction of emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter which are responsible for acidification, eutrophication and ground-level ozone pollution</li> <li>• Meet Air Quality Directive standards for the protection of human health – Air Quality Directive</li> <li>• Significantly decrease noise pollution by 2020 and move closer to WHO recommended levels</li> </ul>
<b>Climatic Factors</b>	Achieving transition to a competitive, low carbon, climate-resilient economy that is cognisant of environmental impacts	<ul style="list-style-type: none"> <li>• To minimise emissions of greenhouse gasses</li> <li>• Integrate sustainable design solutions into the County's infrastructure (e.g. energy efficient buildings; green infrastructure)</li> <li>• Contribute towards the reduction of greenhouse gas emissions in line with national targets</li> <li>• Promote development resilient to the effects of climate change</li> <li>• Promote the use of renewable energy, energy efficient development and increased use of public transport</li> </ul>
<b>Cultural Heritage</b>	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
<b>Landscape</b>	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. Available reasonable alternatives for the County Development Plan are provided under Tiers 1 to 5 detailed below. The Alternatives are not significantly affected by the Proposed Material Alterations.

### 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 Northern and Western 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 Assessment of Tier 1: Positioning under the Settlement Hierarchy

- **Alternative A:** Ballaghaderreen and Castlerea identified as Self-Sustaining Growth Towns.
- **Alternative B:** Ballaghaderreen and Castlerea identified as Self-Sustaining Towns.

**Alternative A** would provide an additional extent of growth to Ballaghaderreen and Castlerea. This growth would have to be provided for outside of and somewhat removed from the existing development envelope. By facilitating such growth, Alternative A would provide for a less sustainable Settlement Hierarchy with growth allowed in similar settlements reduced to the detriment of these settlements. Alternative A would help to facilitate a more sprawled form of development that would reduce efficiencies with regard to infrastructural investment.

Alternative A would result in a higher number of car journeys, conflicting with efforts to improve sustainable mobility and meet greenhouse gas emission reduction targets. Alternative A would provide for higher levels of greenfield development (and associated adverse environmental effects) in less well-served, less-well connected and more sensitive locations surrounding these settlements. This type of development would result in a higher adverse environmental impact, including effects on water, drinking water, human health, ecology and landscape designations.

**Alternative B** would provide economic and housing growth and investment in services at Ballaghaderreen and Castlerea commensurate with the size and function of the towns. This alternative takes into account the function of Ballaghaderreen and Castlerea in terms of their wider context as services providers and their capacity to accommodate additional development, including housing, employment and services. By facilitating population and employment growth commensurate to the attributes of these settlements, Alternative B would provide for a more sustainable Settlement Hierarchy and a greater level of sustainable development. Alternative B would help to facilitate a more compact form of development at these settlements that would help to maximise benefits from infrastructural investment.

Alternative A would result in lower levels of commuting, supporting efforts to improve sustainable mobility and meet greenhouse gas emission reduction targets. Alternative B

would provide for lower levels of greenfield development (and associated adverse environmental effects) in better serviced, better connected and more sensitive locations. This type of development would result in less potential environmental impacts, including on water, drinking water, human health, ecology and landscape designations.

**Selected Alternative for the Plan: Alternative B.**

## 4.4 Assessment of Tier 2: Alternatives for Population Allocations

Allocating higher or lower population allocations/future growth to different settlements within the County may provide reasonable alternatives for consideration.

- **Alternative A:** Retaining proportion of population allocated under the current Plan to Rural Settlements in the County and the Open Countryside
- **Alternative B:** Reduce (by around a half) the proportion of population allocated under the current Plan to Rural Settlements in the County and the Open Countryside

**Alternative A** involves a more dispersed population approach, which has the potential to undermine the role of the larger settlements and make it more difficult to deliver key infrastructure and placemaking projects. It would not reduce the proportion of rural one-off housing in the County. This alternative would also direct development towards smaller villages which would also promote compact growth and provide viable alternatives to rural housing.

Development would be more likely to occur on greenfield lands as there are less infill and brownfield sites available in Rural Settlements and the Open Countryside. Services and public transport are more limited and there would be a greater dependence on commuting for employment and accessing services. Alternative A would result in higher levels of commuting, conflicting with efforts to improve sustainable mobility and meet greenhouse gas emission reduction targets. Alternative A would provide for higher levels of greenfield development (and associated adverse environmental effects) in less well-serviced, less-well connected and more sensitive locations in the County. This type of development would result in a higher adverse environmental impact, including effects on water, drinking water, human health, ecology and landscape designations.

**Alternative B** is consistent with the NPF and RSES as it would support focussing the greatest amount of development into the key settlements and self-sustaining growth towns, which would strengthen these settlements and support infrastructure and placemaking delivery. It would allow for more concentrated, compact growth and significantly reduce the proportion of rural one-off housing in the County. This alternative would also direct development towards smaller villages which would also promote compact growth and provide viable alternatives to rural housing.

The concentration of growth into the larger settlements would ensure more sustainable growth, where there are greater opportunities to consolidate development in the existing urban footprint through infill and brownfield development. These settlements have a number of positive attributes including a greater range of services, transport links, a stronger employment base, and a greater capacity to facilitate population and economic growth. By concentrating in the larger settlements in the County, Alternative B would result in lower levels of commuting, benefiting efforts to improve sustainable mobility and meet greenhouse gas emission reduction targets. Development in these centres would be better serviced (including with transport and water services) and there would be a reduced need for greenfield development (and associated adverse environmental effects) in less well-serviced, less-well connected and more sensitive locations in the County.

**Selected Alternative for the Plan: Alternative B.**

## 4.5 Assessment of Tier 3: Alternatives for Rural Areas

### Rural Areas under Strong Urban Influence/Pressure

- **Tier 3 (i) Alternative A:** Designate Rural Areas under Strong Urban Influence/Pressure that require various criteria to be demonstrated in advance of planning permission being granted for a single dwelling for permanent occupation.
- **Tier 3 (i) Alternative B:** Do not designate Rural Areas under Strong Urban Influence/Pressure and assess each planning application on its merits.

**Alternative A** provides for a robust and transparent policy approach to manage rural housing.

Restricting the development of single dwellings in rural areas that are under strong urban influence/pressure 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.

Single dwellings in rural areas would be facilitated as appropriate 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** Provides a vague and unclear policy approach to rural housing and risks facilitating a significant increase in urban-generated one-off housing in the open countryside which will undermine the role of small towns and villages and have consequences for the environment.

Not restricting the development of single dwellings in rural areas that are under strong urban influence/pressure 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 housing 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 the Plan: Alternative A.**

### Serviced and Unserviced Settlements

- **Tier 3 (ii) Alternative A:** Provide focus to and targeted provisions for encouraging residential development in serviced and unserviced settlements, as an alternative to rural one-off housing;
- **Tier 3 (ii) Alternative B:** Serviced and unserviced settlements are included but there is no focus or no targeted provisions for these locations to act as alternatives to one-off housing in the open countryside.

**Alternative A** recognises the important role that smaller settlements play in sustaining rural communities and in providing a proactive approach to the sustainable development of rural areas.

Providing focus to and targeted policies/objectives for serviced and unserved settlements would help to provide a viable alternative to one-off housing in the open countryside. Development within these settlements would be more efficiently and more likely to be served by existing or new infrastructure (including water services infrastructure and safe walking and cycling facilities) 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** has the potential to undermine the role that smaller settlements play in sustaining rural communities and providing a viable alternative to one off housing.

Not providing a focus to and targeted policies/objectives for serviced and unserved settlements 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 safe walking and cycling facilities) 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 the Plan: Alternative A.**

## 4.6 Assessment of Tier 4: Alternatives for Densities

- **Alternative A:** Application of a single standard density across the whole County in order to calculate the potential residential yield relating to land zoned for residential purposes for the Core Strategy.
- **Alternative B:** Application of different densities at different locations, as appropriate; higher densities where sustainable transport mode opportunities are available and lower densities where constraints are presented by, for example, cultural heritage designations or the local road network.

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

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

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

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

**Selected Alternative for the Plan: Alternative B.**

## 4.7 Assessment of Tier 5: Alternatives for Land Use Zoning

- **Alternative A:** Current, Conventional LUZ Approach
- **Alternative B:** New, More Flexible and Facilitative LUZ Approach

**Alternative A** has previously given rise to limitations on developments which may otherwise have been facilitated, had they not been contrary to specific zoning objectives.

Under this alternative, development that could be sustainably accommodated within settlements would have the potential to be pushed out towards areas that are less well-serviced and less well-connected, resulting in unnecessary potentially significant adverse effects on all environmental components. Pressure would occur for development greenfield lands away from settlements. This type of development would result in a higher adverse environmental impact, including effects on water, drinking water, human health, ecology and landscape designations. Alternative A would result in higher levels of commuting, conflicting with efforts to improve sustainable mobility and meet greenhouse gas emission reduction targets.

**Alternative B** combines the use of mixed-use zoning and development areas. This expansive zoning component provides an overall framework designed to direct development in an orderly and appropriate manner and to provide for a greater mix of complementary uses in appropriate locations. The use of these strategic development areas provides more detailed guidance and allows for community gain priorities to be built into new development proposals on suitable sites.

Under this alternative, development would be more likely to be sustainably accommodated within settlements, including on infill and brownfield sites. This would help to ensure more sustainable growth, where there are greater opportunities to consolidate development in the existing urban footprint. Alternative B would result in lower levels of commuting, benefiting efforts to improve sustainable mobility and meet greenhouse gas emission reduction targets. Development in these centres would be better serviced (including with transport and water services) and there would be a reduced need for greenfield development (and associated adverse environmental effects) in less well-serviced, less-well connected and more sensitive locations in the County.

Proposals under either approach would need to continue to be assessed on their own merits and would be facilitated only where the Planning Authority is satisfied that said proposal is in accordance with the proper planning and sustainable development of the area.

**Selected Alternative for the Plan: Alternative B.**



## 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 Overall Evaluation – Summary of Effects arising from the Proposed Material Alterations**

Alteration Ref. <sup>9</sup>	Summary of Evaluation
MA 10	This alteration includes reference to the development of the recreational and amenity potential of waterways in the context of Athlone and the River Shannon and therefore has the potential, if unmitigated, to impact upon the integrity of various European sites, specifically the River Shannon Callows and Lough Ree Special Areas of Conservation and the Lough Ree and Middle Shannon Callows Special Protection Areas. As this alteration could potentially impact upon the protection of a European site, Stage 2 AA is required. Consequently, SEA was advised as prudent. The mitigation already contained within the Draft Plan will ensure the mitigation of potential effects arising so that the integrity of these sites are protected.
MA 46 MA 56 MA 57 MA 60	These alterations could be considered mitigation in relation to the Plan elements that could potentially affect the integrity of European sites under the Plan, further to that already included in the Draft Plan. Therefore it was deemed prudent to undertake Stage 2 AA. Consequently, SEA was advised as prudent. The changes arising from the alterations would also benefit the protection and management of various environmental components, in addition to European sites, including water, soil, human health and the adequate provision of water services.
MA 50 MA 51 MA 173 MA 174 MA 177	These alterations would not provide the most evidence-based framework for development and has the potential to: <ul style="list-style-type: none"> <li>Undermine and negate practical measures to reduce greenhouse gas emissions climate change in compliance with high-level climate action policy; and</li> <li>Restrict the potential for renewable energy development in the County, which is contrary to national energy policy that supports reductions in the reliance on fossil fuels and the development of renewable energy resources.</li> </ul>
MA 91 MA 92 MA 93 MA 112 MA 115 MA 120 MA 148 MA 150	Much of these lands are greenfield and additional development in these locations could present potentially significant adverse effects on various environmental components that would be additional and unnecessary. Such effects would need to be mitigated and would include: <ul style="list-style-type: none"> <li>Effects on the adjacent Cork Harbour SPA – as a result of loss grasslands where birds feed and increases in amenity usage</li> <li>Effects on other ecology and ecological connectivity</li> <li>Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces</li> <li>Potential conflicts with efforts to maximise sustainable compact growth and sustainable mobility</li> <li>Potential conflicts with carbon emission reduction targets in line with local, national and European environmental objectives.</li> <li>Adverse visual effects.</li> </ul> <p>The mitigation already contained within the Draft Plan will help ensure the mitigation of potential effects arising so that protection of the environment is contributed towards.</p>

<sup>9</sup> For detail on Proposed Material Alterations please refer to Proposed Material Alterations document.

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

Mitigation was achieved through the:

- Strategic work undertaken by the Council to ensure contribution towards environmental protection and sustainable development<sup>10</sup>;
- Considering alternatives for the Plan, to which the Proposed Material Alterations relate<sup>11</sup>;
- Integration of environmental considerations into zoning provisions of the Plan, to which the Proposed Material Alterations relate<sup>12</sup>; and
- Integration of individual SEA, AA and SFRA provisions into the text of the Plan, to which the Proposed Material Alterations relate. It is intended that recommendations yet to be integrated into the Plan will be integrated before adoption of the Plan (refer to Table 9.1 of the main SEA Environmental Report).

### 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.

---

<sup>10</sup> 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, Roscommon 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:

- Housing;
- Landscape;
- Climate Action, Energy and Environment;
- Built Environment;
- Sustainable Transport;
- Flood Risk Management;
- Green Infrastructure Provisions;
- Social, Community and Cultural Development;
- Natural Heritage; and
- Development Management Standards.

<sup>11</sup> Although strategic alternatives in relation to the content of the Plan were significantly limited for the Draft Plan to which the Proposed Material Alterations relate (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.

<sup>12</sup> 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 Northern and Western RSES. The detailed Plan preparation process undertaken by the Planning Department combined with specialist seeks to facilitate zoning that will help to avoid inappropriate development being permitted in areas of elevated sensitivity, such as in areas at risk of flooding or ecological sensitivity. Various provisions have been integrated into the Plan that provide for flood risk management and ecological protection and 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	Indicators	Targets	Sources	Remedial Action
<b>Biodiversity, Flora and Fauna</b>	<ul style="list-style-type: none"> <li>Condition of European sites</li> </ul>	<ul style="list-style-type: none"> <li>Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions in their land use plans and as a minimum, to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species</li> <li>Implement and review, as relevant, County Roscommon Heritage Plan 2017-2021</li> </ul>	<ul style="list-style-type: none"> <li>DHLGH report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive (every 6 years).</li> <li>DHLGH National Birds Directive Monitoring Report for the under Article 12 (every 3 years)</li> <li>Consultations with the NPWS</li> </ul>	<ul style="list-style-type: none"> <li>Where condition of European sites is found to be deteriorating this will be investigated with the Regional Assembly and the DHLGH to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance.</li> </ul>
	<ul style="list-style-type: none"> <li>Number of spatial plans that have included ecosystem services content, mapping and policy to protect ecosystem services when their relevant plans are either revised or drafted</li> </ul>	<ul style="list-style-type: none"> <li>Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions in their land use plans and as a minimum, to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species</li> <li>Implement and review, as relevant, County Roscommon Heritage Plan 2017-2021</li> </ul>	<ul style="list-style-type: none"> <li>Internal review of local land use plans</li> </ul>	<ul style="list-style-type: none"> <li>Review internal systems</li> </ul>
	<ul style="list-style-type: none"> <li>SEAs and AAs as relevant for new Council policies, plans, programmes etc.</li> </ul>	<ul style="list-style-type: none"> <li>Screen for and undertake SEA and AA as relevant for new Council policies, plans, programmes etc.</li> </ul>	<ul style="list-style-type: none"> <li>Internal monitoring of preparation of local land use plans</li> </ul>	<ul style="list-style-type: none"> <li>Review internal systems</li> </ul>
	<ul style="list-style-type: none"> <li>Status of water quality in the County's water bodies</li> </ul>	<ul style="list-style-type: none"> <li>Included under Water below</li> </ul>	<ul style="list-style-type: none"> <li>Included under Water below</li> </ul>	<ul style="list-style-type: none"> <li>Included under Water below</li> </ul>
	<ul style="list-style-type: none"> <li>Compliance of planning permissions with Plan measures providing for the protection of Biodiversity and flora and fauna – see Chapter 10 “Natural Heritage”</li> </ul>	<ul style="list-style-type: none"> <li>For planning permission to be only granted when applications demonstrate that they comply with all Plan measures providing for the protection of biodiversity and flora and fauna – see Chapter 10 “Natural Heritage”</li> </ul>	<ul style="list-style-type: none"> <li>Internal monitoring of likely significant environmental effects of grants of permission</li> </ul>	<ul style="list-style-type: none"> <li>Review internal systems</li> </ul>
<b>Population and Human Health</b>	<ul style="list-style-type: none"> <li>Implementation of Plan measures relating to the promotion of economic growth as provided for by Chapter 6 “Economic Development”</li> </ul>	<ul style="list-style-type: none"> <li>For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to the promotion of economic growth as provided for by Chapter 6 “Economic Development”</li> <li>By 2020 all citizens will have access to speeds of 30Mbps, and that 50% of citizens will be subscribing to speeds of 100Mbps (Also relevant to Material Assets)</li> </ul>	<ul style="list-style-type: none"> <li>Internal review of progress on implementing Plan objectives</li> <li>Consultations with DECC</li> </ul>	<ul style="list-style-type: none"> <li>Review internal systems</li> <li>Consultations with DECC</li> </ul>
	<ul style="list-style-type: none"> <li>Number of spatial concentrations of health problems arising from environmental factors resulting from development permitted under the Plan</li> </ul>	<ul style="list-style-type: none"> <li>No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan</li> </ul>	<ul style="list-style-type: none"> <li>Consultations with the Health Service Executive and EPA</li> </ul>	<ul style="list-style-type: none"> <li>Consultations with the Health Service Executive and EPA</li> </ul>

SEA Environmental Report Appendix IV: Non-Technical Summary

Environmental Component	Indicators	Targets	Sources	Remedial Action
	<ul style="list-style-type: none"> <li>Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures</li> </ul>	<ul style="list-style-type: none"> <li>Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures</li> </ul>	<ul style="list-style-type: none"> <li>CSO data</li> <li>Monitoring of Roscommon County Council's Climate Change Adaptation Strategy 2019-2024</li> </ul>	<ul style="list-style-type: none"> <li>Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, the DHLGH, DECC and NTA to develop a tailored response.</li> </ul>
	<ul style="list-style-type: none"> <li>Number of spatial plans that include specific green infrastructure mapping</li> </ul>	<ul style="list-style-type: none"> <li>Require all local level land use plans to include specific green infrastructure mapping</li> </ul>	<ul style="list-style-type: none"> <li>Internal review of local land use plans</li> </ul>	<ul style="list-style-type: none"> <li>Review internal systems</li> </ul>
<b>Soil (and Land)</b>	<ul style="list-style-type: none"> <li>Proportion of population growth occurring on infill and brownfield lands compared to greenfield (also relevant to Material Assets)</li> </ul>	<ul style="list-style-type: none"> <li>Maintain built surface cover nationally to below the EU average of 4%</li> <li>In accordance with National Policy Objectives 3c of the National Planning Framework, a minimum of 30% of the housing growth targeted in any settlement is to be delivered within the existing built-up footprint of the settlement</li> <li>To map brownfield and infill land parcels across the County</li> </ul>	<ul style="list-style-type: none"> <li>EPA Geoportal</li> <li>Compilation of greenfield and brownfield development for the DHLGH</li> <li>AA/Screening for AA for each application</li> </ul>	<ul style="list-style-type: none"> <li>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.</li> </ul>
	<ul style="list-style-type: none"> <li>Instances where contaminated material generated from brownfield and infill must be disposed of</li> </ul>	<ul style="list-style-type: none"> <li>Dispose of contaminated material in compliance with EPA guidance and waste management requirements</li> </ul>	<ul style="list-style-type: none"> <li>Internal review of grants of permission where contaminated material must be disposed of</li> </ul>	<ul style="list-style-type: none"> <li>Consultations with the EPA and Development Management</li> </ul>
	<ul style="list-style-type: none"> <li>Environmental assessments and AAs as relevant for applications for brownfield and infill development prior to planning permission</li> </ul>	<ul style="list-style-type: none"> <li>Screen for and undertake environmental assessments and AA as relevant for applications for brownfield and infill development prior to planning permission</li> </ul>	<ul style="list-style-type: none"> <li>Internal monitoring of grants of permission</li> </ul>	<ul style="list-style-type: none"> <li>Review internal systems</li> </ul>
<b>Water</b>	<ul style="list-style-type: none"> <li>Status of water bodies as reported by the EPA Water Monitoring Programme for the WFD</li> </ul>	<ul style="list-style-type: none"> <li>Not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status'</li> <li>Implementation of the objectives of the River Basin Management Plan</li> </ul>	<ul style="list-style-type: none"> <li>EPA Monitoring Programme for WFD compliance</li> </ul>	<ul style="list-style-type: none"> <li>Where water bodies are failing to meet at least good status this will be investigated with the DHLGH Water Section, the EPA Catchment Unit, the Regional Assembly and, as relevant, Irish Water to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance.</li> <li>Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the WWTP to meet Emission Limit Values, the Council will consider whether it is necessary to coordinate a response with the Regional Assembly, EPA and Irish Water to achieve the necessary capacity.</li> </ul>
	<ul style="list-style-type: none"> <li>Number of incompatible developments permitted within flood risk areas</li> </ul>	<ul style="list-style-type: none"> <li>Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk</li> </ul>	<ul style="list-style-type: none"> <li>Internal monitoring of likely significant environmental effects of grants of permission</li> </ul>	<ul style="list-style-type: none"> <li>Where planning applications are being permitted on flood zones, the Council will ensure that such grants are in compliance with the Flood Risk Management Guidelines and include appropriate flood risk mitigation and management measures.</li> </ul>

SEA Environmental Report Appendix IV: Non-Technical Summary

Environmental Component	Indicators	Targets	Sources	Remedial Action
<b>Material Assets</b>	<ul style="list-style-type: none"> <li>Programmed delivery of Irish Water infrastructure for all key growth towns in line with Irish Water Investment Plan and prioritisation programme to ensure sustainable growth can be accommodated</li> <li>Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Plan</li> </ul>	<ul style="list-style-type: none"> <li>All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan</li> <li>Where septic tanks are proposed, for planning permission to be only granted when applications demonstrate that the outfall from the septic tank will not – in- combination with other septic tanks– contribute towards any surface or ground water body not meeting the objective of good status under the Water Framework Directive</li> <li>Facilitate, as appropriate, Irish Water in developing water and wastewater infrastructure</li> <li>See also targets relating to greenfield and brownfield development of land under Soil and broadband under Population and Human Health</li> </ul>	<ul style="list-style-type: none"> <li>Internal monitoring of likely significant environmental effects of grants of permission Consultations with the Irish Water</li> <li>DHLGH in conjunction with Local Authorities</li> </ul>	<ul style="list-style-type: none"> <li>Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the WWTP to meet Emission Limit Values, the Council will consider whether it is necessary to coordinate a response with the Regional Assembly, EPA and Irish Water to achieve the necessary capacity.</li> </ul>
	<ul style="list-style-type: none"> <li>Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures</li> </ul>	<ul style="list-style-type: none"> <li>Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures</li> </ul>	<ul style="list-style-type: none"> <li>CSO data</li> <li>Monitoring of Roscommon County Council's Climate Change Adaptation Strategy 2019-2024</li> </ul>	<ul style="list-style-type: none"> <li>Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, the DHLGH, DECC and NTA to develop a tailored response.</li> </ul>
<b>Air</b>	<ul style="list-style-type: none"> <li>Proportion of journeys made by private fossil fuel-based car compared to 2016 National Travel Survey levels of 74%</li> <li>NO<sub>x</sub>, SO<sub>x</sub>, PM10 and PM2.5 as part of Ambient Air Quality Monitoring</li> </ul>	<ul style="list-style-type: none"> <li>Decrease in proportion of journeys made by private fossil fuel-based car compared to 2016 National Travel Survey levels</li> <li>Improvement in Air Quality trends, particularly in relation to transport related emissions of NO<sub>x</sub> and particulate matter</li> </ul>	<ul style="list-style-type: none"> <li>CSO data</li> <li>Data from the National Travel Survey</li> <li>EPA Air Quality Monitoring</li> <li>Consultations with Department of Transport and Department of Environment, Climate and Communications</li> </ul>	<ul style="list-style-type: none"> <li>Where proportion of population shows increase in private car use above CSO 2016 figures, Council will coordinate with the Regional Assembly, DHLGH, DECC and NTA to develop a tailored response. See also entry under Population and human health above</li> </ul>
<b>Climatic Factors</b>	<ul style="list-style-type: none"> <li>Implementation of Plan measures relating to climate reduction targets</li> </ul>	<ul style="list-style-type: none"> <li>For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to climate reduction targets</li> </ul>	<ul style="list-style-type: none"> <li>Internal monitoring of likely significant environmental effects of grants of permission</li> </ul>	<ul style="list-style-type: none"> <li>Review internal systems</li> </ul>
	<ul style="list-style-type: none"> <li>A competitive, low-carbon, climate-resilient and environmentally sustainable economy</li> </ul>	<ul style="list-style-type: none"> <li>Contribute towards transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring of Roscommon County Council's Climate Change Adaptation Strategy 2019-2024</li> <li>EPA Annual National Greenhouse Gas Emissions Inventory reporting</li> <li>Climate Action Regional Office</li> <li>Consultations with DECC</li> </ul>	<ul style="list-style-type: none"> <li>Where targets are not achieved, the Council will liaise with the Regional Assembly and the Eastern and Midlands Climate Action Regional Office to establish reasons and develop solutions.</li> </ul>
	<ul style="list-style-type: none"> <li>Share of renewable energy in transport</li> </ul>	<ul style="list-style-type: none"> <li>Contribute towards the target of the Renewable Energy Directive (2009/28/EC), for all Member States to reach a 10% share of renewable energy in transport by facilitating the development of electricity charging and transmission infrastructure, in compliance with the provisions of the Plan</li> </ul>		
	<ul style="list-style-type: none"> <li>Carbon dioxide (CO<sub>2</sub>) emissions across the electricity generation, built environment and transport sectors</li> </ul>	<ul style="list-style-type: none"> <li>Contribute towards the target of aggregate reduction in carbon dioxide (CO<sub>2</sub>) emissions of at least 80% (compared to 1990 levels) by 2050 across the electricity generation, built environment and transport sectors</li> </ul>		

SEA Environmental Report Appendix IV: Non-Technical Summary

Environmental Component	Indicators	Targets	Sources	Remedial Action
	<ul style="list-style-type: none"> <li>Energy consumption, the uptake of renewable options and solid fuels for residential heating</li> </ul>	<ul style="list-style-type: none"> <li>To promote reduced energy consumption and support the uptake of renewable options and a move away from solid fuels for residential heating</li> </ul>		
	<ul style="list-style-type: none"> <li>Proportion of journeys made by private fossil fuel-based car compared to 2016 levels</li> </ul>	<ul style="list-style-type: none"> <li>Decrease in the proportion of journeys made by residents of the County using private fossil fuel-based car compared to 2016 levels</li> </ul>	<ul style="list-style-type: none"> <li>CSO data</li> <li>Monitoring of Roscommon County Council's Climate Change Adaptation Strategy 2019-2024</li> </ul>	<ul style="list-style-type: none"> <li>Where trends toward carbon reduction are not recorded, the Council will liaise with the Regional Assembly and the Eastern and Midlands Climate Action Regional Office to establish reasons and develop solutions.</li> </ul>
	<ul style="list-style-type: none"> <li>Proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures</li> </ul>	<ul style="list-style-type: none"> <li>Increase in the proportion of people reporting regular cycling / walking to school and work above 2016 CSO figures</li> </ul>	<ul style="list-style-type: none"> <li>CSO data</li> <li>Monitoring of Roscommon County Council's Climate Change Adaptation Strategy 2019-2024</li> </ul>	<ul style="list-style-type: none"> <li>Where proportion of population shows increase in private car use above CSO 2016 figures, the Council will coordinate with the Regional Assembly, the DHLGH, DECC and NTA to develop a tailored response.</li> </ul>
<b>Cultural Heritage</b>	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>Protect entries to the Record of Monuments and Places, and the context of these entries within the surrounding landscape where relevant, from adverse effects resulting from development which is granted permission under the Plan</li> </ul>	<ul style="list-style-type: none"> <li>Internal monitoring of likely significant environmental effects of grants of permission</li> </ul>	<ul style="list-style-type: none"> <li>Where monitoring reveals visitor pressure is causing negative effects on key tourist features along these routes, the Council will work with Regional Assembly, Fáilte Ireland and other stakeholders to address the pressures through additional mitigation tailored to the plans.</li> </ul>
	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>Protect entries to the Record of Protected Structures and Architectural Conservation Areas and their context from significant adverse effects arising from new development granted permission under the Plan</li> </ul>	<ul style="list-style-type: none"> <li>Consultation with DHLGH</li> </ul>	
<b>Landscape</b>	<ul style="list-style-type: none"> <li>Number of developments permitted that result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan</li> </ul>	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>Internal monitoring of likely significant environmental effects of grants of permission</li> </ul>	<ul style="list-style-type: none"> <li>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</li> </ul>