



**Comhairle Contae
Dhún na nGall**
Donegal County Council

STRATEGIC ENVIRONMENTAL ASSESSMENT Environmental Report

For the County Donegal Climate Action Plan 2024 -2029

Prepared for Donegal County Council under SI 435 of 2004 as amended

November 2023

CONTENTS

1	Introduction.....	1
1.1	Background to County Donegal CAP.....	1
1.2	Scale, Nature and Location of the County Donegal CAP	2
1.3	Structure and Preparation of this Environmental Report	3
2	Methodology	5
2.1	Stages in the SEA process.....	5
3	Relationships to Plans	17
3.1	International and National	17
3.2	Regional and Local	18
3.3	Key implications and principles arising from the Plan, Policy and Programme Review.	18
4	Summary of current Environmental Baseline in County Donegal.....	23
4.1	Introduction	23
4.2	Green and Blue Infrastructure and Ecosystem Services	23
4.3	Biodiversity, flora and fauna	26
4.4	Population and Human Health	30
4.5	Geology and Soils.....	34
4.6	Water Resources including flood risk.....	37
4.7	Air Quality:	42
4.8	Material Assets:.....	44
4.9	Cultural Heritage:	46
4.10	Landscape and Seascape.....	49
4.11	Decarbonising Zone.	50
4.12	Evolution of the plan area in the absence of the Climate Action Plan.....	56
4.13	Environmental Sensitivity Mapping and inter-relationships	56
5	Strategic Environmental Objectives	58
5.1	Introduction	58
6	Consideration of Alternatives	60
6.1	Introduction	60
6.2	Key environmental challenges at county scale.....	60
6.3	Preferred alternative and reason for selection	68
7	Assessment of likely significant effects	69
7.1	Summary of significant effects	70
7.2	Cumulative effects.....	76

8	Mitigation Measures.....	86
8.1	Introduction	86
8.2	Environmental Protection Measures in the Donegal CDP 2018-2024 and Draft CDP 2024 -2030.....	87
8.3	SEA and AA Mitigation Measures to Donegal Climate Action Plan (reworded/new text in blue font)	91
9	Monitoring.....	93
9.1	Introduction	93

Annex A: SEA assessment matrix

This report has been prepared by Minogue Environmental Consulting Ltd with all reasonable skill, care and diligence. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid. This report is prepared for Donegal County Council and we accept no responsibility to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.



County Donegal Climate Action Plan 2024 -2029

1 Introduction

This is the Environmental Report that has been prepared as part of the Strategic Environmental Assessment of the draft Donegal Climate Action Plan 2024-2029 (CAP). It sets out how the SEA has been undertaken and presents the findings of the assessment of the actions of the draft CAP together with its' reasonable alternatives.

Under *Directive 2001/42/EC - Assessment of Effects of Certain Plans and Programmes on the Environment*, certain plans and programmes require an environmental assessment. This is known as the Strategic Environmental Assessment (SEA) Directive. Article 1 of this Directive states that its objective is:

'to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development.'

This Environmental Report complies with the requirements of the Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (the SEA Directive) as implemented in Ireland through Statutory Instrument (SI) No.435 of 2004 European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (as amended).

These regulations are a statutory requirement for plans or programmes which could have significant environmental effects, and the assessment process aims to identify where there are potential effects and how any negative effects might be mitigated.

1.1 Background to County Donegal CAP

Through the Climate Action and Low Carbon Development (Amendment) Act 2021, Ireland is now on a legally binding path to net-Zero emissions no later than 2050, and to a 51% reduction in emissions by the end of this decade. The Act provides the framework for Ireland to meet its international and EU climate commitments and to become a leader in addressing climate change. As required by the 2021 Act, Donegal County Council is preparing their first Local Authority Climate Action Plan (LA-CAP) which must be adopted by the Elected Members before 23rd February 2024. This will continue the work undertaken over the first Climate Change Action Plan 2019-2024 which was non statutory.

1.1.1 Local Authority Climate Action Plans

Local Authorities will have a particularly important role in the delivery of both climate mitigation and adaptation. This is reflected in the provisions of the Climate Action and Low Carbon Development (Amendment) Act, 2021, which requires each Local Authority to prepare a CAP specifying the mitigation and the adaptation measures to be adopted by the Local Authority.

Local authorities are key drivers in advancing climate policy at the local level and the Donegal CAP aims to strengthen the alignment between national climate policy and local circumstances with the prioritisation and acceleration of evidence-based measures, to assist in the delivery of the climate neutrality objective for Donegal County Council.

Donegal County Council will use its CAP in planning how it will reduce greenhouse gas emissions from across its own assets and infrastructure, whilst also taking on a broader role to influence, facilitate and co-ordinate the climate actions of communities and other stakeholders and what it will do to advocate for climate action in Donegal. In order to ensure that the CAP is centred around a strong understanding of the role and remit of Donegal County Council on climate action, the Plan is being developed through the following framework.

- Full accountable: Targeted actions for areas where Donegal County Council has full accountability for climate action within their own operations.
- Influence: Actions for where Donegal County Council can influence businesses, communities, and individuals in the delivery of local climate action through the functions and services they provide.
- Coordination: Actions for where Donegal County Council can coordinate and facilitate local and community action bringing together stakeholders in partnership to achieve climate action related projects.
- Advocate: Actions aligned to Donegal County Council role as advocate on climate action through raising awareness, communicating, informing, and engaging in open dialogue on the topic.

While the Climate Action Plan will be ambitious to reflect the leadership role of Donegal County Council on climate action, the Plan will not include actions whereby their implementation and achievement fall outside our role, remit, and governance.

1.2 Scale, Nature and Location of the County Donegal CAP

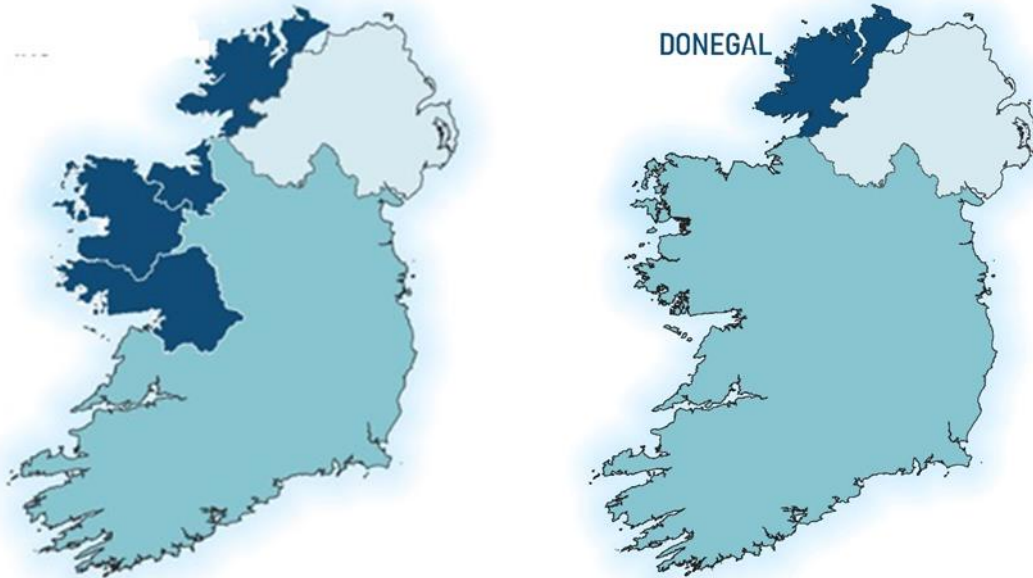
The plan will cover all of the functional area of County Donegal. **Figure 1.1** shows the location of County Donegal, and the Atlantic Seaboard North Climate Action Regional office extent (CARO).

The Donegal CAP provides Strategic Themes, Goals and Objectives underpinned by actions, addressing:

- Governance and Leadership
- Built environment
- Transport
- Natural Environment
- Community's resilience and
- Sustainability and resource management.

The Plan will have to comply, as relevant, with various legislation, policies, plans and programmes (including requirements for lower-tier Appropriate Assessment, Environmental Impact Assessment, Ecological Impact Assessment and requirements as appropriate) that form the statutory decision-making and consent granting. Actions arising from the plan will demonstrate compliance with the environmental protection measures in the current Donegal County Development Plan 2018 -2024 and the CDP that will supersede this for the period 2024 -2029, and SEA Environmental Reports and Natura Impact Reports that accompanies same.

FIGURE 1-1 COUNTY DONEGAL AND THE CARO ATLANTIC SEABOARD NORTH



1.3 Structure and Preparation of this Environmental Report

Regulations contained in Schedule 2A of Statutory Instrument (S.I.) 436 of 2004 (as amended) details the information to be contained in an Environmental Report. The following **Table 1.1** lists the information required and details where this information is contained in this Environmental Report.

Table 1-1 Information Required To Be Contained In An SEA Environmental Report.

Schedule 2B of Statutory Instrument 435 of 2004	Addressed in this SEA ER
(a) an outline of the contents and main objectives of the plan and relationship with other relevant plans	Chapter One Introduction and Chapter Two Methodology outlines contents and main objectives Chapter Three details the relationship with other relevant plans
(b) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan	Chapter Four Baseline Environment provides this information
(c) the environmental characteristics of areas likely to be significantly affected	Chapter Four Baseline Environment provides this information
(d) any Issues and Threats problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to the Birds Directive or Habitats Directive	Chapter Four Baseline Environment provides this information.
(e) the environmental protection objectives, established at international, European Union or national level, which are relevant to the plan and the way those objectives and any environmental considerations have been taken into account during its preparation	Chapter Five: SEA Objectives provides this information
(f) the likely significant effects on the environment, including on issues such as biodiversity, population, human health,	Chapter Seven, Significant Effects on the Environment provides this information

Schedule 2B of Statutory Instrument 435 of 2004	Addressed in this SEA ER
fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors	
(g) the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan	Chapter Eight, Mitigation Measures provides this information
(h) an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information	Chapter Six, Alternatives Considered provides this information and difficulties encountered are listed at the end of Chapter Two, Baseline Environment.
(i) a description of the measures envisaged concerning monitoring of the significant environmental effects of implementation of the plan	Chapter Nine, Monitoring provides this information
(j) a non-technical summary of the information provided under the above headings	This is provided as a separate document to this Environmental Report but is also available

2 Methodology

This chapter presents the SEA methodology in detail and outlines the steps required for SEA. The methodology used to carry out the SEA of the plan reflects the requirements of the SEA regulations and available guidance on undertaking SEA in Ireland, including:

- SEA Methodologies for Plans and Programmes in Ireland – Synthesis Report Environmental Protection Agency (EPA), 2003;
- Implementation of SEA Directive (2001/42/EC) Assessment of the Effects of Certain Plans and Programmes on the Environment – Guidelines for Regional Authorities and Planning Authorities - published by the Department of the Environment, Heritage and Local Government, 2004;
- Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI 436 and SI 435 of 2004);
- Planning and Development (Strategic Environmental Assessment) Regulations 2011 (S.I. No. 201 of 2011);
- Planning and Development (Environmental Assessment of Certain Plans and Programmes) (S.I. No 200 of 2011);
- SEA Process Checklist Consultation Draft 2008, EPA 2008;
- Circular Letter PSSP 6/2011 Further Transposition of EU Directive 2001/42/EC on Strategic Environmental Assessment;
- Guidance on integrating climate change and biodiversity into Strategic Environmental Assessment European Union 2013;
- SEA Resource Manual for Local and Regional Authorities, Draft Version, 2013;
- Integrating Climate Change into Strategic Environmental Assessment in Ireland – A Guidance Note, EPA, 2015;
- Developing and assessing alternatives in Strategic Environmental Assessment, EPA, 2015;
- SEA of Local Authority Land Use Plans - EPA Recommendations and Resources (2020).
- Good practice guidance on Cumulative Effects Assessment in SEA, EPA, 2020
- Guidance on Strategic Environmental Assessment (SEA) Statements and Monitoring, EPA, 2020.

2.1 Stages in the SEA process

The steps involved in SEA are as follows:

- Screening (determining whether or not SEA is required).
- Scoping (determining the range of environmental issues to be covered by the SEA).
- The preparation of an Environmental Report (**current stage**)
- The carrying out of consultations.
- The integration of environmental considerations into the Plan or Programme.
- The publication of information on the decision (SEA Statement).

2.1.1 Scoping

The purpose of the SEA Scoping report is to identify the scope of the SEA and ensure that relevant data and environmental topics are included in the SEA. The Scoping report was issued to the statutory environmental authorities from 2nd October to 27th October 2023.

Table 2.1 below summarises the main issues raised by consultees and the SEA response to same.

TABLE 2-1 SEA SCOPING SUBMISSIONS RECEIVED

Consultee	Summary of comments	SEA Response
<p>EPA</p>	<p>The scale of the challenge facing Ireland to address climate change is significant, as highlighted in our State of Environment Report ‘Ireland’s Environment - An Integrated Assessment 2020’ 1 (EPA, 2020). We urgently need to accelerate action to reduce our greenhouse gas emissions and implement adaptation measures to increase our resilience to climate change.</p> <p>We welcome that the Plan will set out a framework of climate actions to be carried out by Donegal County Council, in collaboration with other key stakeholders, over the five-year period from 2024 to 2029. This includes establishing climate action related strategic goals, high level objectives to support the delivery of these goals and also actions that are time-bound, measurable and focused on local level climate action.</p> <p>We acknowledge that draft strategic goals look to address energy, the built environment and related infrastructure, transportation, natural environment and green infrastructure, Economic development and green enterprise/business, community resilience and just transition, and Governance related aspects. We also acknowledge that the Plan will take account of both climate mitigation and climate adaptation actions. We recognise the importance of ensuring that the National Transition Objective is underpinned by a clean, healthy and well-protected environment.</p> <p>It is important, in developing and implementing the Plan, that it is set within the context of a wider and more integrated approach to environmental protection.</p>	<p>Noted.</p> <p>Noted, and agreed.</p>
	<p>We note that the Plan will progress the climate adaptation and mitigation required at a local level and will support - a clear pathway to implement national climate policy locally, and prioritise action on evidence-focused climate measures that need to be taken.</p> <p>The SEA should play a key role in ensuring that this is achieved and should inform decision-making around the assessment and selection of actions and measures. The SEA should also assist in identifying ways to maximise the potential co-benefits of climate related measures for air quality, human health, biodiversity, water quality and other interrelated areas (i.e. win-win solutions).</p> <p>A key role of SEA is in assessing and informing the selection and refinement of actions and measures that maximise the co-benefits of climate actions for the wider environment and society. This should be highlighted in the SEA Report and the Plan</p>	<p>Noted, the SEA and AA has influenced the CAP and provided additional recommended actions as well as amendment of existing actions to enhance overall environmental performance of the CAP. These include co benefits and cross cutting mitigation measures.</p>

Consultee	Summary of comments	SEA Response
	<p>You should ensure that the Plan aligns with national commitments on climate change mitigation and adaptation, (such as the latest National Climate Action Plan) as well as any relevant sectoral or regional adaptation plans and adjacent local authority climate action plans.</p> <p>The Plan should include a commitment to consider any relevant updated actions, measures or recommendations that may arise in updates to the National Climate Action Plan over the lifetime of the Plan.</p> <p>The Plan and SEA should take into account the recent Climate Council Annual Review report, which is available at: https://www.climatecouncil.ie/councilpublications/annualreviewandreport/CCAC-AR2023-FINAL%20Compressed%20web.pdf</p> <p>Additionally, the relevant objectives and policy commitments of the National Planning Framework and the Northern and Western Regional Spatial and Economic Strategy and the Donegal County Development Plan should be aligned with and considered, as appropriate.</p>	<p>Relevant sectoral climate action and adaptation plans are considered within Chapter 3 and 4 of this SEA ER.</p> <p>Noted, agreed.</p> <p>Relevant objectives from national, regional and county plans are considered and aligned with as relevant.</p>
	<p>Greenhouse Gas Emissions</p> <p>In preparing the Plan and SEA, the direct and indirect impacts of the Plan on greenhouse gas emissions and removals should be assessed. The Agency's most recent projections reports Ireland's Greenhouse Gas Emissions Projections 2022-2040 (EPA, 2023) and Ireland's Provisional Greenhouse Gas Emissions 1990-2022 (EPA, 2023) should be taken into account. The Climate Action Plan identifies actions to decarbonise electricity generation, the built environment and transport and to move towards carbon neutrality for agriculture, forest and land use sectors. The Plan should also integrate and align with the relevant actions in the Climate Action Plan, as appropriate</p>	<p>Actions in the plan address transport, built environment, landuse, as well as agriculture and forestry. Some additional actions are recommended in this regard through the SEA and AA assessment processes.</p>
	<p>Climate Adaptation</p> <p>In preparing the Plan and SEA, you should consider how the impacts of climate change, individually and in combination, are likely to influence the implementation of the Plan. The Plan should look to improve resilience of existing and planned critical infrastructure, systems and procedures to the effects and variability of climate change. Vulnerable populations should be considered in the context of just transition/adaptation. The cascading effects of proposed adaptation measures should also be considered. Recent extreme weather events could be useful to assist in identifying areas where for further work is needed to improve resilience, e.g. the resilience of critical water service infrastructure to flooding and drought</p>	<p>The cumulative effects of adaptation measures is considered in Chapter 7 of this SEA.</p>
	<p>The Plan should include appropriate adaptation measures that can be implemented either directly or through relevant land use plans and/or specific plans e.g. Flood Risk Management Plans, River</p>	<p>Will be considered and integrated as appropriate.</p>

Consultee	Summary of comments	SEA Response
	<p>Basin Management Plans etc. The Plan will also help inform local authority land use and transport planning. Additional aspects to consider may include changes in native species and habitats and the spread of invasive species, pests and pathogens. In this regard, the Plant Atlas 2020 project looking at Ireland's changing flora might be useful to consider. A summary of this results can be found at: https://bsbi.org/wpcontent/uploads/dlm_uploads/2023/02/BSBI-Plant-Atlas-2020-summary-reportIreland-WEB.pdf</p>	
	<p>Water Quality The Plan should take into account the most recent Water Framework Directive water quality status and risk information, available on the EDEN WFD app. Relevant future projections of river flow are available in either EPA research reports (such as HydroPredict, pending), or academic papers related to these projects.</p>	Noted, will be considered.
	<p>Air quality The Plan should take into account the Draft National Clean Air Strategy (DECC). The Air Quality in Ireland 2021 Report (EPA, 2022) sets out the most recent status in each of the four air quality zones in Ireland and may be useful to consider. Data on levels of atmospheric pollutants from the EPA's national ambient air quality monitoring network should also be integrated as appropriate. The pollutants of most concern are traffic-related, including Particulate Matter and Nitrogen Dioxide.</p>	Noted, will be considered given localised transport emissions and impacts on biodiversity, water and human health.
	<p>Recent EPA Climate change related publications Some recent climate change publications that may be useful to consider in preparing the SEA and the Plan are shown below: - Ireland's Greenhouse Gas Emissions Projections 2022-2040 (EPA, 2023) - Ireland's Final Greenhouse Gas Emissions 1990-2021 (EPA, 2023) - Ireland's Provisional Greenhouse Gas Emissions 1990-2022 (EPA, 2023) - Climate Change's Four Irelands (EPA, 2022) - Ireland's Air Pollutant Emissions 2021 (1990-2030) (EPA, 2023)</p> <p>Additionally, further reports/publications are available at: can be consulted at https://www.epa.ie/publications/monitoring--assessment/climate-change/.</p> <p>Research report 429: Building Coastal and Marine Resilience in Ireland (EPA, 2023) may be useful to consider. It discusses the need for identification and increased awareness of climate change risks to Ireland's coastal communities. It also highlights the importance of building national resilience across socio-ecological and economic systems. Other climate- related environmental research reports are available at: https://www.epa.ie/publications/research/climate-change</p>	Noted, will be reviewed and included as appropriate.
	<p>EPA State of the Environment Report Our State of Environment Report, Ireland's Environment - An Integrated Assessment 2020 (SOER2020) identifies thirteen high level 'Key Messages for Ireland'.</p>	Noted

Consultee	Summary of comments	SEA Response
	<p>Delivering Ireland’s long-term sustainable development and environmental objectives will involve many different stakeholders to address these key actions. The report recognises the need for full implementation of existing environmental legislation and review of governance/coordination on environmental protection across public bodies. Specifically, information provided in the following chapters should be considered, as appropriate and relevant. - Chapter 2 (Climate) highlights the clear need for systemic change in Ireland to ensure the country will become the climate neutral and climate resilient society it aspires to be. More urgency is needed to deliver actions on climate mitigation and adaptation and to ensure that Ireland meets its international obligations to reduce greenhouse gas (GHG) emissions. Further measures are required to meet national and EU ambitions to keep the global temperature increase to 1.5°C.</p> <p>These measures will contribute to Ireland achieving climate neutrality by 2050. - Chapter 11 (Transport). The transport sector has a significant impact on the environment, including being responsible for 20 per cent of Ireland’s greenhouse gas emissions. A sustainable mobility transformation is required, with the next decade crucial, whereby necessary journeys are made by sustainable modes such as walking, cycling and public transport, followed by using electric vehicles where unavoidable. For this transformation to happen the measures relating to transport in the Climate Action Plan, and other necessary measures, must be fast tracked.</p> <p>Long-term, integrated spatial and transport planning can achieve compact development and move trips to other modes of transport, including cycling and should be supported in the Plan. Shifting to these modes is an essential part of a sustainable and climate-neutral transition for the transport sector. - Chapter 12 (Energy). Almost 90% of our total energy use is provided by combustion of mostly imported fossil fuels, which is unsustainable, and we need to begin fast tracking measures within the Climate Action Plan and other necessary solutions. This will involve strategic planning to transform this situation by 2050. Transitioning to using clean energy is essential for the protection of human health, our climate and the wider environment and will help support sustainable development of our society and economy. - Other chapters to consider include Chapter 6 (Nature) and Chapter 13 (Environment and Agriculture).</p>	
	<p>Population and Human Health: Air quality and water quality considerations should also be included in the list of aspects to be considered in relation to population and human health. Issues around equity and how vulnerable groups can be best assisted in dealing with and adapting to climate change should be considered, as relevant to the Plan.</p>	<p>These topics are considered in Chapter 4, 7 and mitigation measures recommended as appropriate .</p>

Consultee	Summary of comments	SEA Response
	<p>Biodiversity: The Plan should also seek to protect existing green and blue infrastructure and key ecological corridors from inappropriate development.</p> <p>Water Resources: With regards flooding, the Plan should consider the need for appropriate zoning and development of lands to avoid incompatible land uses in areas at risk of significant flooding.</p> <p>Soils / Geology: The protection of high nature value farming areas, and key agricultural lands should be considered. Where natural resources are required to support development, these should be carried out as efficiently as possible.</p> <p>Landscape: The key issues for the SEA to consider could also include the potential 'visual impact' of any proposed measures with potential to impact on sensitive landscape areas.</p> <p>Material Assets Transportation: The Plan should align with the transport commitments in the National Planning Framework, Northern and Western Regional Spatial and Economic Strategy, where appropriate and relevant.</p> <p>Water Supply: Uisce Eireann's National Water Resources Adaptation Framework (and any relevant Regional Water Resource Plans) takes account of potential climate change implications for drinking water supply/service provision and may be also useful to consider.</p> <p>Cross-cutting issues Climate change will affect all aspects of our economy and society, with many issues impacting on the operations of individual local authorities. In implementing the Plan and in responding effectively to climate change, coordination, and collaboration among stakeholders on cross-cutting issues is needed</p>	
<p>Strategic Environmental Assessment Team DAERA - NIEA</p>	<p>DAERA would like the SEA Environmental Report to contain a clear statement indicating the opinion about whether or not the implementation of the of the strategy is likely to have a significant effect on the environment of Northern Ireland, in combination with any identified measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment</p>	<p>Noted, a statement to this effect is provided in Chapter 7.</p>
	<p>Transboundary issues arising from this plan should be considered as part of the forthcoming SEA including the potential disturbance to/impact on NI/RoI migratory/mobile species. Cross border designated sites, European sites in Northern Ireland adjacent to or with pathways to/from the Republic of Ireland, priority habitats, river basins, and other landscape types also require special attention as ecological functionality and 'views' of landscape cross political boundaries. The SEA should consider all potential impacts including those which may impact Northern Ireland both directly and indirectly. Consideration should be given to all potential impacts on NI habitats (particularly designated sites, priority habitats and those important for migratory species and NI populations) including habitat quality and conservation status</p>	<p>Noted, will be considered, described and assessed as appropriate.</p>
	<p>We welcome that a parallel Appropriate Assessment in relation to the CAP is being carried out. This should also consider potential impacts on NI designated sites as appropriate. Please note following</p>	<p>Noted.</p>

Consultee	Summary of comments	SEA Response
	<p>the decision of the United Kingdom to leave the European Union, the collective term of “Natura 2000” sites the network of European protected sites are now known as “National Site Network” sites within the United Kingdom, including Northern Ireland</p>	
	<p>It may be worth including in your considerations the following: • The Wildlife (NI) Order 1985 (as amended) • Wildlife and Natural Environment Act (NI) 2011 • The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended) • The Environment (NI) Order 2002 • The Planning (Environmental Impact Assessment) Regulations (Northern Ireland) 2017 • The Strategic Planning Policy Statement (SPPS) for Northern Ireland • Planning Policy Statements (PPS – in particular PPS2). It should be noted that the PPS’s will be superseded by Local Development Plans when they are adopted. • Biodiversity Strategy for NI to 2020 https://www.daerani.gov.uk/publications/biodiversity-strategy-northern-ireland-2020-0 • Draft Environment Strategy https://www.daera-ni.gov.uk/consultations/esnipublic-discussion-document • The Draft NI peatland policy: https://www.daera-ni.gov.uk/consultations/nipeatland-strategy-consultation • The Draft Green Growth Strategy Consultation on the draft Green Growth Strategy for Northern Ireland Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk) • Northern Ireland Energy Strategy 2050 Northern Ireland Energy Strategy 2050 Department for the Economy (economy-ni.gov.uk)</p>	<p>Noted, these will be considered and included as appropriate</p>
	<p>A number of useful information sources that highlight the current state of the environment in Northern Ireland at a regional level and which could be referenced are: • Northern Ireland State of the Environment Reports: https://www.daerani.gov.uk/publications/state-environment-report-2013 • Northern Ireland Environmental Statistics Reports: https://www.daerani.gov.uk/articles/northern-ireland-environmental-statistics-report Other relevant web-links are; • Designated Scientific Sites: www.daera-ni.gov.uk/landing-pages/protected-areas • Regional Landscape Character Map viewer: https://www.daerani.gov.uk/services/regional-landscape-character-areas-map-viewer DAERA have a map browser for NI protected sites and known priority habitat: www.daera-ni.gov.uk/services/natural-environment-map-viewer Our natural environment datasets are available at the link below: www.daera-ni.gov.uk/articles/download-digital-datasets Appropriate Assessments should refer to the status of habitats and species in the relevant reports available on the JNCC website as follows: UK Article 17 report for the Habitats Directive https://jncc.gov.uk/our-work/article-17-habitats-directive-report-2019/ and the UK Article 12 report for the Birds Directive https://jncc.gov.uk/ourwork/european-reporting/#birds-directive-reportin</p>	<p>Noted, these will be considered and included as appropriate</p>
	<p>AQUB suggest that consideration is given to the impact of ammonia emissions (as a key pollutant) to both the natural environment and human health. Ireland is now included in the Air Pollution Information System (APIS) which provides information on the impacts of air pollutants, such as NOx,</p>	<p>Noted, ammonia emissions are primarily from agricultural activities in</p>

Consultee	Summary of comments	SEA Response
	ammonia emissions and the associated N deposition on sensitive habitats and species. The map feature within APIS enables detailed information to be provided on the Critical Levels/Loads for each qualifying feature and background levels of these pollutants: APIS app	N.Ireland but may give rise to transboundary effects. Will be considered as appropriate
	<p>The SEA should consider all issues in relation to the aquatic environment during all aspects / phases in relation to the implementation of County Donegal Climate Change Action Plan 2024 -2029. Impacts that should be considered include, (but may not limited to), those relating to water quality, water quantity, hydromorphology, and in addition any impact on NI/RoI migratory/mobile species such as salmon.</p> <p>Assessment should consider all potential impacts both direct and indirect. It is important that cross border river basins are given special attention as ecological functionality cross jurisdictional boundaries. After consideration, the SEA should clearly state whether, or not, any potential impacts to the aquatic environment in Northern Ireland have been identified and the nature of those impacts.</p>	Will be considered as appropriate.
	River Basin Management Plans are the key tools for implementing the Water Framework Directive and to achieving its objectives. If the potential for transboundary impacts to Northern Ireland are identified, then the NI River Basin Management Plans must be considered during the SEA process.	Noted, will be considered and included as appropriate
	The Landscape Team welcomes that Landscape and Visual amenity has been considered within the draft Objectives. The Donegal Climate Action Plan has potential to impact on the Northern Ireland Landscape located in border areas and therefore the Northern Ireland landscape should be considered within the SEA Environmental Report.	Noted, will be considered and included as appropriate
Historic Environment Division	In relation to Cultural Heritage, HED suggest that the issue of potential for impacts on the setting of heritage assets through construction of new infrastructure be factored in. The potential for direct impacts on historic buildings e.g from retrofitting works or micro-renewable technologies, should also be considered.	Noted, will be considered and included as appropriate
	We would suggest that the SEA objective in relation to cultural heritage be amended to consider conservation and enhancement of cultural heritage. – i.e. “protect conserve and enhance.....” , given that conservation is about the management of change affecting heritage assets in a way that helps to sustain and enhance their significance. Given the intertwined nature of the historic environment with landscape and the natural environment, HED advise that consideration of the potential for transboundary impacts in the Cultural Heritage topic area, particularly with regard to potential impacts on setting of assets would be relevant. A large number of heritage assets predate the border itself and correlate to other assets in either jurisdiction, with interweaving views and settings, and some assets such as ancient earthworks, routeways and canals traverse it.	Noted, will be considered and included as appropriate. SEO will be amended to reflect recommendation.

Consultee	Summary of comments	SEA Response
Dept of Transport	<p>Below are examples of ways in which the Local Authority Climate Action Plans can support national climate policy in the context of the transport sector:</p> <ul style="list-style-type: none"> • Local Authorities can lead by example in their organisations by decarbonising their own vehicle fleets. • Local Authorities also have an important role in developing local area networks for EV charging infrastructure to meet the needs of their residents who cannot charge their vehicles at home, and, through the co-location of shared mobility services, to meet the needs of residents who don't own vehicles. • Local Authorities have a key role in delivery of active travel programmes by expanding walking and cycling facilities in their areas, including shared mobility services, and enhancing the public realm to increase safety and connectivity for pedestrians and cyclists by retrofitting existing infrastructure and providing new infrastructure. • Local Authorities can facilitate the integration of safe and convenient alternatives to the private car into the design of local communities in line with Transport Orientated Development principles and by prioritising walking and cycling accessibility to both existing and proposed development 	The CAP has been developed by Donegal CC and actions included as appropriate
	<p>The key performance indicators and targets outlined in the CAP23 Transport chapter are intended to illustrate the level of change required by 2030, including:</p> <ul style="list-style-type: none"> • a reduction of fossil fuel use in transport by 50% • a reduction in total kilometres driven of 20% • a reduced modal share of daily car journeys from 71% to 53% • a 50% increase in daily active travel journeys; a 130% increase in daily public transport journeys; and a 25% reduction in daily car journeys • a 30% shift of all escort to education car journeys to sustainable modes • an EV share of total passenger car fleet at 30%, with 100% share of new registrations <p>In addition, Local Authority climate action plans also should recognise the continued need to identify additional measures to deliver the level of ambition required. This includes, amongst others, the identification and implementation of further road space reallocation opportunities, pedestrian and cycling enhancement plans as well as various demand management measures. In this context, there are several important policies regarding transport climate action (both mitigation and adaptation) of relevance to the development of Local Authority climate action plans, detailed below. These policies, as well as the CAP23 metrics for transport, should be reflected in Local Authority climate action plans as appropriate</p>	As above.
	Recommendations made in relation to the CAP under the following themes with background information also provided:	Noted the datasets have been considered through

Consultee	Summary of comments	SEA Response
	<p>Public Engagement & Project Acceptance Communications Smart and Sustainable Mobility Workshops / SMP “Accelerator” Workshop programme Demand Management, Parking Policy, Air Quality and Sustainable Mobility Active Travel Infrastructure Road-space Reallocation, DMURS, Accessibility and Public Realm Integrated Land Use and Transport Planning Climate Adaptation EV Charging Infrastructure</p>	<p>the SEA process and applied as appropriate.</p>
<p>Geological Survey of Ireland</p>	<p>With reference to your email received on the 09 October 2023, concerning the Donegal County Council Climate Action Plan 2024-2029, Geological Survey Ireland would encourage use of and reference to our datasets. This data can add to the content and robustness of the SEA process. With this in mind please find attached a list of our publicly available datasets that may be useful to the environmental assessment and planning process. We recommend that you review this list and refer to any datasets you consider relevant to your assessment. The remainder of this letter and following sections provide more detail on some of these data.</p> <p>Recommended datasets include: Geoheritage, Groundwater, Geotechnical, Geohazards, Geothermal energy, Natural resources plus research projects.</p>	<p>Noted the datasets have been considered through the SEA process and applied as appropriate.</p>

2.1.2 Baseline data

The baseline data assists in describing the current state of the environment, facilitating the identification, evaluation and subsequent monitoring of the effects of the plan. It helps identify Issues and Threats in and around the plan area and in turn these can be quantified (for certain environmental parameters) or qualified. This highlights the environmental issues relevant to each SEA parameter and ensures that the plan implementation does not exacerbate such problems. Conversely this information can also be used to promote good environmental practices and opportunities for environmental enhancement, thereby improving environmental quality where possible.

Baseline data was gathered for all parameters.

Other data was gathered from the SEA ER of the North and Western Regional Economic and Spatial Strategy, NPWS, Birdwatch Ireland, Bat Conservation Ireland, National Biodiversity Centre, Irish Water, the EPA, Geological Survey of Ireland, Met Eireann and other sources as appropriate including reports recommended by the EPA in their Scoping Submission. Additional datasets were recommended by the Department of Agriculture, Environment and Rural Affairs of Northern Ireland. Footnotes throughout the document, particularly in Chapter Four present the reference and source.

The SEA has also used a Geographical Information System (GIS) in the following ways:

- To provide baseline information on a range of environmental parameters;
- To assist in assessment of alternatives;
- To help assess in-combination or cumulative impacts, and
- To provide maps to illustrate environmental parameters in the SEA Environmental Report.

2.1.3 Approach to assessment of significant environmental impacts

The principal component of the SEA involves a broad environmental assessment of the CAP. A methodology that uses the concept of expert judgement, public consultation, GIS and matrices, both to assess the environmental impact and to present the conclusions has been adopted in this SEA.

Key to assessing the above is setting a specific set of environmental objectives for each of the environmental topics. The objectives are provided in Chapter Five and include all aspects of the environment such as Cultural heritage, Population and Human health, and Biodiversity, Flora and Fauna.

The assessment described within this Environmental Report aims to highlight the potential conflicts, if they are present, between the actions identified in the CAP with the Strategic Environmental Objectives. Furthermore, the assessment examines the potential impact arising from the plan's implementation on sensitive environmental receptors.

The SEA Directive requires that information be focused upon **relevant aspects** of the environmental characteristics of the area likely to be **significantly affected** by the plan and the likely change, both positive and negative, where applicable.

Chapter Seven provides a discussion, where relevant, on the significance and type of the identified impact in accordance with current guidelines.

A key part of the SEA process has been the integration of the draft CAP, the SEA and Appropriate Assessment. The SEA legislation and guidelines highlight the importance of the integration between the preparation of the draft CAP and the SEA and AA processes. The iterative nature of the SEA process is such that the CAP is informed by environmental considerations throughout the

preparation of the plan . The Natura Impact Report is a separate document to the Environmental Report both of which accompany this draft CAP.

2.1.4 Mitigation

Section (g) of Schedule 2B of the SEA Regulations requires information on the mitigation measures that will be put in place to minimise/eliminate any significant adverse impacts due to the implementation of the plan. Chapter Eight of this SEA ER highlights the mitigation measures that will be put in place to counter identified significant adverse impacts due to the plans' implementation.

The CAP has been prepared having regard to the environmental protection objectives already within the draft plan and the iterative process between SEA and plan preparation. However, some unavoidable residual issues may remain and therefore mitigation measures are required. Chapter Nine details the mitigation measures necessary to prevent, reduce and, as fully as possible, offset any significant adverse impacts on the environment of implementing the CAP.

2.1.5 Monitoring

Article 10 of the SEA Directive sets out the requirement that monitoring is to be carried out of the significant environmental effects of the implementation of the plan in order to identify at an early stage any unforeseen adverse effects and to be able to undertake appropriate remedial action. Chapter Nine presents the monitoring requirements for the plan.

2.1.6 Habitats Directive Assessment

The Habitats Directive requires, *inter alia*, that plans and programmes undergo AA screening to establish the likely or potential effects arising from implementation of the plan. If the effects are deemed to be significant, potentially significant or uncertain then the plan must undergo Stage 2 AA. The preparation of the CAP, SEA and AA are taking place concurrently and the findings of the AA have informed both the SEA and the plan itself. The SEA has also applied the methodology for Integrated Biodiversity Assessment where relevant (EPA, 2015).

2.1.7 Data Gaps

Data gaps are present in terms of upto date human health and population information. More broadly, understanding the interactions between climate change, weather events, and impacts on water and biodiversity in particular are complex. Sectoral climate change adaptation plans have been referenced and used to fill these data gaps where possible.

The SEA ER has used an ecosystems services modelling approach to attempt to address these data gaps particularly in terms of understanding the role and inter-relationships between environmental parameters including water resources, biodiversity and human health.

3 Relationships to Plans

Under the SEA Directive, the relationship between the and other relevant plans and programmes must be taken into account. The preparation of the CAP must be considered within the context of a hierarchy of policies, plans and strategies which include international, national, regional and local level policy documents. These documents set the policy framework within which the CAP will operate. A list of the key relevant international, national, regional and county policies to be included in the review are provided below in Sections 3.2 to 3.4; Section 3.5. The list below is adapted from the EPA SEA of Local Authority Land-Use Plans - EPA Recommendations and Resources 2023 (Version 1.19)¹. **Table 3.1** identifies key principles that inform the SEA process arising from this review and how they relate to the EPA Themes in the State of Ireland’s Environment as well as the UN Sustainable Development Goals.

3.1 International and National

- United Nations Sustainable Development Goals
- National Planning Framework(under review currently) (DHLGH)
- National Biodiversity Plan (DHLGH)
- Climate Action Plan 2022 (DECC)
- Sectoral Climate Change Adaptation Strategies and Low Carbon Roadmaps
- National Mitigation Plan (DECC)
- National Adaptation Framework (DECC)
- National Policy Position on Climate Action and Low Carbon Development (DECC)
- EU Climate Adaptation Strategy 2021
- National Broadband Plan (DECC)
- National Renewable Electricity Policy Framework (in preparation DECC)
- Grid 25 Implementation Strategy (Eirgrid)
- Framework for Alternative Fuel Infrastructure in Transport (DoT)
- National Bioenergy Plan (DECC)
- National Landscape Strategy (DHLGH)
- Smarter Transport / Strategic Framework for Integrated Land Transport (DoT)
- National Greenway Strategy (DoT)
- State of the Environment Report 2020 (EPA)
- Waste Action Plan for a Circular Economy (DECC, 2020)
- Draft National Hazardous Waste Management Plan (EPA, in preparation)
- National River Basin Management Plan for Ireland (DHLGH)- Draft in preparation and under notification by European Commission to respond within 2 months (due November 2023)
- National Marine Planning Framework (DHLGH)
- Water Services Strategic Plan (Irish Water)
- Capital Investment Programme (Irish Water)
- Draft Water Resources Management Plan (Irish Water)
- National CFRAMS Programme (OPW)
- **Clean Air Strategy (DECC)²**
- **Northern Ireland: Valuing Nature—A Biodiversity Strategy for Northern Ireland to 2020**
- **The Draft Northern Ireland peatland policy**

¹ [Preliminary SEA Scoping Submission – Greater Dublin Area \(epa.ie\)](#)

² Inserted following SEA Scoping submission by EPA and Dept of Transport

- Northern Ireland Energy Strategy 2050 Northern Ireland Energy Strategy 2050 | Department for the Economy (economy-ni.gov.uk³)

3.2 Regional and Local

- North Western Regional Economic and Spatial and Strategy
- Relevant CFRAMS Flood Risk Management Plan (OPW)
- Pollution Reduction Programmes for Shellfish Waters (DHPLG)
- Regional Waste Management Plan (CUWR)
- National Investment Framework for Transport Investment (DTTAS)
- National River Basin Management Plans (DHPLG)
- Donegal County Council Documentation: Donegal County Development Plan 2018-2024 and draft CDP 2024-2030 and associated environmental assessments including SEA Environmental Report (ER), Natura Impact Report (NIR) and Strategic Flood Risk Assessment (SFRA).
- Draft Letterkenny LAP and Local Transport Plan 2023 -2029
- Donegal Climate Change Action Plan 2019-2024

3.3 Key implications and principles arising from the Plan, Policy and Programme Review.

Arising from the review, several key principles and implications for the SEA ER can be established. These principles are considered through the SEA process and inform the assessment. For consistency the Strategic Environmental Objectives (SEOs) developed for the draft Donegal County Development Plan 2024 -2030 are proposed for application in the SEA of the CAP, as appropriate. In addition, the key environmental messages identified in the EPA 'State of the Environment' report for 2020 are presented, where relevant, to align the key principles with these key environmental messages and challenges for the environment, in addition to relevant UN Sustainable Development Goals. Please see **Table 3.1** overleaf which presents this information. SEOs were not commented upon during the SEA Scoping stage and remain as shown below and in Chapter 5.

³ Inserted following SEA Scoping Submission by DAERA

TABLE 3-1 KEY PRINCIPLES AND IMPLICATIONS FOR THE SEA OF THE COUNTY DONEGAL CAP 2024-2029

Strategic Environmental Objectives in the Draft Donegal County Development Plan 2023 -2030	EPA Ireland's Environment 2020	UN Sustainable Development Goals
Climate Change	<ul style="list-style-type: none"> SOE3 Health and Wellbeing SOE5 Air Quality SOE4 Climate SOE6 Nature SOE 8 Marine SOE9 Clean Energy SOE 11 Water Services SOE12 Circular Economy SOE13 Landuse 	<ul style="list-style-type: none"> Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable. Goal 12: Ensure sustainable consumption and production patterns. Goal 13: Take urgent action to combat climate change and its impacts
Population and Human Health (PHH)	<ul style="list-style-type: none"> SOE3 Health and Wellbeing SOE4 Climate SOE5 Air Quality SOE 11 Water Services SOE 12 Circular Economy SOE13 Landuse 	<ul style="list-style-type: none"> Goal 3: Ensure healthy lives and promote well-being for all at all ages. Goal 6: Ensure availability and sustainable management of water and sanitation for all. Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all. Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation. Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable. Goal 12: Ensure sustainable consumption and production patterns. Goal 13: Take urgent action to combat climate change and its impacts. Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Strategic Environmental Objectives in the Draft Donegal County Development Plan 2023 -2030	EPA Ireland's Environment 2020	UN Sustainable Development Goals	
<p>Biodiversity, Flora and Fauna (BFF)</p>	<ul style="list-style-type: none"> • Conserve, protect, maintain, and where appropriate restore biodiversity, flora and fauna, natural habitats, and associated ecosystems particularly International and EU designated sites and protected species. • Ensure no adverse effects on the integrity of any European site, with regard to its qualifying interests, associated conservation status, structure and function. • Conserve and protect Nature Conservation sites of National Importance including NHAs, pNHAs National Parks, Nature Reserves, Wildfowl Reserves and species protected under National Legislation (e.g. Wildlife Act) • Safeguard biodiversity features in both designated sites and the wider environment which function as stepping stones for migration, dispersal and genetic exchange of wild species. • Conserve and restore biodiversity in the wider countryside. • Limit the spread, dispersal and growth of invasive species. 	<p>SOE 4 Climate SOE 5 Air Quality SOE 6 Nature SEO 8 Marine SOE 11 Water Services SEO 12 Circular Economy SOE 13 Land use</p>	<p>Goal 3: Ensure healthy lives and promote well-being for all at all ages. Goal 6: Ensure availability and sustainable management of water and sanitation for all. Goal 13: Take urgent action to combat climate change and its impacts. Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development. Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</p>
<p>Soil and Geology (SG)</p>	<ul style="list-style-type: none"> • Protect soils against pollution, and prevent degradation of the soil resource and associated ecosystem services • Safeguard areas of prime agricultural land and designated geological sites 	<p>SOE4 Climate SOE6 Nature SOE 11 Water Services SOE 12 Water Services SOE13 Landuse</p>	<p>Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable. Goal 12: Ensure sustainable consumption and production patterns. Goal 13: Take urgent action to combat climate change and its impacts. Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.</p>

Strategic Environmental Objectives in the Draft Donegal County Development Plan 2023 -2030		EPA Ireland's Environment 2020	UN Sustainable Development Goals
Water (W)	<ul style="list-style-type: none"> Protect, avoid deterioration of and, as appropriate, restore/enhance the quality of surface, ground and marine waters and their associated ecosystems including limiting the input of pollutants. Ensure the sustainable use and protection of water resources. Protect the coastal environment based on an ecosystem approach and taking ecological responsible coastal protection measures 	SOE3 Health and Wellbeing SOE5 Air Quality SOE4 Climate SOE6 Nature SOE 11 Water Services SOE13 Landuse	Goal 6: Ensure availability and sustainable management of water and sanitation for all. Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable. Goal 13: Take urgent action to combat climate change and its impacts. Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development. Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.
Air and Noise (AN)	<ul style="list-style-type: none"> Avoid, prevent and reduce air pollution and environmental noise in order to maintain and improve air quality and reduce harmful effects on human health and the environment. Achieve compliance with relevant CAFÉ and WHO air quality limits and guidelines particularly in urban areas. Achieve and maintain a 'Good' Air Quality Index for Health (AQIH) in Donegal 	SOE3 Health and Wellbeing SOE5 Air Quality SOE4 Climate SOE6 Nature SOE 8 Marine SOE9 Clean Energy SOE 11 Water Services SOE12 Circular Economy SOE13 Landuse	Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all. Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable. Goal 13: Take urgent action to combat climate change and its impacts.
Material Assets	<ul style="list-style-type: none"> To sustainably develop new and efficiently utilise and (where appropriate) protect existing material assets (e.g. residential, energy, transport, water, wastewater, community, telecoms and land) by promoting compact consolidated growth and efficient land use planning. Promote the circular economy, reduce waste and increase energy efficiency. 	SEO3 Health and Wellbeing SOE 5 Air Quality SOE9 Clean Energy SOE 13 Land use SOE 11 Water Services SOE 12 Circular Economy	Goal 6: Ensure availability and sustainable management of water and sanitation for all. Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all. Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

Strategic Environmental Objectives in the Draft Donegal County Development Plan 2023 -2030		EPA Ireland's Environment 2020	UN Sustainable Development Goals
	<ul style="list-style-type: none"> Avoid inappropriate development in areas at risk of current or future flooding and prevent new developments increasing flood risk elsewhere. 		<p>Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable.</p> <p>Goal 12: Ensure sustainable consumption and production patterns.</p> <p>Goal 13: Take urgent action to combat climate change and its impacts.</p> <p>Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.</p>
Cultural Heritage (CH)	<p><i>To support adaptive re-use of existing uninhabited and derelict structures where possible opposed to demolition and new build (to promote sustainability and reduce landfill).</i></p> <p>Conserve, enhance,¹preserve and record architectural and archaeological heritage</p>	<p>SOE3 Health and Wellbeing</p> <p>SOE 12 Circular Economy</p> <p>SOE13 Landuse</p>	<p>Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable.</p> <p>Goal 13: Take urgent action to combat climate change and its impacts.</p>
Landscape	<p>To protect and manage the landscape (both rural and urban) in a sustainable manner.</p> <p>Promote and enhance landscape and <i>seascape</i> character at county and local scale through sensitive siting and design</p>	<p>SOE3 Health and Wellbeing</p> <p>SOE 4 Climate</p> <p>SOE 5 Air Quality</p> <p>SOE 6 Nature</p> <p>SEO 8 Marine</p> <p>SOE 11 Water Services</p> <p>SOE 12 Circular Economy</p> <p>SOE 13 Land use</p>	<p>Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable.</p> <p>Goal 13: Take urgent action to combat climate change and its impacts.</p>

¹ Amended on foot of DAERA Scoping submission and replaces SEO in draft CDP which is very similar in intent.

4 Summary of current Environmental Baseline in County Donegal.

4.1 Introduction

The plan area encompasses County Donegal. Therefore, the primary focus of the environmental baseline is the county, and depending on the environmental parameter at a larger scale. For example, built heritage might be confined to a street or specific site, whereas water resources such as rivers, lakes, estuaries and coastal waters are far larger in scope and can be influenced by activities at a larger scale or activities upstream across loughs, catchments and marine waters including transboundary effects. Similarly, mobile species may disperse over larger areas of the landscape and require consideration at County and regional level depending on the species under consideration. The scope of the baseline has been informed by the scoping submissions received. Where appropriate, the SEA ER for the draft Donegal County Development Plan has been used and integrated to this chapter¹.

4.2 Green and Blue Infrastructure and Ecosystem Services

Green infrastructure planning is a successfully tested tool to provide environmental, economic and social benefits through natural solutions. In many cases, it can reduce dependence on 'grey' infrastructure that can be damaging to the environment and biodiversity, and often more expensive to build and maintain. While green infrastructure promotes the amenity and quality of life value of nature within urban settings and is not solely for the benefit of biodiversity, it is noted that it can contribute significantly to the retention and enhancement of ecological connectivity.

Green Infrastructure is defined as *'an interconnected network of green space that conserves natural ecosystem values and functions and provides associated benefits to human populations'* (Comhar, 2010). Such spaces include woodlands, coastlines, flood plains, hedgerows, fields, gardens, turloughs, lakes, city parks and street trees, and the benefits to humans they provide include water purification, flood control, carbon capture, food production and recreation. Incorporation of green infrastructure in spatial planning and sectoral decision making helps to prevent biodiversity loss and fragmentation of ecosystems, thus restoring, maintaining and enhancing ecosystems and their services. It will improve resilience and adaptation to climate change and enable greater connectivity between ecosystems in protected areas and the wider countryside. The European Commission produced a strategy on green infrastructure in 2013. Due to its obligations under the European Landscape Convention, Ireland has prepared the National Landscape Strategy for Ireland 2015-2025, which has significant implications for biodiversity.

There are many inter-relationships between green-infrastructure and other environmental parameters, for instance, its integration with human health through sport and recreation opportunities as well as increasing accessibility to amenity and recreation areas and promoting social inclusion; natural heritage and cultural heritage. Donegal is rich in biodiversity and developing the connectivity between existing ecological corridors offers great potential in the Plan area for biodiversity and increasing resilience to climate change effects.

4.2.1 Ecosystem Services

The following section provide a brief overview of the existing ecosystem present in and around the plan area. The NW RESS states the following under Regional Policy Objective 5.6

RPO 5.6 Develop awareness and create a greater appreciation of the benefits of our natural heritage, including on the health, wealth and well-being of the regions ecosystem services.

¹ [Documents — Donegal Dev Plan 2024-2030](#)

See **Box 1** below for description of Ecosystem Services and **Figure 4.2** for graphic of same; whilst **Figure 4.3 to 4.5** presents the NPWS Mapping Ecosystem Services Pilot Project that identifies a number of ecosystem services at plan level. These maps highlight the significant role peat soils and bogs play in ecosystem services at plan level.

BOX 1 ECOSYSTEM SERVICES

Ecosystem services are the benefits that flow from nature to people. They can be provisioning (e.g. the supply of food, clean air and water and materials), regulating (e.g. water and climate regulation, nutrient cycling, pollination, or the formation of fertile soils), or cultural (e.g. recreation opportunities, or the inspiration we draw from nature). Natural ecosystems are multifunctional – they can provide a wide range of services simultaneously. The range and flow of these benefits depends largely on biodiversity and ecosystem condition.

A network of healthy ecosystems often provides cost-effective alternatives to traditional 'grey' infrastructure, offering benefits for EU citizens and biodiversity. This is why the EU promotes the use of nature-based green and blue infrastructure solutions¹.

FIGURE 4-1 PRINCIPAL ECOSYSTEM SERVICES



¹ https://ec.europa.eu/environment/nature/ecosystems/index_en.htm

FIGURE 4-2 ECOSYSTEM SERVICES CARBON IN SOIL

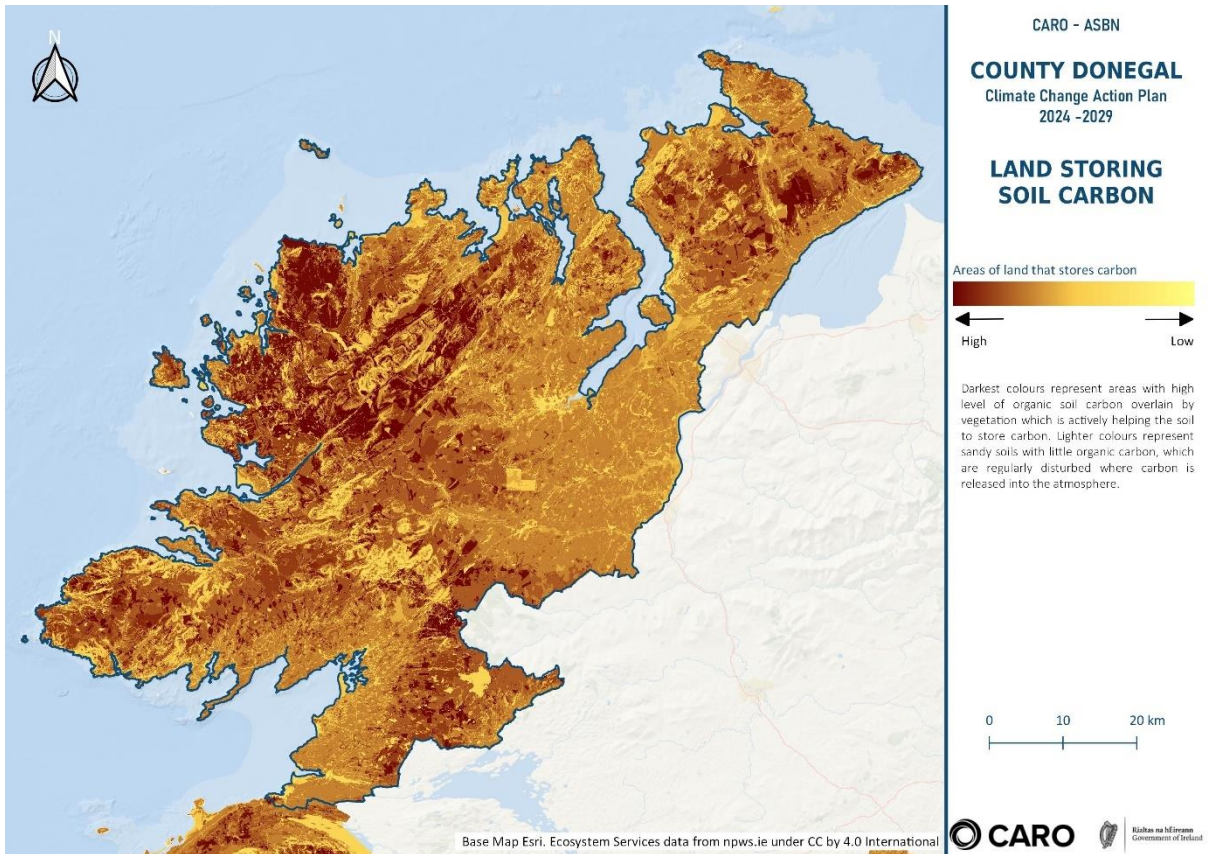


FIGURE 4-3 ECOSYSTEM SERVICES WATER RETENTION

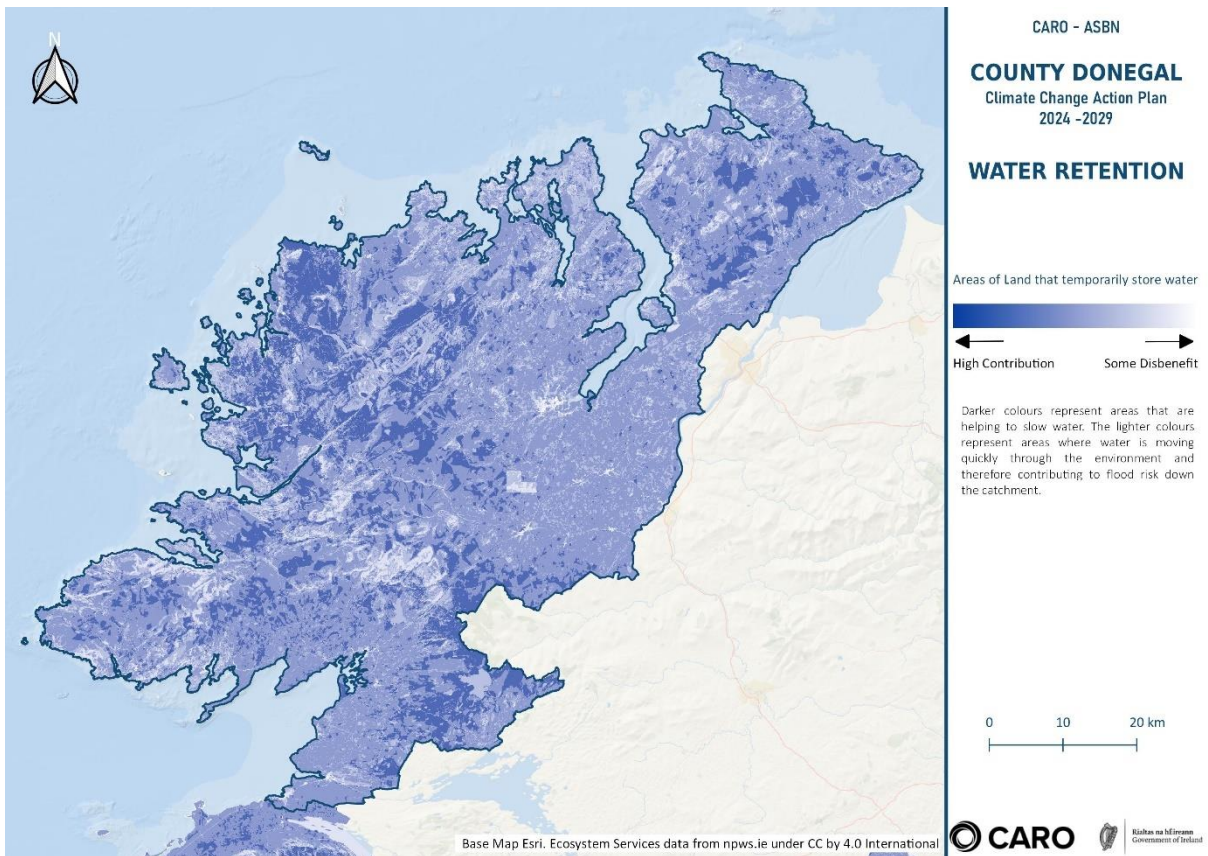
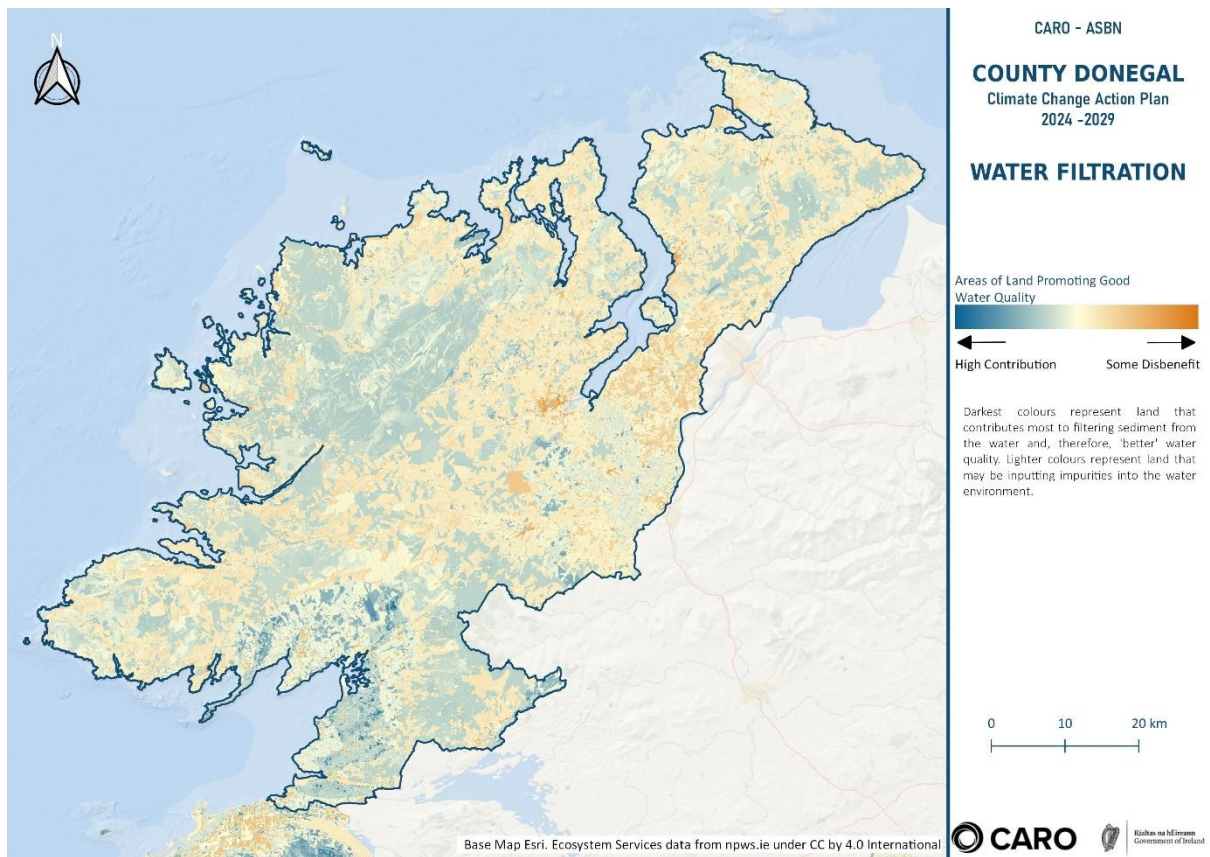


FIGURE 4-4 ECOSYSTEM SERVICES WATER FILTRATION



4.3 Biodiversity, flora and fauna

4.3.1 Designated sites

The Plan area is rich in biodiversity, containing many important, and protected, habitats and species such as, coastal habitats from cliffs to estuaries, reefs, machairs, mudflats, sandy beaches, and terrestrial habitats such as lakes, turloughs, fens, wetlands, woodlands, bogs, wildfowl (duck and geese), waders, salmon, lamprey and otters. However, it also contains many other habitats which are not protected such as scrub, parks, streams, hedgerows, tree lines, roadside verges, housing estate open spaces and gardens. It is these locally important habitats and species within the landscape, including extensive areas of peatlands and heath, broadleaf woodlands, grasslands and turloughs, which provide links between the more rare and protected habitats, and are essential for the migration, dispersal and genetic exchange of wild plants and animals such as garden birds (robins, wrens, finches, etc.) and migrant summer visitors (swallows, cuckoos, warblers, etc), otters, hedgehogs, bats, pigmy shrew and other Irish mammals, Freshwater Pearl Mussel, White-clawed Crayfish, lamprey, salmon and other fish species, and a variety of invertebrates, including Geyer’s Whorl Snail, beetles, bees, butterflies, dragonflies and damselflies. They also allow for the spread of seeds, which benefit the wildflower populations of County Donegal. It is recognised that many rare and protected species are reliant on locally important species, and as such the protection of common habitats and species should not be underestimated.

In the context of County Donegal, there are also many habitats and mobile species that are transboundary and include Lough Foyle and mobile species such as salmon, wetland and waterbirds. There is a total of 73 Natura 2000 sites (both terrestrial and marine) within County Donegal comprising 47 Special Areas of Conservation (SAC) and 26 Special Protection Areas (SPA). In particular 41 Annex I Habitats (including 9 priority habitats) are represented within SAC’s in Donegal. In addition, 17 Annex II species occur in Donegal. A full schedule of Natura Sites, together with

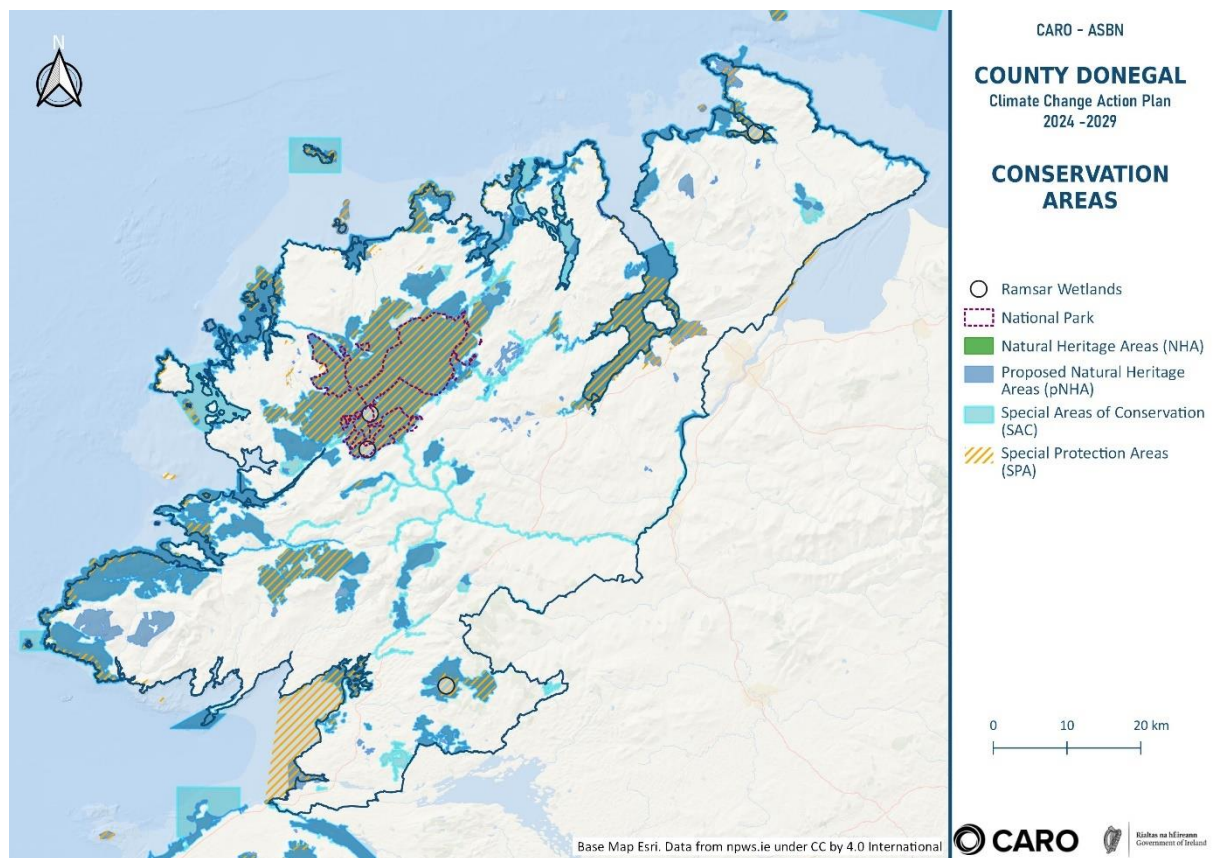
information on their qualifying interests, conservation objectives, and threats to their integrity is provided in the Appropriate Assessment Natura Impact Report also prepared for the CAP 2024-2029.

The River Foyle and tributaries is a Special Area of Conservation that flows between Counties Donegal/Derry, and Tyrone and Lough Foyle is both a Ramsar site and Special Protection area.

Natural Heritage Areas also have a significant role in supporting the species using Natura 2000 sites mainly relating to mobile fauna such as mammals and birds which may use pNHAs and NHAs as “stepping stones” between Natura 2000 sites. Article 10 of the Habitats Directive and the Habitats Regulations 2011, place a high degree of importance on such non-Natura 2000 areas as features that connect the Natura 2000 network. Features such as ponds, woodlands and important hedgerows form key “stepping stones”. They also provide other important ecosystem services such as carbon sequestration, flood attention, water filtration, and recreation. There are a number of other sites across the County that have been designated for environmental and/or ecological protection. These include the Glenveagh National Park, Ramsar Sites, Nature Reserves and Wildfowl Sanctuaries. . Four Ramsar sites have been identified in Donegal namely Lough Barra Bog (176) and Meenachullion Bog (194), as ecologically important and significant lowland blanket bog; Pettigo Plateau for ecologically important and significant highland Bog; and Trawbearga Bay an ecologically important sandy mud estuary. These sites cover a total area of 2,273 hectares¹, and much of these are also designated as Natura 2000 sites.

These areas are of huge importance for the protection of biodiversity at a local level and also in the provision of amenity and educational resource. See **Figure 4.5** for principal designated sites.

FIGURE 4-5 DESIGNATED CONSERVATION SITES



¹ [https://rsis.ramsar.org/ris-search/?f%5B0%5D=regionCountry en ss%3AEurope&f%5B1%5D=regionCountry en ss%3AIreland](https://rsis.ramsar.org/ris-search/?f%5B0%5D=regionCountry%5B%5D=regionCountry%5B%5D=regionCountry%5B%5D=Aireland)

4.3.2 Peatlands and wetlands

The following section summarises these key habitats which are essential in terms of climate change adaptation and mitigation as well as providing numerous services and space for nature.

Donegal has extensive peatlands consisting of both upland and Atlantic blanket bog types. These peatlands act as a unique wetland habitat, contain a variety of plant and animal species (e.g. Hen Harrier, Red Grouse, Curlew, Greenland White-fronted Goose, sphagnum mosses, rushes and sedges, bog cotton, ling heather) and are a key component of Donegal's Biodiversity. They also provide other important ecosystem services such as carbon sequestration, flood attenuation, water filtration, and recreation.

A wetland is an area that is saturated by water and this saturation has allowed specially adapted plants and animals to establish. As part of the project to map Ireland's wetlands, a preliminary mapping project of all wetlands (both known and potential wetland sites) in County Donegal has been completed¹. Many of these are regarded as being internationally important. Wetlands are effectively the border between the open water and dry land. Reeds, sedges, water forget-me-not, marsh marigold and purple loosestrife provide cover for ducks and wading birds. Other wetlands, such as bogs, heath and fens, occur where the water table is close to the surface, or where the bedrock is impenetrable. Wetlands, such as fens and bogs, only retain carbon if they are moist. Therefore, when a bog or fen is drained or infilled, they become major carbon sources, releasing huge quantities of carbon dioxide into the atmosphere as the peat decays and oxidises. In addition, the changing conditions result in the loss of water dependant species. Changes in water quality as a result of pollution (from surface run-off, WWTPs etc.) also significantly impact wetlands.

The value of wetlands include their function in improving water quality, for floodwater storage whereby they can slow down the force of flood and storm waters as they travel downstream; habitat for wildlife; support biodiversity; provide valuable open space and create recreational opportunities; are vital for preventing further climate change by acting as carbon storage and are part of cultural heritage.²

There are many wetland areas in the county, many of which are protected under national or European designations in the form of SACs, SPAs, NHAs. There are many more wetland areas outside of designated sites as well as potential wetland sites which, due to geology and hydrogeology of the area, include turloughs some of which only become visible during the wetter winter months. In addition, there are areas of *cladium* fen (priority Annex habitat) in the County.

4.3.3 Woodland habitat

Ancient woodlands are considered to be those which are established and had continuous cover before afforestation and planting became common practice in Ireland. Ancient woodlands are vulnerable to impacts from clearing and sensitive due to their age and habitat types associated with them. 5 sites in Donegal have identified by NPWS as containing Possible Ancient Woodlands (PAW) following desk-based research, namely: Ardnamona Wood; Ballyarr Wood; Feddyglass Wood; Keeloges; and Mullangore Wood. 4 of these are located within SACs, pNHAs and Nature Reserves.

Hedgerows are an important feature of the Donegal landscape and an integral part of the rural environmental fabric, especially in the south and east of the county. The county's hedgerow network is valuable not only in terms of agriculture, landscape and biodiversity—facilitating the

¹ <http://www.wetlandsurveysireland.com/wetlands/map-of-irish-wetlands--/status-of-sites-displayed.html>

² <http://www.wetlandsurveysireland.com/>

movement of wild flora and fauna, acting as ecological corridors between habitat features, but functions to filter pollution, improve water quality and sequester carbon.

4.3.4 Coastal habitats

The long and varied Donegal coastline contains a wide range of coastal habitats from cliffs to estuaries, mudflats, machair, sandy beaches and offshore islands. Transitional and coastal waters are, in general of high and good status.

4.3.5 Protected species and habitats outside protected sites

A significant portion of Donegal's biodiversity is located in the wider countryside. This biodiversity is contained within natural heritage features as hedgerows/field boundaries, trees, woodlands, wetlands, and water bodies which collectively provide habitats for native wild flora (e.g. hawthorn, whitethorn, gorse, holly, ash, beech, birch, oak, rowan, willow, bramble, wild flowers and aquatic plants) and fauna (e.g. badgers, hedgehogs, hare deer, wild birds, fish and insects). These features act as vital ecological corridors for wildlife and species, collectively deliver crucial ecosystem services such as carbon sequestration/storage, nutrient cycling, water purification and flood attenuation, and represent key components of our rural landscapes and townscapes and thus represent essential components of our overall biodiversity. Moreover Article 10 of the Habitats directive implicitly recognises that certain landscape features by virtue of their linear and continuous structure (such as rivers with their banks or traditional system for marking field boundaries) or their function as stepping stones (such as ponds or small woods) are essential for the migration, dispersal and genetic exchange of wild species and encourage member states to manage such features.

The Wildlife Acts, 1976 and 2000 are to provide for the protection and conservation of wild fauna and flora, to conserve a representative sample of important ecosystems, to provide for the development and protection of game resources and to regulate their exploitation, and to provide the services necessary to accomplish such aims. It includes a diverse range of wild birds, land and marine mammals and amphibians. Protected plants are those that are legally protected under the Flora Protection Order, 2015.

4.3.6 Invasive species

The EU adopted "Regulations on the prevention and management of the introduction and spread of invasive non-native species" (2013/0307(COD)) came into force on the 1st of January 2015. This regulation seeks to address the problem of invasive species in a comprehensive manner so as to protect native biodiversity and ecosystem services, as well as to minimize and mitigate the human health or economic impacts that these species can have. The Regulation foresees three types of interventions; prevention, early detection and rapid eradication, and management.

Some species of aquatic and terrestrial invasive flora and fauna which specifically pertain to Donegal include; *Gunnera tinctoria* (giant rhubarb), *Gunnera manicata* (Brazilian giant rhubarb), *Fallopia japonica* (Japanese knotweed), *Rhododendron ponticum* (rhododendron), *Heracleum mantegazzianum* (giant hogweed), *Neovison vison* (American mink), *Corbicula fluminea* (Asian river clam), *Dreissena polymorpha* (zebra mussel).

4.3.7 Key Biodiversity Flora and Fauna Issues relating to the Climate Action Plan

- Focus is being put on predicting how a changing climate will impact on some of our most threatened species, for example species at the range limits. Combined with change landuse patterns and activities most recently research (2023¹) record a decline in range and abundance or both of native plant species with native grassland species suffering the greatest decline. Lakes and wetlands have also been affected; some lakes are now dominated by the

¹ Botanical society of Britain and Ireland Plant Atlas 2020. [BSBI-Plant-Atlas-2020-press-release-Ireland-FINAL.pdf](#)

few aquatic plants favoured by nutrient enrichment, such as the introduced Nuttall's Pondweed. Many peatbogs have been planted with conifers or converted to agriculture, excluding the native bog plants such as heathers and sundew. Peatland habitats are important for carbon storage, and their restoration is essential as part of our efforts to combat climate change. There is evidence that climate change may have affected the Irish flora by helping some southern species to spread northwards,

- In contrast, the overwhelming majority (80%) of species introduced into Ireland since 1500 have increased. Most of these non-native species are benign but some, such as Himalayan Balsam and Rhododendron, have become invasive, with a negative impact on the native flora.
- Alternative energy options are being explored in the County. A common concern in relation to wind energy developments relates to impacts on peat soils and hydrogeology, impacts on bird species, and habitat disturbance and in particular the effects on the freshwater pearl mussel as an Annex species.
- In County Donegal one of the most prevalent impacts of climate change in recent years has been the increase in flood events. Management of flood-related issues is therefore of critical importance to the future sustainable development of the county.
- Coastal erosion is another prevalent impact of climate change in the county. There is firm evidence that rising sea-levels and increasing storm frequency and wave energy can increase the rate of erosion and the incidence of storm and flood-related events (e.g. land-ward incursion, wave damage, flooding). Over a period of decades, this will inevitably lead to loss or modification of some coastal habitats and interference with human use of the coastal zone.
- Of the 94 identified ecological processes¹, across terrestrial, marine and freshwater ecosystems, that underpin ecosystem functioning and support services to people, 82% showed evidence of impact from climate change. The observed and projected climate change impacts on Ireland's biodiversity can be categorised into four broad categories:
 - a) Changes in phenology (the timing of lifecycle events);
 - b) Changes in the geographical range of species;
 - c) Increased degradation of habitats and changes in ecosystem processes;
 - d) Increased occurrence of invasive species;

Previous extreme weather events that have impacted on biodiversity include the extended cold spell of 2010 and an exceptionally dry summer of 2018 resulted in numerous (50 estimated) large and smaller fires on upland and hill areas².

4.3.8 SEA recommendations:

- Clear and measurable actions to address nature based solutions to support co benefits and ecologically driven responses to interventions around climate change impacts, mitigation and adaptation.
- Actions to address and respond to invasive species.
- Creating space for nature at landscape scale to facilitate mobile species.
- Research into interactions between climate change on soil, water, air and biodiversity.

4.4 Population and Human Health

Preliminary Census 2022 results indicates that Donegal now has a population of 166,231 an increase of 4.5% from the Census 2016 results (7,566 people) made up of 3,682 natural increase and 3,447 migration. This contrasts with a decrease a 6.5% decrease between Census 2011 and Census 2016 corresponding with a period of economic decline.

The county possesses a strong community identity and a rich and diverse cultural heritage.

¹ Biodiversity Climate change sectoral adaptation plan NPWS 2019

²

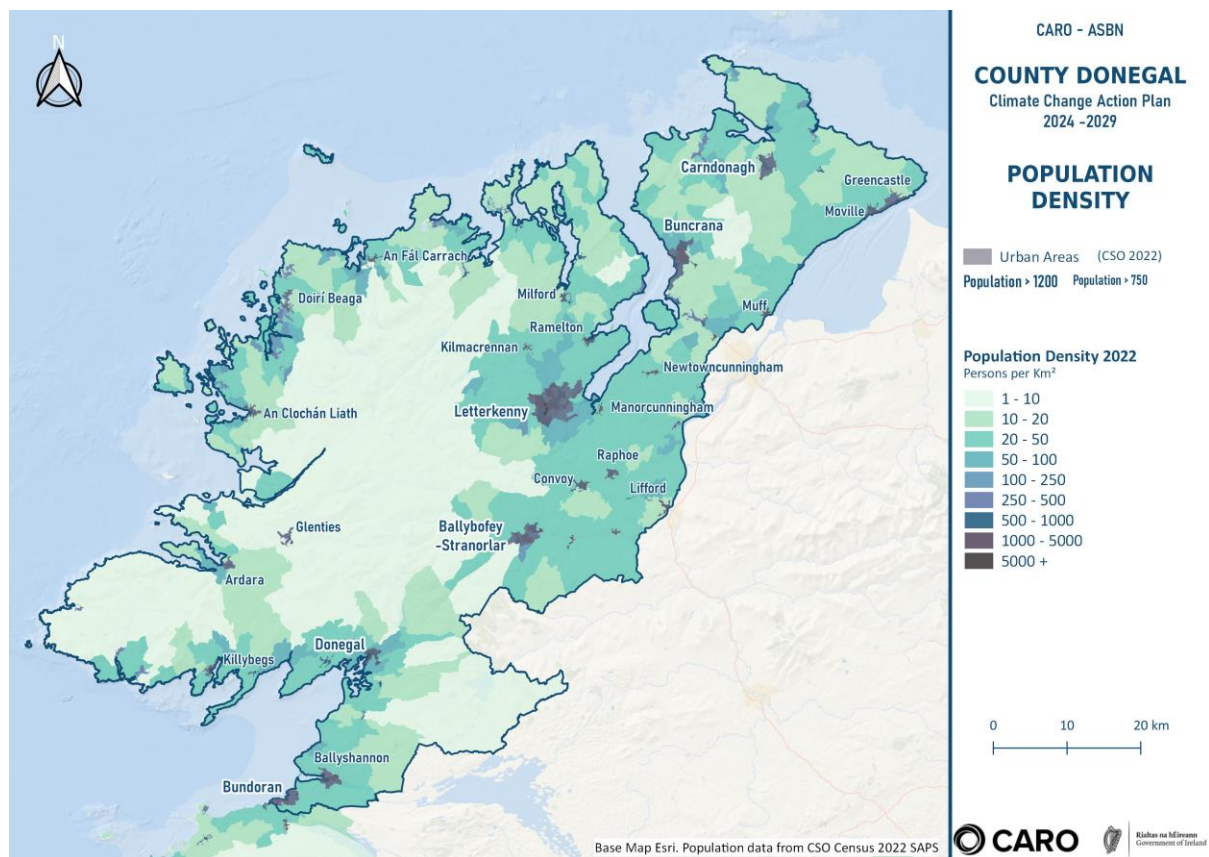
The Donegal Gaeltacht is comprised of a number of towns, villages and islands found near the mountains of the Derryveagh range including Errigal and the scenic Poisoned Glen. Further south Cill Chartha (Kilcar), Gleann Colm Cille, and Ard a'Ratha (Ardara) . Donegal's Gaeltacht Láir (central Gaeltacht), located between Gweebarra Bay, Gleann Fhinne, and Gleann Domhain (Glendowen). Head further north and you enter na Rosa (the Rosses), Gaoth Dobhair (Gweedore) and Cloich Cheann Fhaola (Cloughaneely), areas of outstanding natural beauty. The most northerly point of the Donegal Gaeltacht is located via the Rosguill Peninsula with journey's end at Fanad Head.

Significant progress continues to be made in the improvement of physical, social and community infrastructure in the towns and villages throughout the county, as it is recognised that social infrastructure and community development supports economic growth, provides employment opportunities and improves the well-being and quality of life for the people of Donegal.

The County is primarily rural in terms of settlement with key towns of Donegal, Bunrana, Ballybofey-Stranorlar and Donegal the largest settlements in terms of population size.

Letterkenny and Westport. **Figure 4.6** presents the population density at plan level based on the 2022 Census data.

FIGURE 4-6 POPULATION DENSITY



4.4.1 Human Health

Impacts can arise on people’s health and quality of life from a range of environmental factors, often through a combination of environmental impacts such as landuse, water quality, air quality, noise and transport patterns. Many of these may be exacerbated from climate change effects and impacts. The exposure to contaminants or pollutants can have serious implications for human health. Potential impacts on population and human health include inadequate water and wastewater and waste infrastructure, contamination of soils, excessive noise, flooding and poor air quality in areas where there are large volumes of traffic.

Census 2016 found that the average age in Donegal is 38.5 years, slightly higher than the national average of 37.4 years. It also recorded a total dependency ratio of 60.5%, compared to a national figure of 52.7% for the county (Dependents are defined for statistical purposes as people outside the normal working age of 15-64). It also found that Donegal had an Old age dependency ratio of 35.3% which was significantly higher than the national figure of 20.4%. This growing population of older persons will increase sensitivity to climate related hazards, especially heatwaves and associated health related illness.

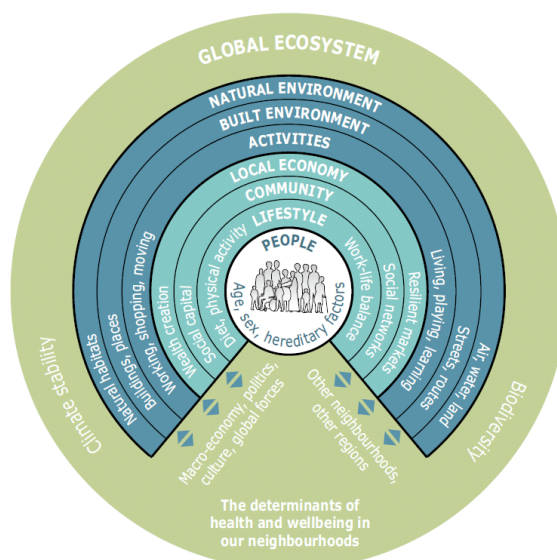
The Institute of Public Health states:

‘Where people live affects their health. There are a number of elements of the living environment that influence health including the built environment, travel choices and the communities in which people live. The design, maintenance and location of buildings influence health. Similarly, public spaces and transport networks can facilitate health by providing opportunities for physical activity, social interaction and access to social goods’.

Disadvantaged people are more likely to live in poor quality built environments and have limited access to transport and local amenities supporting healthy choices. This has further implications in regard to climate change and adaptation and mitigation to climate change including transport options, green infrastructure, energy provision and efficiencies and air quality emissions. Poor air quality is a major health risk, causing lung diseases, cardiovascular diseases, and cancer. Health implications of poor air quality from transport impacts the lungs, liver & spleen¹Children, the elderly and citizens suffering from asthma and respiratory conditions are most affected. As well as negative effects on health, air pollution has considerable economic impacts; cutting short lives, increasing medical costs, and reducing productivity through lost working days. Other environmental resources interact with human health and include material assets (wastewater and water services, energy, transport) , and water quality as well as access to green and blue space.

Figure 4.7 below identifies key factors that contribute to human health.

FIGURE 4-7 THE DETERMINANTS OF HEALTH AND WELL-BEING IN OUR NEIGHBOURHOODS²



¹ Life Emerald 2023.

² SOURCE: HUMAN ECOLOGY MODEL OF A SETTLEMENT, BARTON AND GRANT, 2006

The County Donegal Climate Change Adaptation Strategy 2019-2024 identified the following effects associated with climate change at county level, many of which interact directly and indirectly with human health.

- Increased temperatures with impacts on human wellbeing, including heat stress and expanded vectors for mosquito-borne and other diseases.
- Ocean warming and acidification, with impacts on the health - of our marine - ecosystems, including our fisheries resources
- Increased incidence of heavy rainfall events, flooding and more severe storms with direct, and indirect, impacts on property, infrastructure, wildlife, community and economic function

4.4.2 Key Population and Human Health Issues relating to the Climate Action Plan

- Climate¹ change can influence health through altering exposure to stressors such as extreme weather events; vector-, food- and waterborne infectious diseases; changes in the quality and safety of air, food, and water; and stresses to mental health and wellbeing.
- Exposures that result from climate change can be categorised as exposures with direct health impacts (e.g. storm, drought, flood, heat wave, temperature change, wildfires) or exposures with indirect health impacts (e.g. water quality, air quality, land use change, ecological change).
- The extent to which exposures which result from climate change impacts on health will be influenced by mediating factors. These include: individual or social factors such as demographics, socio-economics, health status, access to care, conflict. environmental factors for example geography, baseline weather, air and water quality, vegetation. institutional capacity such as primary health care, warning systems.
- The potential climate change impacts on health are wide ranging such as deaths, injuries, respiratory disease, heat stroke, poisoning, water-borne diseases, infectious diseases, under nutrition, mental illness. These can include direct impacts (eg drowning), vector borne and other infectious diseases such as Lyme disease, impacts arising from air quality in terms of respiratory diseases, impacts to infrastructure with accompanying health impacts such as contaminated water, and water services.
- Health gains can occur from key climate change actions (“co-benefits”) such as: increasing consumption of diets with low greenhouse gas emissions and improving agriculture and good waste practices. Reducing co-pollutants from household solid fuel combustion, better lighting and application of passive design principles. Reducing greenhouse gases and associated co-pollutants from industrial sources. Increasing energy efficiency, reducing demand for fossil fuels and increasing demand renewable energy. Increasing green areas in urban spaces. Increasing active travel, modifications to public transport and to the built environment.
- EPA (2023) research² identified that people in Ireland feel that ‘others’ - such as future generations or people far away - are more threatened by climate change than themselves in the here and now. This means that many people underestimate the immediate risks and already-occurring effects of climate change here in Ireland. The youngest adults (18-24 years) consistently exhibit significantly higher levels of concern, with young women most concerned about climate change. People in Ireland support climate change policies. Where

¹ Health Impacts of Climate Change and the Health Benefits of Climate Change Action: A Review of the Literature A Department of Health Research Paper, 2019.

² Climate Change in the Irish Mind - Support for Climate Policies and Climate Change in the Irish Mind - Climate Risk Perceptions. <https://www.epa.ie/news-releases/news-releases-2023/people-in-ireland-support-climate-policies-with-some-opposition-specific-to-local-concerns-and-issues.php>
[Climate Opinion Maps](#) | [Environmental Protection Agency \(epa.ie\)](#)

opposition to climate policies arise, it appears to be driven by practical concerns, rather than by scepticism or suspicion of the science of climate change. 79% of respondents in County Donegal were worried about climate change.

4.4.3 SEA Recommendations

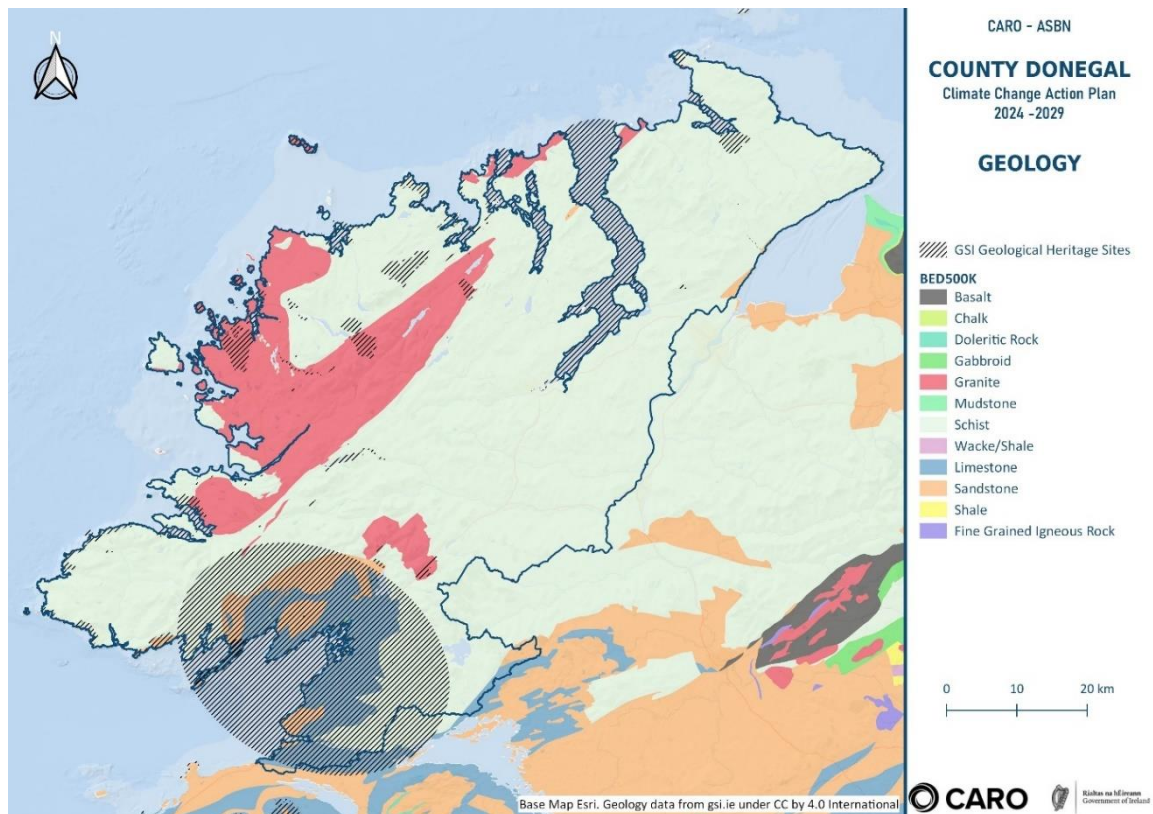
- Actions to support community awareness, engagement and ownership of climate change impacts, mitigation and adaptation.
- Enhanced placemaking through nature based solutions as an adaptive measures and support for active travel and modal shift.
- Support for energy efficiency in the built environment and circular economy.
- Research and support on appropriate landuse activities in the appropriate environment.
- Key focus on groups and demographics more vulnerable to impacts of climate change and support in terms of addressing fuel poverty, access to local food and public transport.
- Investigate and promote the potential and pivotal role creativity can play in addressing the challenges presented by climate action. Just Transition mechanisms and access to support for same.

4.5 Geology and Soils

The underlying Geology in Donegal consists of Precambrian Dalradian Gneiss, Schists, quartzite (700 million years old approx.), granite (approximately 405 Ma approx.), Devonian sandstones, land over carboniferous sandstones and limestones (approximately 350 Ma approx.). see **Figure 4.8** for bedrock geology and geological heritage sites.

The GSI's Landslide Susceptibility Map Viewer highlights potential areas of high and moderately high landslide susceptibility in Donegal most notably on steep mountainous slopes, peatlands and coastal cliffs.

FIGURE 4-8 BEDROCK GEOLOGY

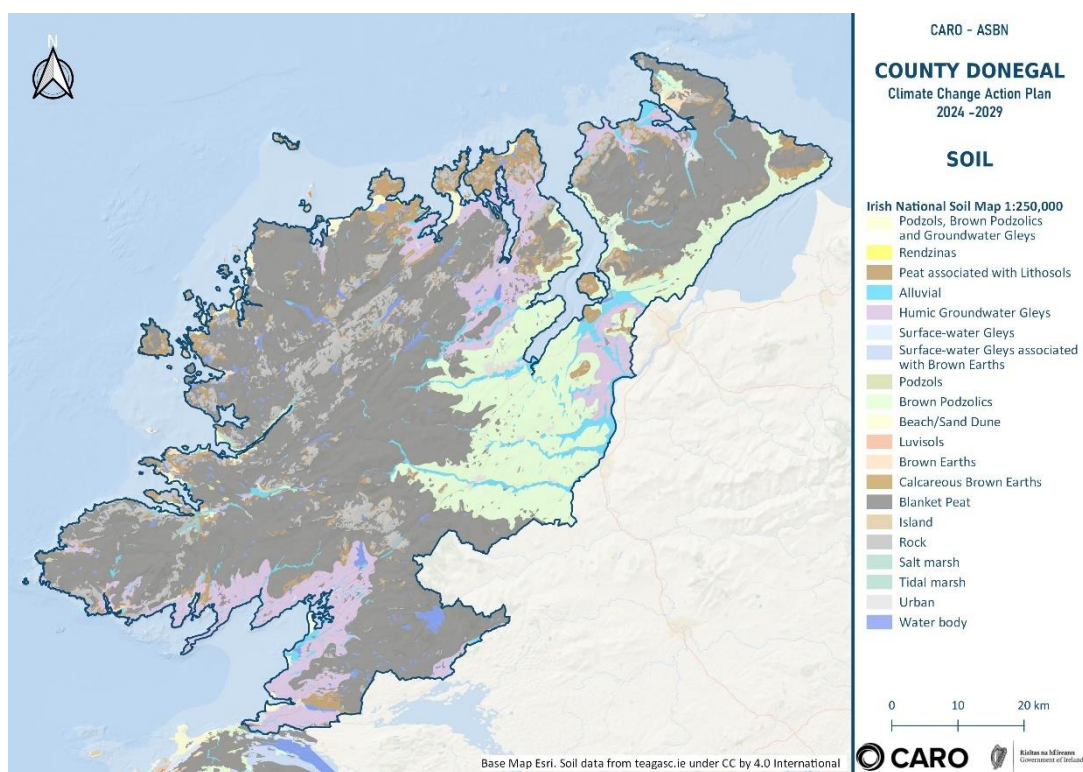


Soils have a number of functions including supporting plant life and life within the soil, biogeochemical cycling of elements, energy cycles, water storage and exchange and ecosystem productivity. Soil formation occurs over very long timescales, and can be considered a non-renewable resource.

“Soil provides critical ecosystem and environmental services (Carilli, 2014; Agrilinks, 2019; Renforth and Campbell, 2021) that maintain key components of global climate and biodiversity (Hector et al., 1999; Kleijn and Sutherland, 2003; Gessner et al., 2010; Isbell et al., 2011; Doula and Sarris, 2016). Soil directly impacts biomass production, habitat diversity, biodiversity and the storage of many elements (e.g. carbon, nitrogen) and substances (e.g. water, organic matter; EC, 2017). From a socioeconomic perspective, soil underpins the security of the global food chain for people and animals, the production of fibre, environments that promote health and well-being (Bevik et al., 2020), and a potential nature-based solution to help mitigate the impacts of flooding and climate change. Soils are central to the discussion of topical issues such as carbon sequestration, nutrient availability, pollution, remediation and equitable economic development. Soil quality (the characteristics and dynamics of soil physical properties, chemistry and biology; Wander et al., 2019) and soil health (the functional ability of soil to provide ecosystem services and management outcomes; Wander et al., 2019) should therefore be key elements of any policy framework relating to soils and soil management.”¹

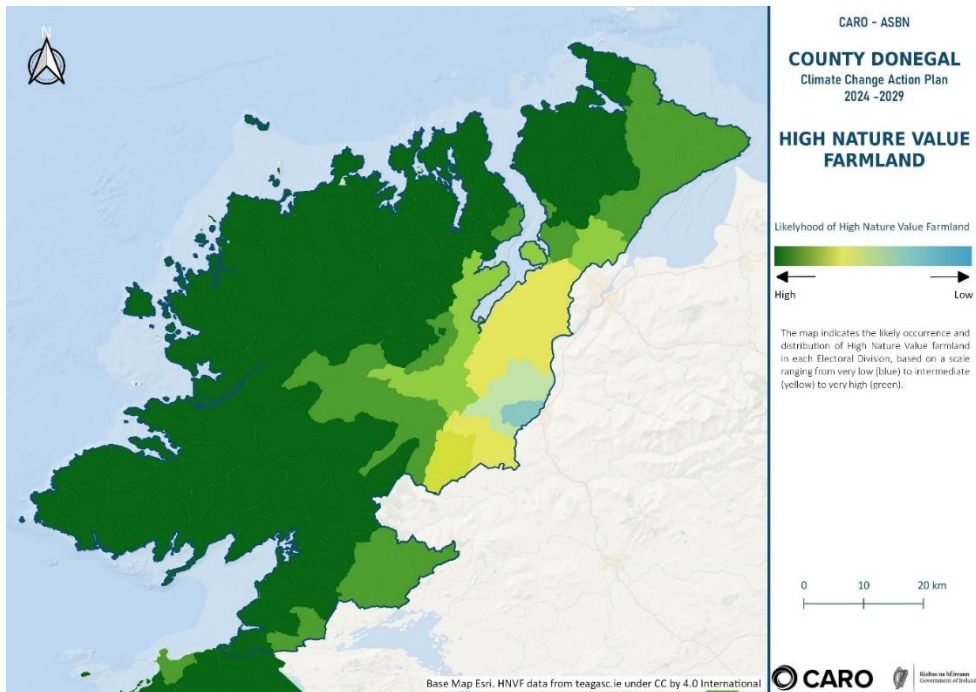
Figures 4.9 and 4.10 present principal soil types at plan level, as well as the mapping of high value nature farmland.

FIGURE 4-9 SOIL TYPE



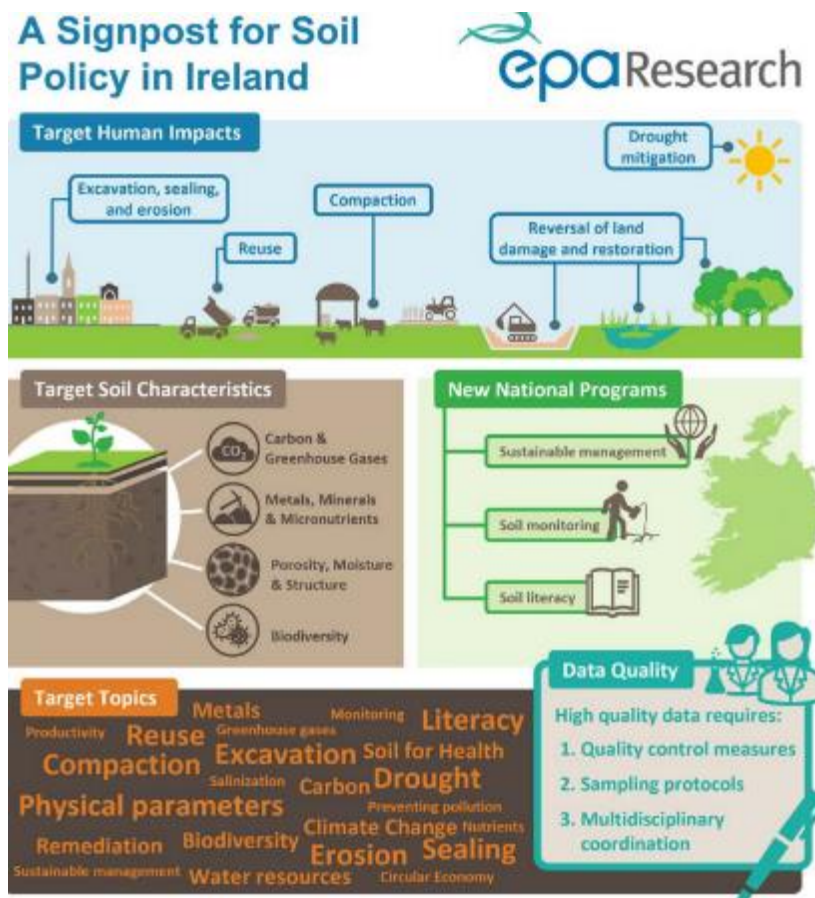
¹ A Signpost for Soil Policy in Ireland MUCKISOILS (Mapping Understanding and Current Knowledge of Irish Soils) (2021-NE-1029) EPA Research Evidence Synthesis Report UCC. Page 1.

FIGURE 4-10 HIGH VALUE NATURE FARMLAND



EPA research has identified significant research gaps relating to soil in Ireland in terms of themes identified under the EU Soil Strategy for 2030 and this research has identified a signpost for soil policy in Ireland, presented below in **Figure 4.11** which has particular relevant to climate action.

FIGURE 4-11 SIGNPOST FOR SOIL POLICY IN IRELAND



4.5.1 Key Geology and Soil Issues relating to the Climate Action Plan

Significant changes to soil condition can be brought about by the impacts of climate change including changes in air temperature, precipitation and extreme weather events – increased occurrences of summer droughts and increased winter rainfall. The potential impacts of these weather changes are likely to be experienced most significantly in relation to agriculture, peatland areas and forestry areas as well as increasing the potential for flood risk. Drier summers could also require necessary infrastructural investment to store winter rain and the drying out of soils in response to climate change could result in deterioration of soil quality. Increased rainfall could cause increased soil erosion and run off. Other significant issues include:

- Maintaining and enhancing soil function and its carbon storage role where possible, recognising the essential role soils, and particularly functioning peatlands can contribute to climate change mitigation and adaptation.
- Addressing extent of soil sealing, increased surface run off and variable permeability of lands in the plan area.
- Retention and creation of areas of greenfield in terms of open space, green infrastructure, permeability and biodiversity considerations.
- Because of the complex interrelationship between water, air and soil, declining soil quality can contribute to negative or declining water or air quality and function.
- Significant changes to soil condition can be brought about by the impacts of climate change including changes in air temperature, precipitation and extreme weather events - increased occurrence of summer droughts and increased winter rainfall. The drying out of soils in response to climate change could result in deterioration of soil quality. In wetter western areas, within which the Plan area lies, increased rainfall could cause increased soil erosion. Generally, a combination of dry summers and wet winters could also result in subsidence and soil heave.
- High nature value farming areas, and key agricultural lands should be considered. Where natural resources are required to support development, these should be carried out as efficiently as possible.

4.5.2 SEA Recommendations

- Supporting research and actions relating to carbon sequestration in soil
- Nature based solutions to provide co benefits including to retention and enhancement of soil quality and soil diversity
- Reuse of brownfield lands and support for circular economy through adaptive reuse of buildings and waste streams
- Support for sustainable landuse and in particular agricultural and forestry practices.

4.6 Water Resources including flood risk

The Water Framework Directive (WFD) requires the achievement of good status in all waters and that the status of water bodies does not deteriorate. Donegal contains a significant number (468) and range of waterbodies including: surface water bodies such as rivers (e.g. Finn, Leannan, Gweebarra, Swilly, Eske), lakes (e.g. Loughs Eske, Fern, Derg, Gartan, Glen and Nacung), transitional (e.g. Foyle, Swilly, Estuary, Gweedore, Gweebarra, Owenea, Inner Donegal Bay), coastal (e.g. Lough Swilly, Lough Foyle, Sheephaven, Trawenagh Bay, Gweebarra Bay, Loughros, McSwines and Inver Bay) and ground water bodies.

Importantly 138 of such water bodies have been identified as Protected Areas in accordance with the EU Water Framework Directive. A further important sub-group is comprised of those identified as having High Status Waterbody Objectives. The second cycle River Basin Management Plan, 2018 (*) identified high status environmental objectives for 310 waterbodies in the country including 26

in Donegal. Finally, it should also be noted that there are 85 shared waterbodies between Donegal and Northern Ireland.

Such Water bodies are subject to a range of environmental pressures including pollution from agriculture (e.g. farmyard wastes and land spreading of fertilisers), hydromorphology (i.e. physical modification to rivers banks, and shorelines), deficient municipal wastewater, forestry, domestic wastewater treatment systems, treatment plants, urban runoff, peat industries and quarries.

In particular the Water Framework Directive (WFD) aims at improving the aquatic environment and as such it applies to rivers, lakes, estuaries, coastal waters and groundwater. Under the WFD **Member states are required to achieve at least good status in all waters and must ensure that status does not deteriorate**, with a requirement for water quality management to be centred on river basin districts (RBDs).

WFD Catchments, Surface water quality and water bodies at risk of not meeting WFD objectives are shown in **Figures 4.12 to 4.14**.

FIGURE 4-12 WFD CATCHMENT

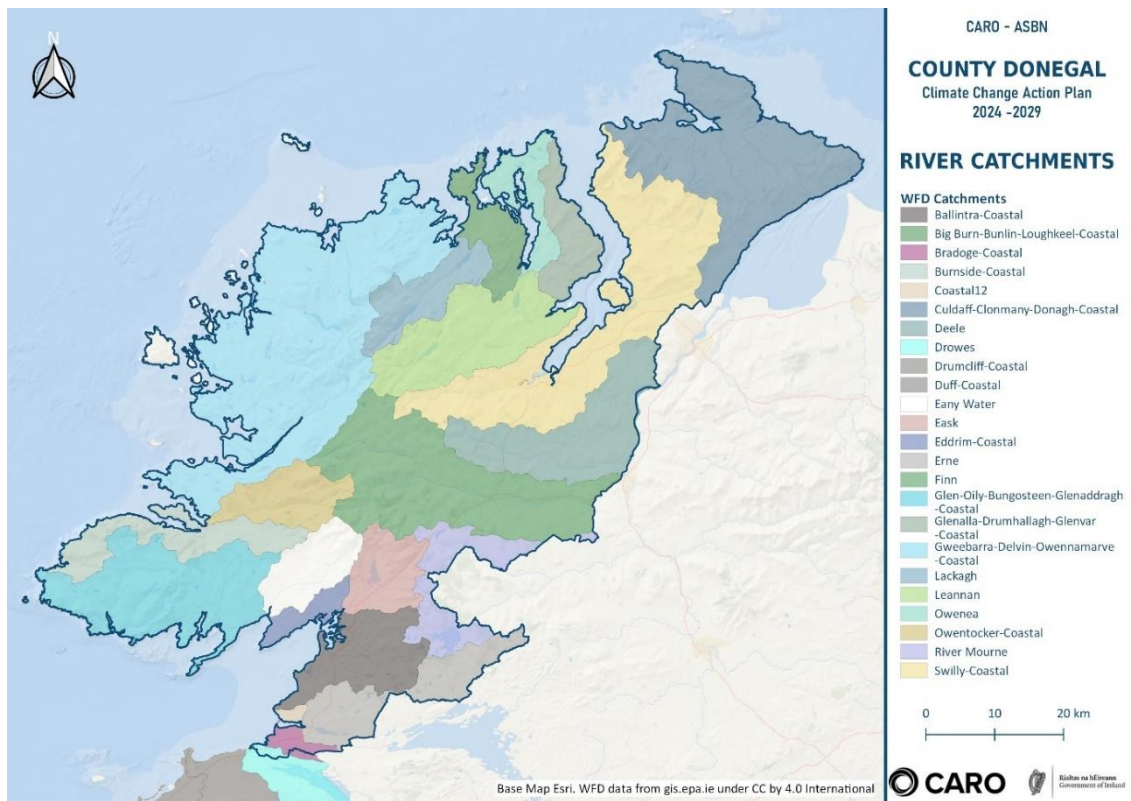


FIGURE 4-13 SURFACE WATER QUALITY

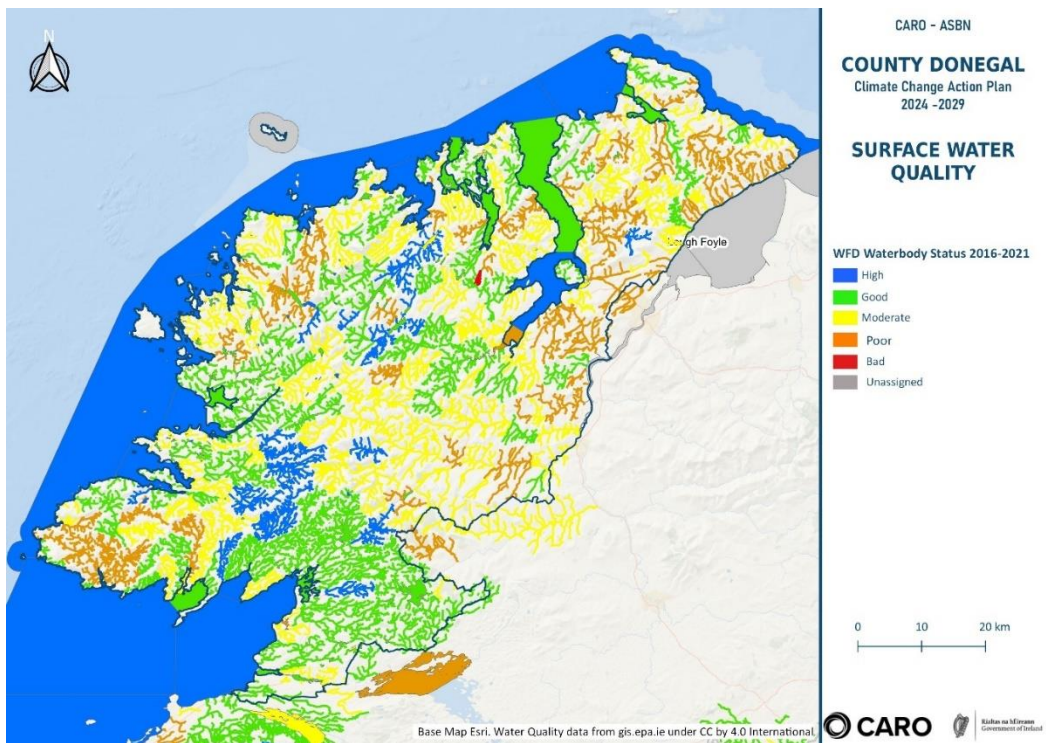
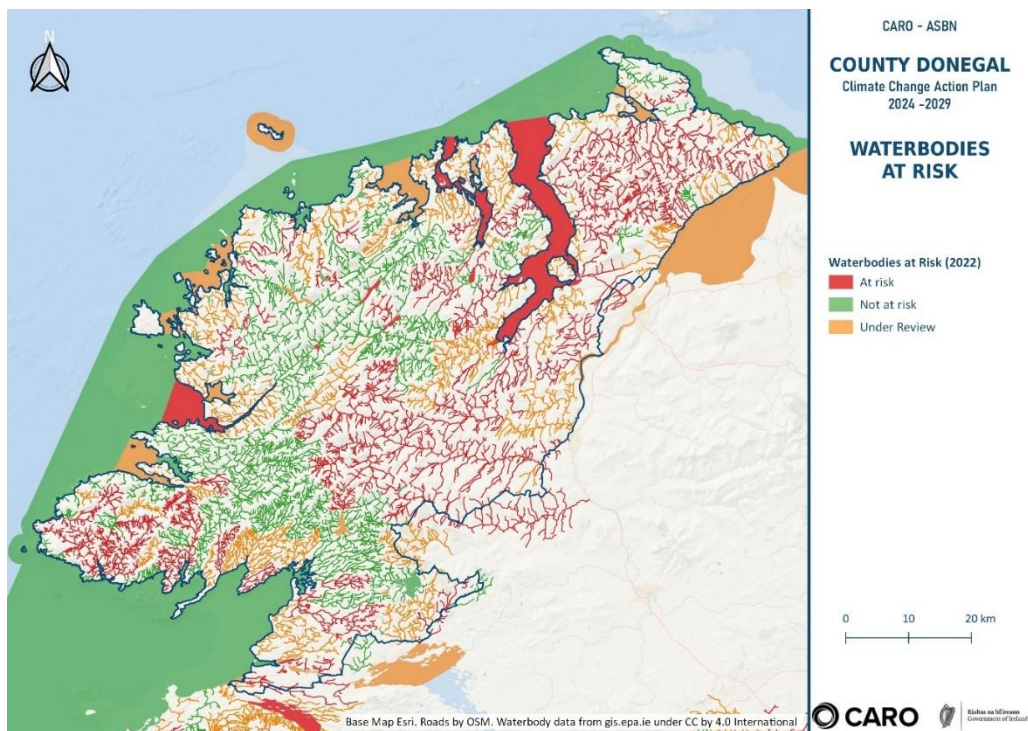


FIGURE 4-14 WATER BODIES AT RISK OF NOT MEETING WATER FRAMEWORK DIRECTIVE OBJECTIVES



4.6.1 Groundwater

Groundwater is a further significant resource and refers to water stored underground in saturated rock, sand, gravel, and soil. Surface and groundwater functions are closely related and form part of the hydrological cycle. The protection of groundwater from land uses is a critical consideration and groundwater vulnerability is becoming an important management tool. The entire island of Ireland has been designated as a Protected Area for Groundwater under the WFD. Groundwater is important as a drinking water supply as well as the supply to surface waters. In addition,

groundwater supplies surface waters. Groundwater is exposed to higher concentrations of pollutants that are retained in the layers of rock and soil. The exposure to pollutants lasts much longer as groundwater moves at a slower pace through the aquifer. The quality of our drinking water supply, fisheries and terrestrial based habitats is intrinsically linked with groundwater quality. The Geological Survey of Ireland (GSI) aquifer categories are based on their vulnerability to pollution, i.e. the ease at which it can enter the subsurface layers. The classification of extreme or high vulnerability means that the groundwater in these areas is very vulnerable to contamination due to hydrogeological and soil factors.

Surface and groundwater are inextricably linked therefore making it difficult to protect from contamination. The protection of groundwater from human activity is crucial as the resource is highly susceptible to contamination with long-term consequences for humans and the environment. Overall, the groundwater status within the County is primarily of good status.

4.6.2 Flooding

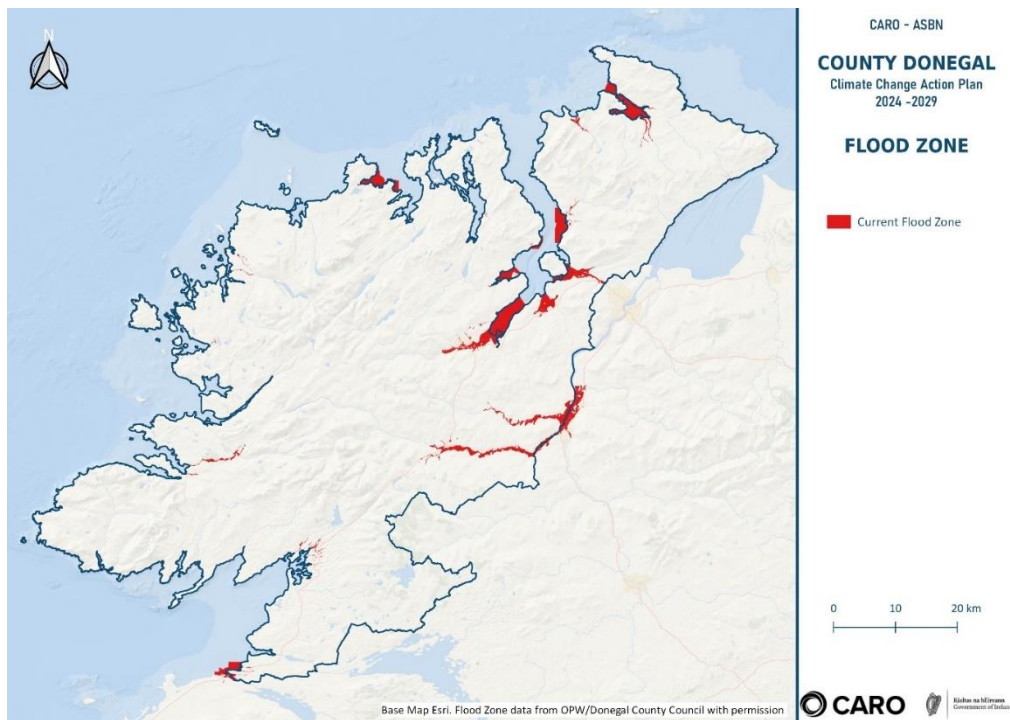
With climate change there are increased extreme weather events that contribute to flooding across a range of sources. In Donegal a number of extreme rainfall events have occurred over the past decade. In July 2013 Flooding of Letterkenny University Hospital which caused extensive damage including to the new accident and emergency department costing almost €40m in repairs. Flooding in Inishowen in 2017, wherein 63mm of rain was recorded at Malin Head within a six-hour period, caused localised landslides, the damage destruction of local bridges and roads and extensive damage to Swan Park Buncrana. Whilst it is difficult to attribute single events to climate change the frequency and intensity of such precipitation events are likely to increase with climate change.

Satellite indications that sea levels around Ireland are generally rising. However north eastern Ireland has also been rising over recent millennia due to post glacial isostatic uplift (i.e. the gradual rising of the land after the last ice age due to the melting of the overlying ice sheet) and this process may attenuate the relative sea level rise. However the most recent academic analysis¹ of the Malin Head sea level data indicates that the smoothed data trends '*could suggest that recent and near-future RSLC trends may be moving from the overall falling linear trend estimate, and that long-term trends may be moving into a positive (rising RSL) mode*'. In other words global climate related sea level rise may be starting to outstrip the abovementioned post glacial rebound and we may therefore be moving from a relative falling to a relative rising sea level trend in North Donegal.

In this regard the High End Future Scenario Flood Risk Mapping contained in the SFRA of the draft CDP 2024 -2023 indicates that many low lying coastal areas around Donegal would experience significant flooding (e.g. upper Lough Swilly and Lough Foyle, Sheepaven Bay, Ballyness Bay, Naran/Portnoo, and part of Donegal Bay).

¹ Julian D Oxford, Joanne Murdyand Robert Freel, 2006, Developing Constraints on the Relative Sea Level Curve for the North East of Ireland from the mid-holocene to the Present Day, Philosophical Transactions of The Royal Society 364, P.857-866

FIGURE 4-15 FLOOD ZONES



4.6.3 Key Water Issues related to the Climate Action Plan

The main pressures on water quality arise from a number of sources including climate change and landuse activities and these can interact to exacerbate existing pressures on water quality. An example of such impacts are shown below:

- High precipitation - Increased surface and sewer flooding (leading to mobilisation)
- Low precipitation - Low flows and water levels causing reduced dilution of pollutants
- High temperatures - Spread of / increased viability of pathogens
- High temperatures - Changes in species distribution and phenology, including native, non-native and invasive species
- High temperatures - Drying of peatland can result in a reduction of natural pollution attenuation and flood prevention, the leaching of ammonia, and peat slides (when followed by heavy precipitation)¹

Climate change poses risks to the delivery of water management objectives, but these risks depend on local catchment and water body conditions. Climate change affects the status of water bodies, and it affects the effectiveness of measures to manage the water environment and meet policy objectives. The future impact of climate change on the water environment and its management is uncertain. Impacts are dependent on changes in the duration of dry spells and frequency of 'flushing' events. The following risks are identified for water resources:

- Lower water levels and higher water temperature will reduce dissolved oxygen and lead to algal blooms and increased concentration of bacteria and other pollutants in the water.
- Increased precipitation increases the risk to groundwater quality from septic tank systems, agricultural, forestry and urban centre runoff.
- Saltwater intrusion on freshwater systems.
- River Basin Management plans will provide for more integrated management requirements for our water resources.

1

- Climate change threatens coastal areas, which are already stressed by human activity, pollution, invasive species and storms.
- Sea level rise threatens to erode and inundate coastal ecosystems and communities including unique ecosystems such as wetlands and machair (sand dunes).
- Warmer and more acidic oceans are likely to disrupt coastal and marine ecosystems on native species, algal blooms.
- Drier and warmer weather will see an increased in beach tourism and marine activities enhancing the blue economy
- Increase in fluvial, pluvial (urban storm water) and groundwater flood risk.
- Increasing risk to our coastal communities and assets.
- Threat of coastal squeeze of inter-tidal habitats where hard defenses exist.
- The development of flood forecasting systems in conjunction with community.

4.6.4 SEA Recommendations

- Landscape consideration of water through LAWPRO and catchment management
- Support for peatland restoration and nature based solutions through the catchment management to 'slow the flow' and increase overall resilience of the ecosystems.
- Research and assessment of risks and then supporting actions to achieving Water Framework Directive Objectives from climate change impacts.

4.7 Air Quality:

Poor air quality leads to more than 1300 premature deaths each year in Ireland. Ireland's two main pollutants of concern are: Fine particulate matter (PM2.5), where the dominant source is residential solid fuel burning. Nitrogen dioxide (NO₂), where the dominant source is transport.

The Air Quality Index of health¹ is based on hourly monitoring data from sites around Ireland and is based on measurements of five air pollutants all of which can harm health. The five pollutants are:

- Ozone gas
- Nitrogen dioxide gas
- Sulphur dioxide gas
- PM2.5 particles and PM 10 particles.

Consultations with the DCC Environmental Section through the CDP preparation, indicate that PM2.5 PM10 and SO₂ pollution is predominately related to the burning of fossil fuels, there were compliance issues with the smoky coal ban and that such pollution in Letterkenny was exacerbated by the local topographical conditions which creates a down slope temperature inversion on cold nights thereby trapping pollution.

Air quality and health is discussed under Section 4.3 Population and Human Health.

4.7.1 Climate Factors

Ireland must invest in structural and behavioural change to enable the transition to a climate neutral, climate-resilient country. These changes include the rapid decarbonisation of energy and transport and the adoption of sustainable food production, management and consumption systems. In December 2022, the government published Climate Action Plan 2023 (CAP23). It is the first updated plan since the introduction of the Climate Action and Low Carbon Development (Amendment) Act 2021. CAP23 aims to keep Ireland's emissions within its mandatory carbon budget and achieve the legally binding target of reducing emissions by 51% (from a 2018 baseline) by 2030.

Sectoral emissions ceilings refer to the total amount of greenhouse gas emissions that each sector of the economy is allowed to produce during a specific time period. In Ireland the sectoral emissions

¹ <http://www.epa.ie/air/quality/>

ceilings set out the maximum emissions that are permitted from each sector to ensure that Ireland remains within its carbon budgets. These sectors are:

- Electricity
- Transport
- Built Environment (Residential, Commercial & Public Sector)
- Industry & Other
- Agriculture
- Land Use, Land Use Change and Forestry (LULUCF)

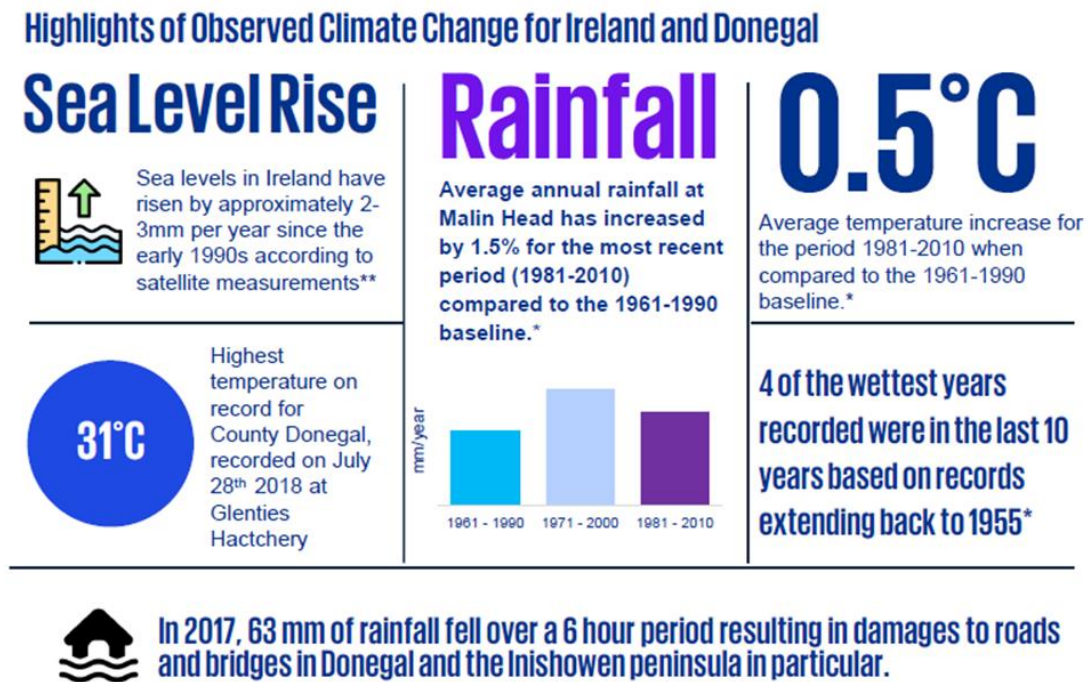
Table 4.1 provides a summary of Co. Donegal emissions in comparison to National emissions.

TABLE 4-1 COUNTY DONEGAL EMISSIONS, NATIONAL EMISSIONS AND AS % OF NATIONAL EMISSIONS

Emissions Category	County Donegal Emissions (ktCO₂e)	National Emissions¹ (ktCO₂e)
Agriculture	767 (39%)	22,134 (34%)
Commercial services	123 (6%)	4,618 (7%)
Industrial Processes	22 (1%)	2,267 (3%)
LULUCF	287 (15%)	6,657 (10%)
Manufacturing	59 (3%)	6,737 (10%)
Residential	419 (21%)	9,552 (15%)
Transport	255 (13%)	12,196 (19%)
Waste	37 (2%)	991 (2%)
TOTAL	1,970 (100%)	65,152 (100%)

Figure 4.16 presents the extreme climate events in County Donegal, from the CAP 2024.

FIGURE 4-16 EXTREME CLIMATE EVENTS IN CO DONEGAL



4.7.2 Key Air Quality and Climate Issues related to the Climate Action Plan

These have been identified as cross cutting impacts across all the SEA topics scoped into the SEA ER and are presented throughout the document.

Climate change is impacting ecosystems through changes in mean conditions and in climate variability, coupled with other associated changes such as increased ocean acidification and atmospheric carbon dioxide concentrations. It also interacts with other pressures on ecosystems, including degradation, defaunation and fragmentation. At the same time, ecosystems can also assist in the mitigation of, and adaptation to, climate change.

4.7.3 SEA recommendations

Actions in the CAP should be cross cutting and encompass all the sectors for emission reductions:

- Electricity
- Transport
- Built Environment (Residential, Commercial & Public Sector)
- Industry & Other
- Agriculture
- Land Use, Land Use Change and Forestry (LULUCF)

A focus on nature based solutions, the opportunity to provide co benefits for other environmental topics and strong evidence based approach to solutions is recommended.

EPA data is clear that reaching the 2030 target requires implementation of policies that deliver emission reductions across all sectors in the short term. Current decarbonisation actions are being outpaced by increased energy demand across the economy and dependence on fossil fuels for energy generation. A continued lack of delivery of large-scale practical actions to decarbonise activities in all sectors will see an exceedance of the first two carbon budgets.

4.8 Material Assets:

Access to an efficient transport network contributes to opportunities for all sectors of the population to access services, facilities and social networks that are necessary to meet daily needs. Ease of

accessibility enhances quality of life, promotes social inclusion, presents opportunities, and promotes human health through expansion of cycle and walking infrastructure.

4.8.1 Transport

As one of the key sectors for emission reduction, actions are urgently needed to promote other forms of transport including public transport, walking and cycling. Local Transport Plans are being prepared for Letterkenny that identify short to longer term actions across scale to make walking, cycling and public transport more viable and attractive.

4.8.2 Water services

An analysis of the latest Irish Water Wastewater Treatment Register for 2021 indicates that 29 settlements in Donegal have no spare Wastewater Treatment Capacity either as a result of an overloaded or the absence of a municipal wastewater treatment plant. Donegal also has a high and increasing reliance on individual domestic wastewater treatment systems in the county with 30,345 systems registered in the County in 2020¹ and many commercial developments in unsewered areas also rely on individual treatment systems. In particular the EPA Report on Domestic WasteWater Treatment System Inspections 2021 found that 36% of the 121 systems inspected in Donegal failed and that lack of maintenance and desludging were key factors.

There are 62 water treatment plants on the March 2021 Uisce Eireann water supply capacity register. In addition, there are over 600 private group water schemes utilising both public and privately sourced water. Irish Water is responsible for the monitoring of public water supplies and the local authorities are responsible for monitoring of group water schemes and regulated small private supplies. Based on these monitoring results the EPA produces annual public and private drinking water supply reports.

4.8.3 Energy

Donegal County Council are involved in a number of actions and projects that will increase efficiency and reduce greenhouse gas emissions. Donegal County Council's energy consumption (kWh) has reduced by 67% since 2015 within Public Service Centres and County House.

Various projects aimed at reducing energy consumption and emissions are either already in place or planned since 2020 including LED lighting upgrades, solar panel installation, cavity insulation, heating and thermal glazing upgrades.

Donegal's electricity transmission infrastructure consists of a main backbone of 110kv lines as shown on the map above. However there are no 220kv or 400kv lines located in the county.

4.8.4 Waste

The waste sector was responsible for 1.5% of Ireland's Greenhouse Gas emissions in 2018. The waste sector includes emission estimates from solid waste disposal, composting, waste incineration, open burning of waste and wastewater treatment and discharge. The largest of these sources is solid waste disposal on land (landfills) where CH₄ is the gas concerned. The Climate Action Plan includes specific targets combatting waste including reductions in household waste, landfill reliance, plastics and food waste. It also sets out ambitious recycling targets for municipal, plastic and packaging waste.

The Circular economy relates to a transition from carbon heavy, linear resource use. Circular economy systems:

- keep the added value in products for as long as possible and aim to eliminate waste.
- keep resources within the economy when a product has reached the end of its life, so that they can be productively used again and again and hence create further value.

¹ Source:

<https://www.cso.ie/en/releasesandpublications/er/dwwts/domesticwastewatertreatmentsystems2020>

A recent OECD study found that Ireland has a circular material use rate of 1.8 per cent, relative to an EU average of 12.8%. Systemic change is needed across all economic sectors to shift the focus to designing out and reducing waste and promoting reuse and recycling.

Food waste is a serious issue and in Ireland, approximately 800,000 tonnes of food waste is generated a year and the government has made a commitment under UN SDG 12.3 to reduce food waste by half by 2030. Food waste is also a source of Greenhouse Gas Emissions. The only way to reduce food waste is through its prevention, so the focus in the food use hierarchy must be on food waste prevention. The national food waste prevention programme sits within the EPA's Circular Economy Programme. Stop Food Waste is the consumer-facing national food waste prevention campaign. In relation to food waste prevention in the food supply chain, a revised Food Waste Charter launched in June 2023, with a call to action to businesses across the food supply chain to sign up to this voluntary agreement and pledge to measure, take target-based actions and report on food waste¹.

4.8.5 Key Material Asset issues relating to the Climate Action Plan

Flood events and possible consequent risk of subsidence may have a significant impact on critical infrastructure such as roads, rail, electricity, water and communications. This in turn would have a potential impact on productivity, economic confidence and general social wellbeing. Hotter summers could also place an additional stress on key infrastructure.

- High temperatures can result in Hot-weather-related changes in demand (e.g. higher daily and peak demand). Higher precipitation levels can result in more frequent water/wastewater asset flooding, asset loss and potential for environmental pollution as well as increased drawdown in the autumn/winter for flood capacity, leading to resource issues in the following spring/summer.
- Low precipitation - Reduced availability of water resources (surface water and groundwater sources)
- Increased storminess Business continuity impacts/ interruptions
- More frequent water/wastewater asset flooding, asset loss and potential for environmental pollution. Interruption to business continuity².
- Actions relating to circular economy, food waste and local food production.

4.8.6 SEA Recommendations

- Identify material assets most at risk from impacts of climate change.
- Increase resilience to effects of climate change on critical infrastructure.
- Energy transition and decarbonise the plan area to help meet targets.
- Energy efficiency measures and the decarbonising zone.
- Support for nature based solutions to avoid over engineering responses to impacts on material assets.

4.9 Cultural Heritage:

County Donegal has a rich archaeological heritage. Archaeology is the study of past societies through the material remains left by those societies and the evidence of their environment. Examples of archaeological monuments in Letterkenny include souterrains (stone passages), cashels, enclosures, and churches. Archaeology in Ireland is protected framework of International conventions and national laws and planning policies.

¹ EPA submission Re: Call for Expert Evidence - Climate Action Plan 2024 (EPAC-1023)

² Water Quality and Water Services Infrastructure Climate Change Sectoral Adaptation Plan

The architectural heritage of Donegal spans many centuries. This heritage reflects past lives and is an important record of the economic and social history of the county. Architectural heritage includes churches, courthouses, commercial and institutional buildings including banks and post offices, country houses, and also includes vernacular architecture. Within this range of building types are structures, streetscapes, village and town cores of such architectural heritage significance or special character that they are deemed worthy of protection either as individual elements which are listed on the Record of Protected Structures (RPS), as groups of buildings within Architectural Conservation Areas (ACAs) or as particular built heritage types that have been recorded as part of the unique identity of Donegal.

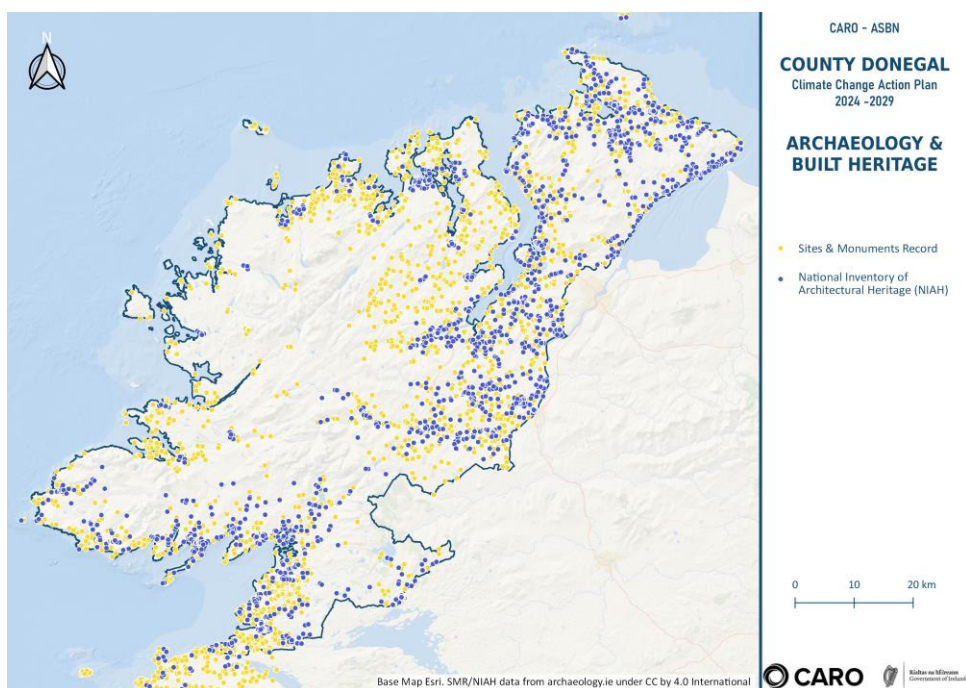
Industrial Heritage relates to sites, structures, mechanisms and artefacts associated with the industrial past, mainly of the 18th and 19th centuries and can extend further back to include archaeological sites. Examples of the industrial and maritime heritage of Donegal include structures associated with transportation such as railway stations and associated structures, historic bridges, lighthouses, coastguard stations, harbours, piers and quays. Architectural heritage related to transportation is also an important asset. Mill buildings and associated structures such as mill races, sluices and weirs also form part of this built heritage.

Vernacular built heritage forms a significant part of the built heritage of County Donegal, while many of these structures may not be listed on the Record of Protected Structures, their distinctive character contributes positively to the towns, villages and rural landscape of the county.

Figure 4.17 presents the sites and monuments record and the national inventory of architectural heritage data.

Finally local cultural features, both tangible and intangible are cumulatively very significant and contribute to sense of place. The Irish language and linguistic heritage is an intrinsic part of the cultural experience and life in the county.

FIGURE 4-17 ARCHAEOLOGICAL AND BUILT HERITAGE



4.9.1 Key Cultural Heritage issues relating to the Climate Action Plan

- The direct effects of climate change on heritage may be immediate or cumulative. Thus, damage from catastrophic events such as floods and storms are likely to increase at the same time as slow-onset environmental deterioration mechanisms. The way these impacts manifest will vary according to the sensitivity of the heritage and its exposure (Murphy and Ings, 2013). Exposure will alter with location and
- aspect, while sensitivity will be determined by the nature of the heritage resource (type, material) and its current condition.
- In addition, there will be indirect impacts related to societal responses to climate change in terms of both adaptation (e.g. changes in land use) and mitigation (e.g. the renovation or upgrading of historic buildings to reduce energy consumption).
- The Urban heat island effect is likely to act as a risk multiplier, meaning that buildings in urban centres will be propelled more rapidly towards damaging temperature thresholds for microbiological and/or chemical decay mechanisms. Higher temperatures can provide conditions for established pest species to spread and increase in number.
- The EU-funded Climate for Culture research project used climate modelling and whole-building simulation tools to predict how climate change will affect historic interiors in Europe. Western Atlantic Europe is likely to see an increase in biodeterioration due to mould and pests as higher temperatures provide more hospitable environments for both.
- Cultural landscapes such as parks and gardens and archaeological clusters are at risk from increasing pests and diseases as well as droughts, wildfires and windthrow. Alterations in natural landscape characteristics will also impact indirectly on material cultural heritage by disturbing the 'sense of place' and on intangible culture, which expresses landscape through art, poetry and music.
- The built heritage associated with the River, estuary and Lough Foyle are significant and range from early archaeological sites to world war II defensive structures; these can be affected by changing weather patterns.

4.9.2 SEA Recommendations

- Creative responses to engage on climate change through Creative Ireland support.
- Support for energy efficiency and adaptive reuse of existing buildings

4.10 Landscape and Seascape

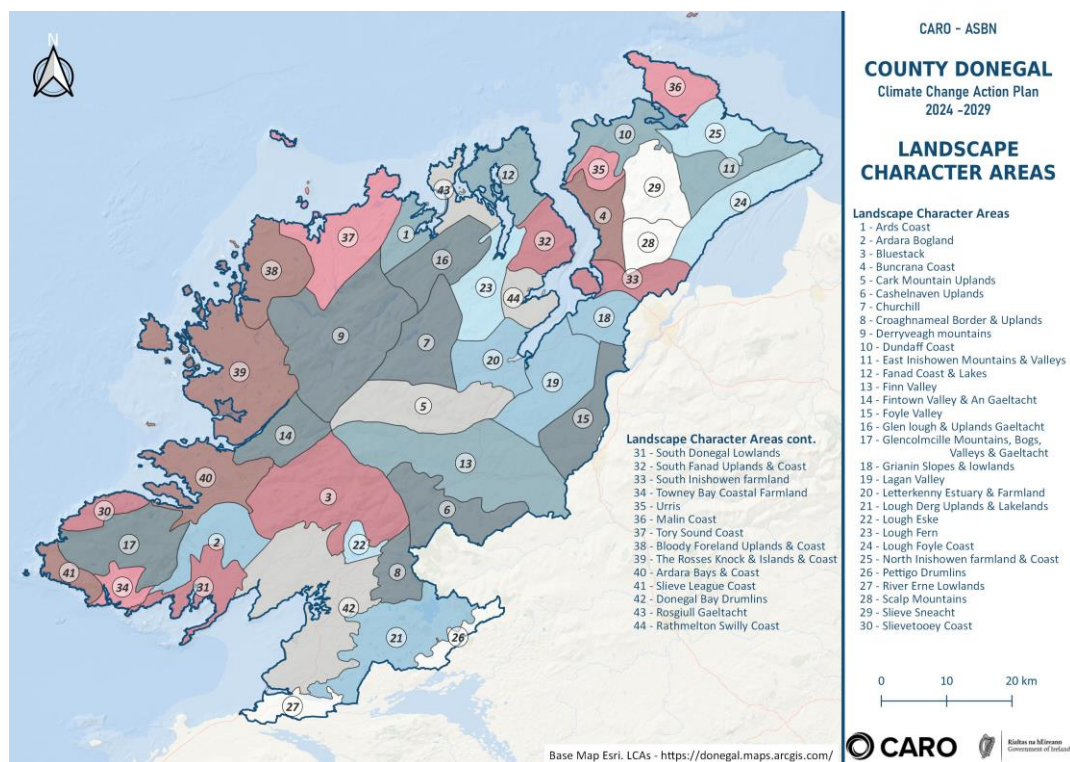
The landscape and seascape of the County varies greatly. A Landscape Character Assessment (LCA) for Donegal, containing landscape, seascape and settlement character assessments, was prepared and endorsed by Donegal County Council in 2016. The LCA provides an analysis, characterisation and narrative of the component parts of Donegal's landscape to provide an evidence base to assist in consistent decisions making to achieve a balance between the protection, management and planning of the landscape in line with the National Landscape Strategy for Ireland 2015-2025. See Figures 4.18 and 4.19 for County LCAs and SCAs.

The Regional LCA and SCA for Northern Ireland identifies three regional LCAs that adjoin Donegal these are:

- Foyle Valley LCA
- West Tyrone Hills and Valleys and
- Fermanagh Cavelands to the south.

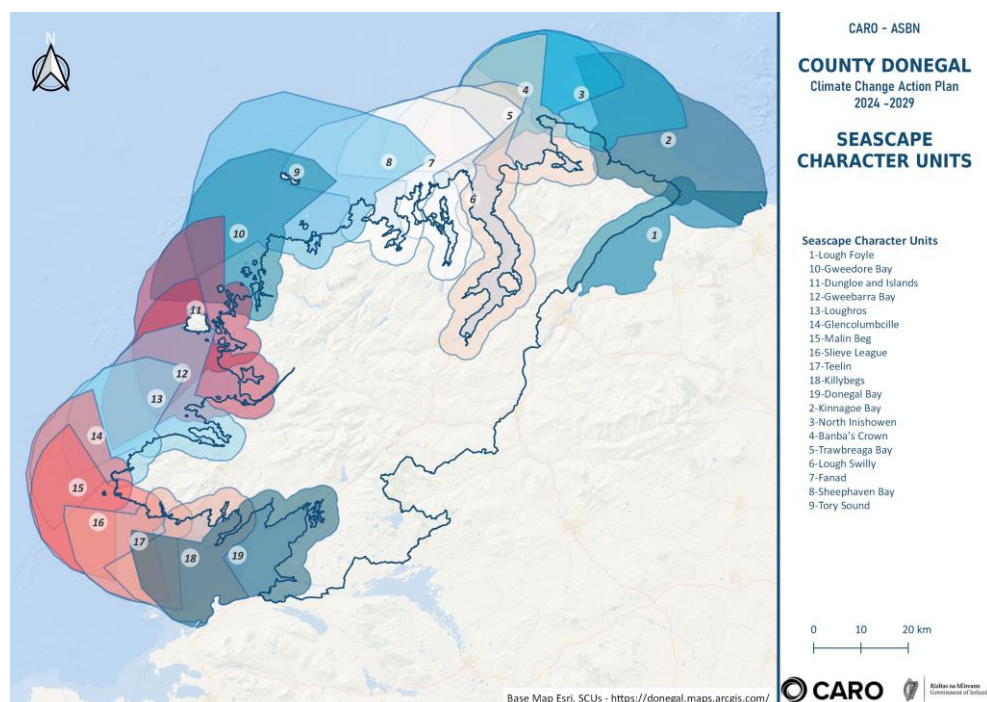
Seascape character areas identified are Foyle Estuary and Lough Foyle¹.

FIGURE 4-18 COUNTY LANDSCAPE CHARACTER AREAS



¹ NIEA Natural Environment Map Viewer (daera-ni.gov.uk)

FIGURE 4-19 COUNTY SEASCAPE CHARACTER UNITS



4.10.1 Key Landscape and Seascape issues relating to the Climate Action Plan

Landscape changes will result from climate change impacts on:

- soils and vegetation
- farming and forestry
- rivers and coasts
- hills and lowlands
- buildings

Landscapes will also be affected by adaptation and mitigation measures in response to climate change, for example renewable energy infrastructure, or interventions to address surface water management, modal shifts and flooding. There is also likely to be an increase in river flooding, erosion and slope instability. Semi-natural habitats are likely to change as species' favoured conditions move north. This could affect peat bogs, native woodlands and upland plant communities. There are likely to be direct effects on trees and forests reflecting changing patterns of rainfall, increases in storm damage and a potential increase in pests and disease. This could be most evident in agricultural areas, woodlands, designed landscapes and settlements. The pattern of snowfall and snow lie is likely to change.

Along low lying sections of coast, or in areas where flooding or land stability are already issues, changes in landscape character could be quite dramatic. However, for the most part these changes will be more gradual and subtle - modifying rather than transforming the landscape.

4.10.2 SEA recommendations

- Landscape response to climate adaptation where possible
- Integration of blue and green infrastructure
- Engagement and awareness raising around landscape scale effects and response to climate change.

4.11 Decarbonising Zone.

'A Decarbonisation Zone (DZ) is a spatial area identified by the local authority in which a range of climate mitigation, adaptation and biodiversity measures and action owners are identified to address

local low carbon energy, greenhouse gas emissions, and climate needs to contribute to national climate action targets.¹

In accordance with Action 165 of the National Climate Action Plan 2019, each local authority was required to 'identify and develop plans for one Decarbonising Zone' within their respective administrative area. An Action Plan for the DZs must be included in the Local Authority Climate Action Plans (LA CAP) as identified in the LACAP guidelines. As a component of the LACAP, the DZ is subject to the same statutory processes, timeframes, and other procedural requirements of making the LA Climate Action Plan. The DZs are a demonstration and test bed to focus on a range of climate mitigation, adaptation and biodiversity measures including the identification of projects and outcomes to assist in the delivery of the National Climate Objective.

Carndonagh and Falcarragh have been selected as DZ zones for County Donegal.

Tables 4.2 and 4.3 presents the boundaries and summary of key environmental considerations for each Decarbonising Zone and **Figures 4.20 and 4.21** show environmental sensitivity maps, this maps also include the ranking and data used to generate the overall environmental sensitivity map.

¹ DHLGH, Circular Letter LGSM01-2021, 10/02/21

TABLE 4-2 PROFILE OF CARNDONAGH DZ

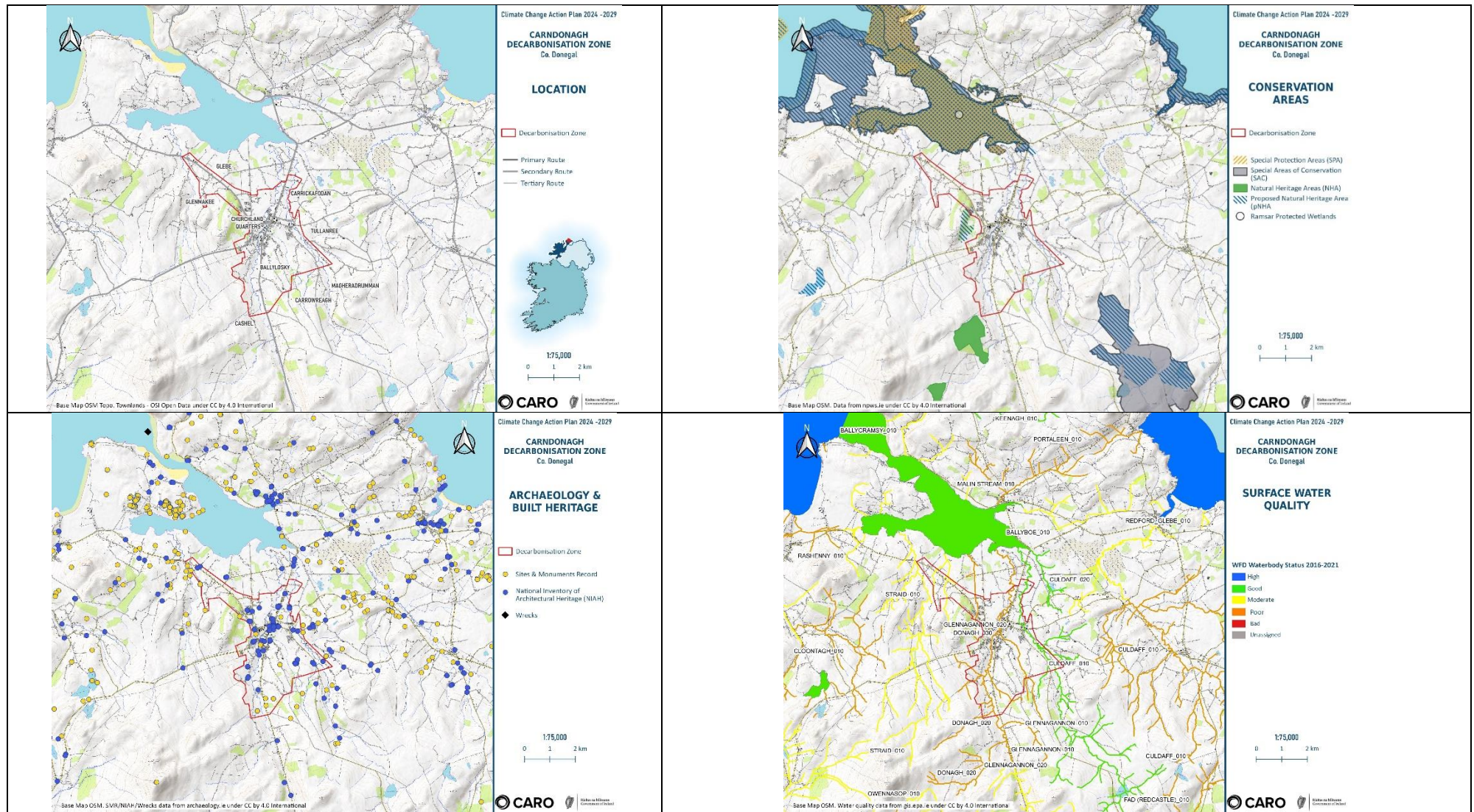


FIGURE 4-20 ENVIRONMENTAL SENSITIVITY MAP CARDONAGH

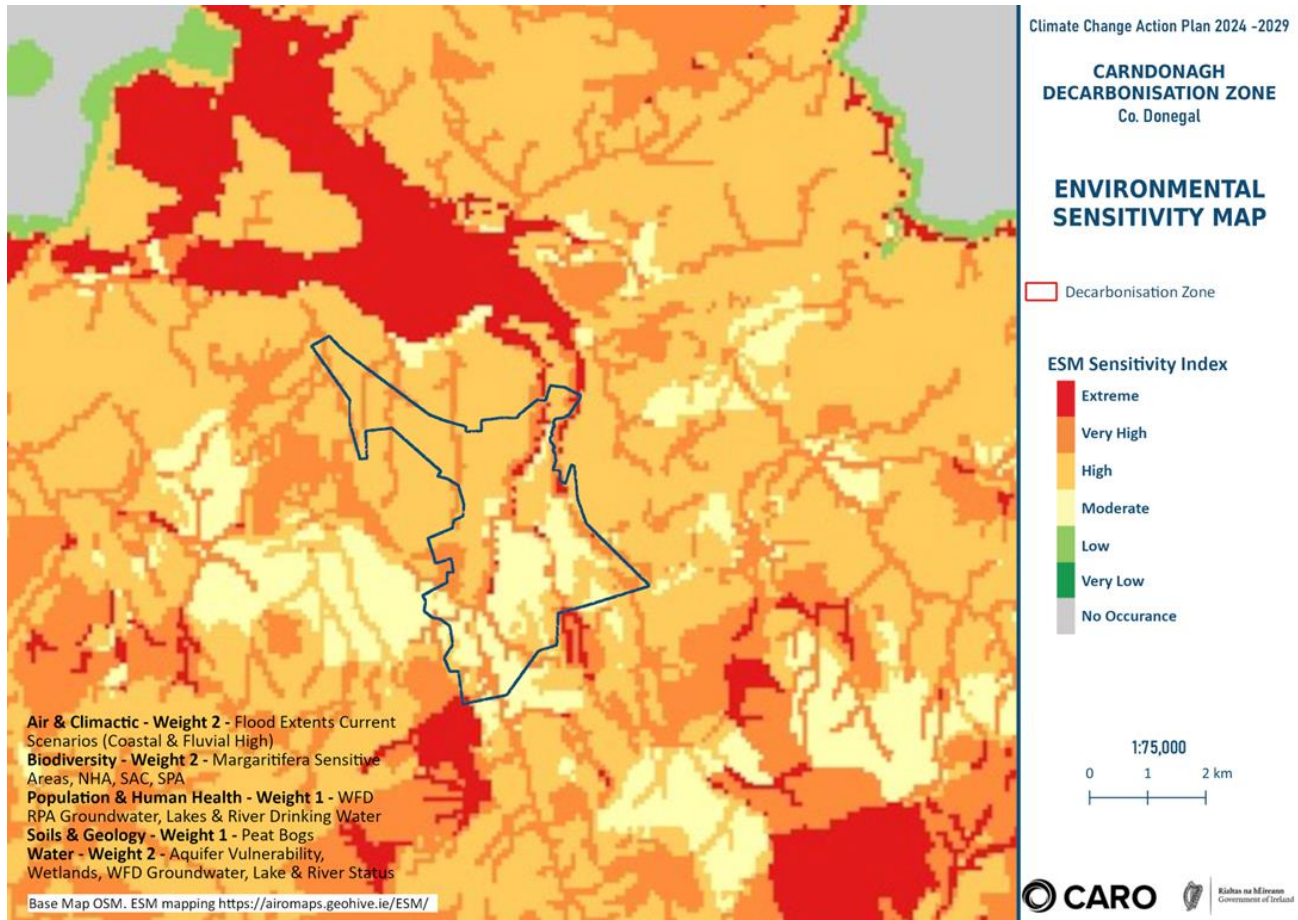


TABLE 4-3 PROFILE OF FALCARRAGH

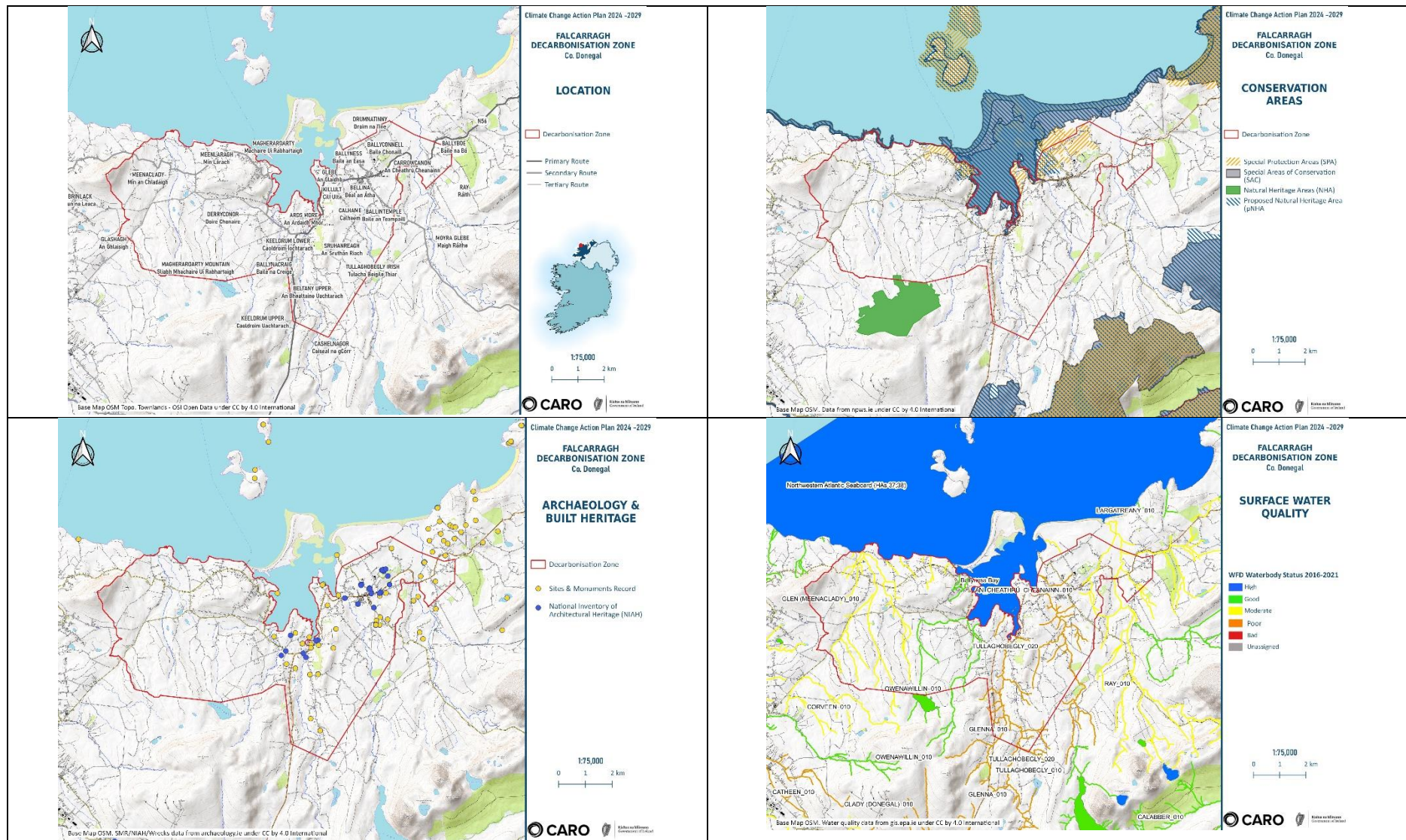
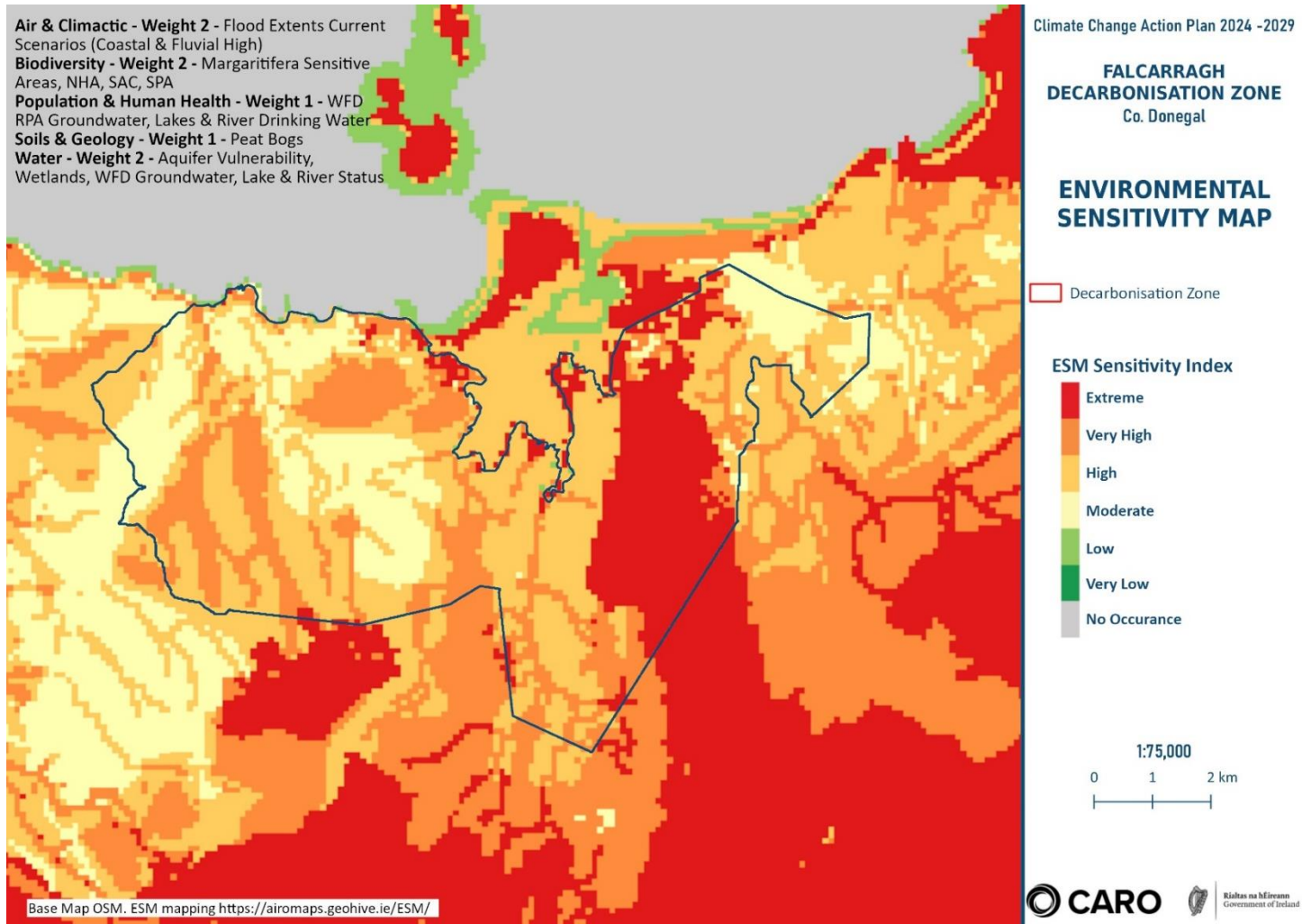


FIGURE 4-21 ENVIRONMENTAL SENSITIVITY MAP FALCARRAGH



4.12 Evolution of the plan area in the absence of the Climate Action Plan

The SEA legislation requires that consideration is given to the likely evolution of the current baseline where implementation of the CAP 2024-2029 does not take place. In the absence of the CAP the environment would evolve under the requirements of the current CDP and future Donegal County Development Plan 2024 to 2030.

Overall, this Climate Action Plan will be monitored and updated on an annual basis, with a review and revision every five years. Whilst the forthcoming CDP 2024 -2030 will remain the primary landuse framework for the county, in the absence of the CAP, the detailed actions accompanied by targets and indicators will not allow for the annual measuring of progress in this area. This presents a lost opportunity to implement changes at local authority, and community level across the county.

Key actions relating to nature based solutions which offer a suite of positive environmental effects would not be implemented with subsequent opportunities lost to green up infrastructure, promote food security and enhance tree planting. Other actions such as peatland rehabilitation may be omitted.

At county level, the local authority would be less likely to contribute to continue to the reduction in carbon emissions associated with their fleet, lighting and buildings. Promoting regional or inter county actions relating to public transport, walking and cycling may be less effective in the absence of this action plan.

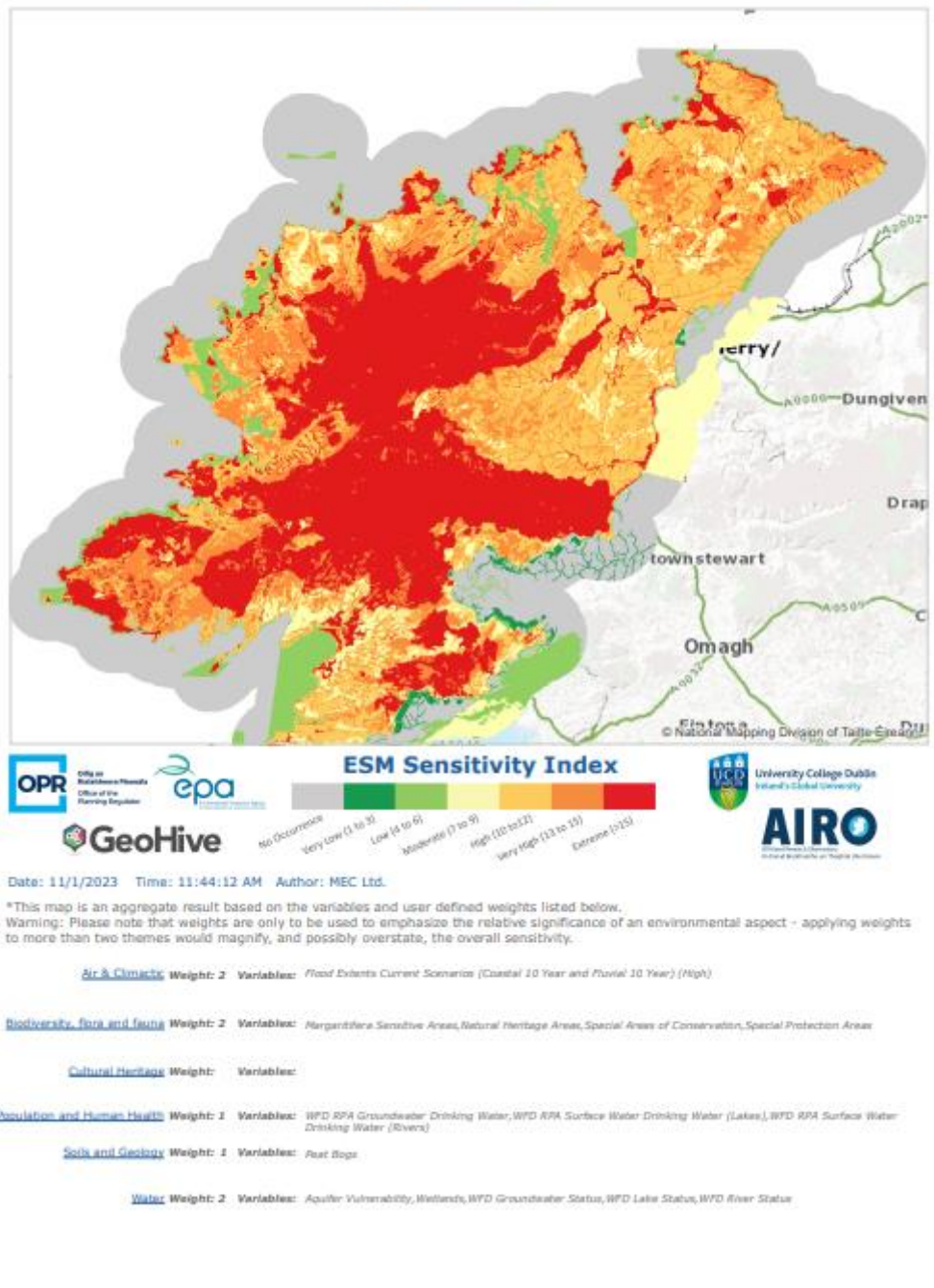
4.13 Environmental Sensitivity Mapping and inter-relationships

Environmental sensitivity mapping was prepared to inform the overall assessment of the CAP and to aggregate different environmental themes to help identify areas of greater and lesser environmental sensitivity. The key datasets used to inform this sensitivity mapping are shown in the ESM map in **Figure 4.22**. The environmental sensitivities map shows the level of overlap of environmental sensitivities and the range of physical environmental factors. It is important to note that the environmental factors not reflected on this map, e.g. those that are point specific, like protected structures, were not included as it was considered by their inclusion; it would potentially give a visual mis-representation of sensitivity when considering potential areas for future growth. Also, important to note is that the physical extent of the environmental sensitivity can extend beyond the defined area on the map, as the potential impact can be generated at a location remote from the mapped area. For example, a development outside of a designated site boundary does not mean that it cannot impact on it.

The mapping also highlights the interaction of key environmental parameters, whilst all environmental parameters interact with each other to an extent, key interactions as shown below relate to water, biodiversity and with climate change in particular. All the parameters interact with Population and Human Health.

FIGURE 4-22 ENVIRONMENTAL SENSITIVITY MAPPING

ESM Results



5 Strategic Environmental Objectives

5.1 Introduction

The purpose of the Strategic Environmental Objectives (SEO) is to ensure that the assessment process is transparent and robust, and that the CAP and SEA considers and addresses potential environmental effects. Draft SEOs have been set for each of the environmental topics outlined in **Table 5.1** and are from the SEA of the Draft Donegal County Development Plan 2024 -2030, with some new/amended SEOs proposed to reflect the CAP. These objectives in turn, will be supported by sub-criteria that will be used as a means to further refine the assessment for each environmental parameter scoped into the SEA. The results of this will be summarized in a table, called an evaluation matrix.

TABLE 5-1 STRATEGIC ENVIRONMENTAL OBJECTIVES

Strategic Environmental Objectives in the Draft Donegal County Development Plan 2023 -2030	
Climate Change	<ul style="list-style-type: none"> • Reduce Greenhouse Gas emissions in order to help mitigate climate change and meet our relevant International, European and National climate change obligations and targets including achieving the National Climate Objective. • Pursue development strategies which increase our ability to adapt to climate change and improve climate resilience • <i>Support the delivery of all national climate policy as appropriate to the county with the prioritisation and acceleration of evidence-based measures.</i>
Population and Human Health (PHH)	<ul style="list-style-type: none"> • Provide a development and infrastructural framework which encourages economic prosperity/employment growth, adequate housing provision, balanced population growth and a socially inclusive society with lower socio-economic disadvantage. • Safeguard the Donegal's citizens from environment-related pressures and risks to health and well-being including air, water and noise pollution, climate change and flooding. • Provide an environment increases the number of Donegal's citizens who are healthy at all stages of life, and promotes an active and high quality lifestyle in Donegal.
Biodiversity, Flora and Fauna (BFF)	<ul style="list-style-type: none"> • Conserve, protect, maintain, and where appropriate restore biodiversity, flora and fauna, natural habitats, and associated ecosystems particularly International and EU designated sites and protected species. • Ensure no adverse effects on the integrity of any European site, with regard to its qualifying interests, associated conservation status, structure and function. • Conserve and protect Nature Conservation sites of National Importance including NHAs, pNHAs National Parks, Nature Reserves, Wildfowl Reserves and species protected under National Legislation (e.g. Wildlife Act) • Safeguard biodiversity features in both designated sites and the wider environment which function as stepping stones for migration, dispersal and genetic exchange of wild species. • Conserve and restore biodiversity in the wider countryside. • Limit the spread, dispersal and growth of invasive species.
Soil and Geology (SG)	<ul style="list-style-type: none"> • Protect soils against pollution, and prevent degradation of the soil resource and associated ecosystem services • Safeguard areas of prime agricultural land and designated geological sites

Strategic Environmental Objectives in the Draft Donegal County Development Plan 2023 -2030	
Water (W)	<ul style="list-style-type: none"> • Protect, avoid deterioration of and, as appropriate, restore/enhance the quality of surface, ground and marine waters and their associated ecosystems including limiting the input of pollutants. • Ensure the sustainable use and protection of water resources. • Protect the coastal environment based on an ecosystem approach and taking ecological responsible coastal protection measures
Air and Noise (AN)	<ul style="list-style-type: none"> • Avoid, prevent and reduce air pollution and environmental noise in order to maintain and improve air quality and reduce harmful effects on human health and the environment. • Achieve compliance with relevant CAFÉ and WHO air quality limits and guidelines particularly in urban areas. • Achieve and maintain a 'Good' Air Quality Index for Health (AQIH) in Donegal
Material Assets	<ul style="list-style-type: none"> • To sustainably develop new and efficiently utilise and (where appropriate) protect existing material assets (e.g. residential, energy, transport, water, wastewater, community, telecoms and land) by promoting compact consolidated growth and efficient land use planning. • Promote the circular economy, reduce waste and increase energy efficiency. • Avoid inappropriate development in areas at risk of current or future flooding and prevent new developments increasing flood risk elsewhere.
Cultural Heritage (CH)	<ul style="list-style-type: none"> • <i>To support adaptive re-use of existing uninhabited and derelict structures where possible opposed to demolition and new build (to promote sustainability and reduce landfill).</i> • Conserve, enhance, ¹preserve and record architectural and archaeological heritage
Landscape	<ul style="list-style-type: none"> • To protect and manage the landscape (both rural and urban) in a sustainable manner. • Promote and enhance landscape and <i>seascape</i> character at county and local scale through sensitive siting and design

¹ Amended on foot of DAERA Scoping submission and replaces SEO in draft CDP which is very similar in intent.

6 Consideration of Alternatives

6.1 Introduction

The SEA Directive requires that reasonable alternatives be assessed to demonstrate how the preferred strategy performs against other forms of action. Alternatives must be developed, described and assessed within the SEA process, with the results presented in the Environmental Report.

- Alternative 1 - Prioritise reducing GHG emissions from largest GHG emitting sectors in the County to mitigate against climate change impacts.
- Alternative 2 - Adopt a multi-pronged approach and focus on a range of priority areas to mitigate against and adapt to climate change impacts.
- Alternative 3 -: Adopt a multipronged approach - that has a strong community engagement emphasis - and focus on a range of priority areas to mitigate against and adapt to climate change impacts.

A 'Do Nothing' or 'Do Minimum' alternative is not a reasonable alternative in this instance as the preparation of an effective LACAP is a statutory requirement under Section 16 of the Climate Act

6.2 Key environmental challenges at county scale

In addition to the environmental sensitivity map presented in Chapter 5, the following key environmental issues are relevant to the CAP and alternatives under consideration:

- Water Framework Directive and achievement of 'good' status
- Environment section identifying areas under pressure.
- European Sites, species and habitats under Wildlife Act and NHAs, pNHAs
- Monitoring of WFD.
- Climate Change – effects, mitigation, adaption and actions in the Climate Action Plan.
- Non designated hedgerows and treelines and their roles and significance for foraging and commuting for wildlife.
- Need to protect the remaining High Status waterbodies in the County. The decline in status connected to drainage and hydro morphological change.
- Local Authority Water Project Officer (LAWPRO) setting up work programme.
- Bathing Water Quality – longest coastline and higher number of designated bathing waters

6.2.1 Climate Hazard Impacts

The key results from the Climate Change impacts experienced to date in Donegal and future risks are summarised below in **Table 6.1**.




TABLE 6-1 CLIMATE CHANGE IMPACTS EXPERIENCE IN DONEGAL



- Recent experiences of **river** and **pluvial flooding** events (e.g., 2017, 2018, 2019 and 2022) have resulted in damages to homes and buildings (e.g. Elm Park, Bunrana), and infrastructure, disruption of transport networks (e.g. Road networks and Sli na Sliante path), and impacts on business (e.g. New Row in Donegal town) and local economy. Projected increases in the frequency of extreme precipitation events will result in increased surface water and riverine flood risk for County Donegal.



- **Coastal erosion** and **coastal flooding** already pose a significant risk for County Donegal and have resulted in temporary inundation of buildings, loss of transport infrastructure, damage to water treatment and wastewater infrastructure. Rising sea levels will increase the rate of coastal erosion and frequency of coastal inundation, resulting in an increased coastal erosion and flood risk for County Donegal.

- 
 • **Severe windstorms** are currently experienced on a frequent basis in County Donegal and result in wide-ranging impacts, including disruption to energy supply, communications infrastructure and transport networks. Projections indicate no significant change to this frequency.
- 
 • County Donegal experienced both a **heatwave** and **drought** in 2018, with heatwaves also recorded in 2021 and 2022. These events resulted in damage to road surfaces (e.g. boiling tar in Killyclug), increased demand placed on water resources (hosepipe ban) and recreational areas and detrimental impacts on freshwater quality and fish populations. Projected increases in the frequency of heatwaves and drought conditions will mean that events currently experienced on an infrequent basis will become more frequent.
- 
 • Recent experiences of **cold spells** and **heavy snowfall** events in 2018 (e.g. Storm Emma) demonstrated the wide range of impacts for County Donegal. These included, amongst others, increase in the frequency of trips and falls, disruption to road networks, power outages and impacts on water resources and on business and local economy. Projected increases in average temperature and decreases in the frequency of snowfall indicate a decrease in the frequency of cold spells, heavy snowfall, and their associated impacts

6.2.2 Assessment of Consideration of Alternatives

Table 6.1 presents the criteria used in the assessment matrix and the SEOs that the alternatives are assessed against are those presented in the previous Chapter Five SEOs. **Table 6.2** presents the evaluation of the alternatives.

TABLE 6-2 ASSESSMENT CRITERIA

(+)	reflects a potential positive effect
(-)	reflects a potential negative effect
(+/-)	reflects that positive and negative effects are likely or that in the absence of further detail the effect is unclear
(0)	reflects a neutral or uncertain effect

TABLE 6-3 EVALUATION OF ALTERNATIVES

		Alternative 1 Prioritise reducing GHG emissions from largest GHG emitting sectors in the County	Alternative 2 Adopt a multi-pronged approach and focus on a range of priority areas t	Alternative 3 Adopt a multipronged approach - that has a strong community engagement emphasis -	Comment
Climate Change	<p><i>CC1: Reduce Greenhouse Gas emissions in order to help mitigate climate change and meet our relevant International, European and National climate change obligations and targets including achieving the National Climate Objective.</i></p> <p><i>CC2:Pursue development strategies which increase our ability to adapt to climate change and improve climate resilience</i></p> <p><i>CC3:Support the delivery of all national climate policy as appropriate to the county with the prioritisation and acceleration of evidence-based measures.</i></p>	+/-	+/-	(+)	<p>For Donegal the largest emissions are derived from Agricultural (39%), Residential (21%),Landuse (21%) and Transport (13%). Under Alternative 1 the CAP would prioritise these sectors above others. However, whilst the CAP can interact and support agricultural activities it is not the main policy or funding framework this is via the Common Agricultural Policy. Whilst the focus LUCUF can be partly driven by local authorities.</p> <p>Alternative 2 and 3 provide the most holistic approach to climate action with Alt 3 focus on community engagement performing better as it increases awareness and ownership of climate actions via local authority framework.</p>

		Alternative 1 Prioritise reducing GHG emissions from largest GHG emitting sectors in the County	Alternative 2 Adopt a multi-pronged approach and focus on a range of priority areas t	Alternative 3 Adopt a multipronged approach - that has a strong community engagement emphasis -	Comment
Population and Human Health (PHH)	<p><i>PHH1: Provide a development and infrastructural framework which encourages economic prosperity/employment growth, adequate housing provision, balanced population growth and a socially inclusive society with lower socio-economic disadvantage.</i></p> <p><i>PHH2: Safeguard the Donegal's citizens from environment-related pressures and risks to health and well-being including air, water and noise pollution, climate change and flooding.</i></p> <p><i>PHH3: Provide an environment increases the number of Donegal's citizens who are healthy at all stages of life, and promotes an active and high quality lifestyle in Donegal</i></p>	+/-	+/-	(+)	As recent research ¹ has demonstrated, 79% of respondents in the County are worried about climate change and support action with concern about practicality of actions. Environmental issues can be cross cutting with similar levels of concern about water quality issues in local areas (82%). Therefore Alt 1 and Alt 2 present a more top down focus driven under Alt 1 by national policies around agriculture and under Alt 2 by a weaker focus on community scale input and responses. In this scenario, Alt3 performs the best and as it aligns closely with the Donegal CDP and supporting plans including LAPS that can include Local Transport Plans and more broadly active travel measures can be brought forward that can generate cumulatively positive effects.
Biodiversity, Flora and Fauna (BFF)	BFF1: Conserve, protect, maintain, and where appropriate restore biodiversity, flora and fauna, natural habitats, and associated ecosystems particularly International	+/-	(+)	(+)	Alt 1 with key focus on agriculture, landuse and residential may not provide as many co benefits as under Alt 2 and Alt3 with less focus on nature based solutions and potential positive interactions across the BFF SEOs. Alt 2 and Alt 3 perform well but again Alt 3 performs more strongly in terms of priority

¹ EPA 2023.

	Alternative 1 Prioritise reducing GHG emissions from largest GHG emitting sectors in the County	Alternative 2 Adopt a multi-pronged approach and focus on a range of priority areas t	Alternative 3 Adopt a multipronged approach - that has a strong community engagement emphasis -	Comment
<p>and EU designated sites and protected species.</p> <p>BFF2:Ensure no adverse effects on the integrity of any European site, with regard to its qualifying interests, associated conservation status, structure and function.</p> <p>BFF3:Conserve and protect Nature Conservation sites of National Importance including NHAs, pNHAs National Parks, Nature Reserves, Wildfowl Reserves and species protected under National Legislation (e.g. Wildlife Act)</p> <p>BFF4:Safeguard biodiversity features in both designated sites and the wider environment which function as stepping stones for migration, dispersal and genetic exchange of wild species.</p> <p>BFF5:Conserve and restore biodiversity in the wider countryside.</p> <p>BFF6:Limit the spread, dispersal and growth of invasive species</p>				<p>areas for mitigation and adaption with stronger community engagement element.</p>

		Alternative 1 Prioritise reducing GHG emissions from largest GHG emitting sectors in the County	Alternative 2 Adopt a multi-pronged approach and focus on a range of priority areas t	Alternative 3 Adopt a multipronged approach - that has a strong community engagement emphasis -	Comment
Soil and Geology (SG)	SG1:Protect soils against pollution, and prevent degradation of the soil resource and associated ecosystem services SG2:Safeguard areas of prime agricultural land and designated geological sites	0/-	(+)	(+)	Alt 1 would include priority for residential as the second largest sector for county emissions and may contribute to achieving SG 1 in particular. However, the CDP and LAPS also have strong supporting policy objectives around brownfield and reuse so this could be addressed through all Alternatives. Again a multi pronged approach is identified as more consistent with SG SEOS as it is more holistic in scope with greater potential for positive interactions and co benefits. Alt 3 with community engagement also increase scope for interventions around Just Transition and potential projects relating to peatland restoration and raising water table levels.
Water (W)	W1: Protect, avoid deterioration of and, as appropriate, restore/enhance the quality of surface, ground and marine waters and their associated ecosystems including limiting the input of pollutants. W2: Ensure the sustainable use and protection of water resources. W3:Protect the coastal environment based on an ecosystem approach and taking ecological responsible coastal protection measures	0/-	(+)	(+)	Greater focus and support through agricultural and landuse sectors under Alt 1 would be positive for water quality issues through actions such as increased riparian buffers etc. However, this is driven at larger scale by national policy including the Common Agricultural Policy and at more county/catchment level programmes. Whilst Donegal CC can support these they are not the driving agent and under this scenario the co benefits around nature based solutions are less supported as is the more holistic approach under Alt 2 and 3. Under all scenarios, application of CDP and LAP policies and priority actions under the

		Alternative 1 Prioritise reducing GHG emissions from largest GHG emitting sectors in the County	Alternative 2 Adopt a multi-pronged approach and focus on a range of priority areas t	Alternative 3 Adopt a multipronged approach - that has a strong community engagement emphasis -	Comment
					Draft River Basin Management Plan would apply.
Air and Noise (AN)	AN1: Avoid, prevent and reduce air pollution and environmental noise in order to maintain and improve air quality and reduce harmful effects on human health and the environment. AN2: Achieve compliance with relevant CAFÉ and WHO air quality limits and guidelines particularly in urban areas. AN3: Achieve and maintain a 'Good' Air Quality Index for Health (AQIH) in Donegal	0/-	(+)	(+)	Alt 2 and 3 perform more strongly with AQ SEOs in particular around recognising ecosystems and nature based solutions via multi-pronged approach. Re air quality and health, this is very influenced by transport and fuel for heating and would not be maximised under Alt 1.
Material Assets	MA1:To sustainably develop new and efficiently utilise and (where appropriate) protect existing material assets (e.g. residential, energy, transport, water, wastewater, community, telecoms and land) by promoting compact consolidated growth and efficient land use planning. MA2: Promote the circular economy, reduce waste and increase energy efficiency. MA3:Avoid inappropriate development in areas at risk	-	(+)	(+)	Alt 1 performs the weakest for Material Assets SEOS although for all three, the CDP and LAP policies would apply for landuse projects. As Lat 2 and 3 include multi pronged approaches, measures under these scenarios are more broad and holistic including water conservation, circular economy and community planning.

		Alternative 1 Prioritise reducing GHG emissions from largest GHG emitting sectors in the County	Alternative 2 Adopt a multi-pronged approach and focus on a range of priority areas t	Alternative 3 Adopt a multipronged approach - that has a strong community engagement emphasis -	Comment
	of current or future flooding and prevent new developments increasing flood risk elsewhere.				
Cultural Heritage (CH)	CH1:To support adaptive re-use of existing uninhabited and derelict structures where possible opposed to demolition and new build (to promote sustainability and reduce landfill). CH2:Conserve, enhance, preserve and record architectural and archaeological heritage	0/-	(+)	(+)	Alt 1 would include priority for residential as the third largest sector for county emissions and may contribute to achieving CH 1 in particular. However, the CDP and LAPS also have strong supporting policy objectives around reuse so this could be addressed through all Alternatives. Again a multi pronged approach is identified as more consistent with CH SEOS as it is more holistic in scope with greater potential for positive interactions and co benefits. Alt 3 with community engagement also increase scope for interventions around renovation of existing buildings and local cultural heritage including via Creative Ireland support measures.
Landscape	L1:To protect and manage the landscape (both rural and urban) in a sustainable manner. L2:Promote and enhance landscape and seascape character at county and local scale through sensitive siting and design	-	(+)	(+)	Alt1 would perform well for L SEOS, especially L1 in terms of landscape scale response and the primary emissions from agriculture, landuse in the County. As under other SEOS, however the potential for the County Council to drive this is limited. Therefore, Alt 2 and 3 perform better given the multiple elements that contribute to landscape and seascape including soil, geology, population , cultural heritage, biodiversity, therefore the multi-pronged approach is more robust for L SEOS

	Alternative 1 Prioritise reducing GHG emissions from largest GHG emitting sectors in the County	Alternative 2 Adopt a multi-pronged approach and focus on a range of priority areas t	Alternative 3 Adopt a multipronged approach - that has a strong community engagement emphasis -	Comment
				and the focus on community action reinforces the environmental performance under Alt 2.

6.3 Preferred alternative and reason for selection

Following the above evaluation and assessment, the preferred strategic alternative for the approach to the CAP 2024 -2029 Alternative 3. This is based on the following:

In terms of all SEOs, Alternative 3 is identified as creating most positive interactions as it provides greater environmental performance overall and also allows for a greater environmental gains, than may be achieved through Alternatives 2 and 1. In addition, the multi- faceted approach contributes to greater co-benefits by providing for a wider range of environmental effects particularly around nature based solutions and resource management. The inclusion of measures for citizen engagement and awareness raising through the CAP option is also positive for a number of SEOs.

7 Assessment of likely significant effects

The purpose of this section of the Environmental Report is to predict and evaluate as far as possible the environmental effects of implementing the draft CAP. Having established the environmental baseline and the key environmental sensitivities for the strategy area in Chapter 4, and the Strategic Environmental Objectives in Chapter 5, an assessment for any potential environmental effects from implementing the draft Strategy can be undertaken.

Two elements of assessment have been undertaken which include:

1. An assessment of the draft actions (See **Annex A**);
2. An assessment of cumulative and in-combination effects (See **section 7.2**).

The assessment process has been undertaken using matrix assessments which reflect ratings in relation to potential significant effects on the environment as a result of implementation. Where there is a combination of these symbols (0/+ or 0/-) this indicates that any effect maybe neutral or positive, or neutral or negative depending on how the objective is delivered. Where negative effects are identified mitigation measures are recommended to either include new objectives, or to amend or include additional text within the Plan objectives. In terms of impacts the following definitions are used:

- Profound: An impact which obliterates sensitive characteristics.
- Moderate: An impact that alters the character of the environment in a manner that is consistent with existing and emerging trends.
- Slight: An impact which causes noticeable changes in the character of the environment without affecting its sensitivities.
- Imperceptible: An impact capable of measurement but without noticeable consequences.

Thirdly the potential duration of identifiable impacts is discussed. The following terms are used:

- Short: Impact lasting one to seven years.
- Medium: Impact lasting seven to fifteen years.
- Long term: Impact lasting fifteen to sixty years.
- Permanent: Impact lasting over sixty years.
- Temporary Impact lasting for one year or less.

7.1 Summary of significant effects

TABLE 7-1 SUMMARY OF SIGNIFICANT EFFECTS

Topic	Discussion
Population and human health	<p>Many of the actions identified in the CAP give rise to medium to term positive effects on population and human health both by responding and adapting to the impacts of climate change, and also reducing greenhouse gas emissions through a series of measures.</p> <p>Reflecting the opportunity for co-benefits of the CAP, measures around energy efficiency and retrofitting plus renewable energy opportunities can help address fuel poverty in relation to vulnerable individuals as well as the chance to reuse energy from within the local area, for example <i>BE3.2: Work towards new buildings (dwellings, commercial and public) are designed and constructed to Nearly Zero Energy Building (NZE) standard by 2025 and Zero Emission Building (ZEB) standard by 2030 and BE 4.4 Support local community-based renewable energy projects and new micro-generation and small-scale generation renewable energy projects.</i></p> <p>Reflecting key objectives in the Donegal Draft CDP 2024 to 2030, the CAP will support and encourage a modal shift in transport by expanding the walking and cycling network, making walking and cycling safer and encouraging and promoting greater engagement and awareness raising in relation to walking and cycling and promoting behavioural change; for example, see <i>TR2 Promote and deliver active travel policies and projects within the County to facilitate greater walking and cycling.</i></p> <p>More strategically and at scale actions that support rail connectivity <i>TR3 Support the delivery of rail connectivity and the enhancement of other public transport options to encourage modal shift from private car transport</i> could give rise to significant, long term positive interactions on population and human health and could, depending on the route alignment provide for rail connectivity between Donegal adjacent County Tyrone in line with recommendations from the All Ireland Rail Review (2023).</p> <p>Addressing GHG emissions from the Transport and Residential sectors as the above actions do have accompanying positive impacts in terms of local air quality and therefore on human health. In addition, the impact of particulate matter and other airborne particles extend beyond human health to the entire terrestrial and aquatic environment (Tositti et al., 2018¹).</p> <p>In the absence of mitigation, whilst the Donegal current CDP and forthcoming CDP 2024 -2030 policies will apply there could be adverse environmental effects around capacity building, training, embedding nature based solutions that can provide co benefits across many environmental resources, subject to robust assessment and design. These could result in localised and synergistic impacts on parameters including cultural heritage, landscape that may affect population and human health. Equally grey infrastructure measures particularly at sensitive locations such as coastal habitats can impact sense of place and could generate impacts transboundary in nature.</p>

¹ Particulate pollution and its toxicity to fish: An overview ,Gokul, Ramesh Kumar, Prema, Arun, Paulraj, Faggio. Comparative Biochemistry and Physiology Part C Vol:270. 2023.

Topic	Discussion
	<p>Encouraging and accessing local knowledge and capacity is provided for within the CAP but additional recommendations are made in this regard, (see Action CR2 Increase climate literacy across the community through education and raising awareness on climate action and nature based solutions that provide co benefits for human health, water and wildlife').</p>
<p>Biodiversity, Flora and Fauna</p>	<p>The promotion of a peatland rehabilitation strengthen overall protection of biodiversity resources and the Biodiversity SEOS. <i>NE1.7 Support national and regional initiatives in the rehabilitation of peatland as a carbon sink and provide habitat for biodiversity.</i></p> <p>Actions in particular those under the Natural Environment Theme (Actions including 1.4, and actions under NE 4 Nature Based solutions) are identified as positive for BFF as well as generating positive, synergistic and medium to long term positive effects on other SEOs namely soil, water, air, climate change with indirect positive effects and direct positive effects on population and human health and material assets. For a number of these actions, mitigation is recommended to further support and strengthen protection of habitats and species for these actions.</p> <p><i>NE 1.1: Prepare and begin to implement a Biodiversity Action Plan (including a Pollinator Plan) for the County to protect and enhance local biodiversity including climate-resilient measures -this is recommended for mitigation to strengthen ecological considerations and provide for co-benefits to other resources.</i></p> <p>For a number of transport related actions, the implementation of these could conceivably result in the support of new infrastructure that in turn could have potential to result in direct impacts such as habitat loss or habitat degradation or indirect impacts such as habitat and species disturbance and changes in key indicators of conservation status such as water quality. This could give rise to local to transboundary effects in the absence of mitigation. Actions identified include: <i>TR2.3 Deliver and maintain multiple Active Travel projects in the County.</i></p> <p>For renewable energy including production and transmission (onshore and offshore), the majority of past examples of such developments have been situated outside of European Sites. Notwithstanding this such developments can be connected to European Sites via impact pathways. Most commonly such impact pathways are mediated by hydrological pathways and the potential for new renewable natural resource developments to result in the emission of poor quality and inadequately treated surface water runoff and/or foul waters. These developments can also, if sited inappropriately, result in disturbance, habitat loss or fatalities to mobile species e.g. birds and otters that are representative of features of interest of European Sites.</p> <p>In relation to other actions, such as those relating to landuse such as built environment and many of the Decarbonising zone actions, existing mitigation in the current and Draft Donegal CDP 2024 would apply at development management and consenting. Whilst it is recognised that the provision of measures to assist communities to become future proof to climate change have positive impacts for the environment and human well-being, the implementation of such measures can result in the provision of new infrastructure that in turn could have potential to result in direct impacts such as habitat loss or habitat degradation or indirect impacts such as habitat and species disturbance and changes in key indicators of conservation status such as water quality. Therefore, additional mitigation is recommended.</p>

Topic	Discussion
	<p>Walking and cycling actions, if they were to take place on or near sensitive habitats or species vulnerable to disturbance would give rise to adverse effects. However, the existing environmental protection provisions in the CDP will apply but a number of these are recommended for mitigation including: . . TR2.4 <i>Design a network of segregated, attractive and safe Active Travel paths as part of the TEN-T Public Road Improvement Project (Donegal) to encourage a greater uptake of walking and cycling.</i></p>
<p>Water resources</p>	<p>Potential effects on water resources (and frequently biodiversity) in the absence of mitigation include:</p> <ul style="list-style-type: none"> • Surface water runoff from impermeable surfaces leading to reduced water quality in groundwater springs or surface waters affecting qualifying habitats and species downstream (impacts can range from short to long term); • Changes in the flow rate of watercourses arising from an increased footprint of impermeable surfaces within the Plan area - increasing the extent of impermeable surfaces will result in a decrease in infiltration and an increase in runoff; • Generally, land use practices can result in water quality impacts and whilst surface water impacts may be identified quickly, impacts to groundwater can take much longer to ascertain due to the slow recharge rate of this water resource; • Water quality impacts can also have human health impacts in the case where bacterial or chemical contamination arises. Pressures and impacts on material assets from climate change such as flooding with damage to wastewater treatment facilities or water supply is particularly relevant in this regard. <p>The current Donegal CDP and draft CDP 2024 -2030, already includes a range of provisions and measures to address and minimise the above effects, including measures around flood risk management and development control as well as adaptation measures that support nature based solutions. The CAP however further enhances and strengthens these through the flood resilience actions and nature based solutions in particular. Implementation of the Biodiversity Plan for the County and support for working to address water quality issue with different agencies, and sectors, water conservation and SuDs, these create positive interactions for Water SEOS as well as cross cutting other SEOS in a positive manner.</p> <p>A key focus on the actions should be to prioritise Nature Based solutions and learn from other relevant case studies and examples from Ireland and with EU that have demonstrated excellent outputs that provide co benefits.</p> <p>Climate change effects are transferred and impact on water resources at a very early stage and habitats and species, including human are very dependant and reliant upon water of quality and provision.. Engaging with different sectors (<i>SR4 Support farmers in the shift toward low-carbon and climate-resilient agricultural practices</i>, and support for nature based solutions is positive in this regard, as is risk assessments in terms of infrastructure that can be at risk from climate change impacts.</p> <p>Measures around SUDs, such as, creating long term direct positive effects on water resources, as well as soil and biodiversity, population and human health. The action is recommended for mitigation to further detail and strengthen overall environmental protection.</p> <p>Mitigation measures are recommended for a number of actions to reduce potential adverse effects, strengthen overall environmental protection and provide greater focus to the action, these include <i>Actions NE3 Increase coastal resilience to the changing climate and support nature based solutions to avoid coastal squeeze and make space for nature. NE2.1 Forestry - Work with Coillte to promote and implement appropriate water protection and integration of biodiversity measures in forestry catchments where potential for impact on waterbody (e.g. sediment, pesticides, colour, organic matter and high rainfall events in line with Water Framework Directive objectives. And BE5.1 Be</i></p>

Topic	Discussion
	<p><i>proactive in providing flood resilience to municipal infrastructure by conducting flood risk assessments and seeking OPW Funding through their Minor Works programme where necessary and applying nature based solutions where possible</i></p>
Soil and Geology	<p>Soil quality and function may be enhanced through particular measures associated with flood resilience, nature based solutions and resource management in particular. The carbon sequestration function of soil and healthy soil quality are extremely significant, across several environmental parameters but in particular for agriculture which amounts to 39% of the GHG emissions at county level.</p> <p>In this regard, actions that support collaboration and support for agricultural projects, tree policy and nature based solutions are all positive. For example, <i>SR4 Support farmers in the shift toward low-carbon and climate-resilient agricultural practices</i>, and support for peat rehabilitation <i>NE1.7 Support national and regional initiatives in the rehabilitation of peatland as a carbon sink and provide habitat for biodiversity</i>.</p> <p>Support for the circular economy in particular around food waste, local food production is also positive, particular if composting can be applied to enhance soil function.</p> <p>The support for reuse of existing buildings, and promotion of brownfield over greenfield sites is supported through national, regional and county policy and actions relating to these are supportive of such policy measures and positive for soil and geology SEOs with indirect positive measures for water, habitats and species, and human health.</p> <p>A number of the measures relating to soil are identified for mitigation to further strengthen the environmental performance of these actions.</p>
Air Quality and Climate	<p>Overall, the CAP will contribute positively to climate change adaptation, and mitigation through the actions as well as the KPIs included in the plan that will allow robust monitoring of actions. In summary, actions relating to nature based solutions, peatland restoration, energy efficiency and reductions across transport, residential and landuse can provide positive effects in terms of GHG reductions, but also carbon sequestration with accompanying co benefits across most SEOS in particular landscape, population and human health, air quality, water and soil and biodiversity. These are dependent on existing environmental resources (existing) being understood and surveyed, with interventions underpinned by scientific and robust evidence base.</p> <p>The focus on energy efficiency and innovation as seen through the actions identified in the CAP, examples include <i>GL1 Deliver the appropriate climate response on all Council owned assets to align with a trajectory to net zero emissions</i>.</p> <p>Key measures relating to behavioural change around transport and the increase in walking/cycling and public transport measures are essential in addressing transport emissions over the lifetime of the CAP and beyond. The support and actions Carndonagh and Falcarragh DZ will facilitate peer to peer learning amongst communities and demonstrate successful actions at community and local scale.</p> <p>Other actions that support community engagement and creative responses to climate change are positive in terms of behavioural change and communication around climate change.</p> <p>Recognising the ecosystems functions of soil, water and biodiversity is a key element in the Nature Based solutions actions and is an important acknowledgement that also provides for positive effects across a number of SEOs.</p>

Topic	Discussion
Material Assets	<p>Many of the measures provide for mitigation and adaptation with a view to minimising adverse effects of climate change on material assets, and also responding and facilitating behavioural and modal change in energy use and transport. Examples of these include the following:</p> <ul style="list-style-type: none"> • <i>BE5</i> Ensure that all Council owned buildings, facilities and infrastructure are resilient to the effects of climate change. • Promotion of nature based solutions and SuDs • Climate proofing local authority actions • Actions relating to energy efficiency, renewable energy and circular economy are also identified as generating positive, long terms effects, being consistent with Material Asset SEOS, as well as soil and geology and accompanying positive medium term effects on population and human health and water, biodiversity.
Cultural Heritage	<p>Archaeology and Built heritage features are present throughout the plan area, and in particular those archaeological or built heritage features associated with the coastline may be particularly vulnerable to climate change effects. The concentration of built heritage features and historic settlements on the coastline increases their vulnerability to the effects of climate change. Cultural heritage is not often considered or captured adequately in coastal zone management planning and this can give rise to adverse effects on cultural heritage, for example: Overlooking cultural resources can result in</p> <ul style="list-style-type: none"> • loss of cultural identity associated with certain habitats; • loss of tourism, recreational and educational opportunities; • decline in local ecological knowledge, skills and technology pertaining to habitat management; • and loss of opportunities for social and cultural capital¹ <p><i>CR3</i> Continue to support arts and heritage within the County as a tool to support education and awareness on climate action is positive in terms of engagement and culture with positive interactions for PHH and Cultural heritage.</p> <p>Research and risk assessment is important to ensure cultural heritage assets (tangible and intangible) are identified and managed with sensitive interventions to the fabric of the built heritage feature. Adaptive reuse is positive as it supports circular economy and avoids use of greenfield sites, support towns centre activity and is positive for SG1, AQ CC and PHH SEOS. In this regard, recent EPA Research² (2022) identifies the following priorities in terms of adaptation for the built environment and these should be integrated over the course of the CAP,</p> <ul style="list-style-type: none"> • Mainstreaming adaptation in the built environment. This includes prioritising adaptation as a critical second pillar of climate action; focusing on the full range of climate change risks (not simply flooding); integrating built environment adaptation with the wider land use system; capturing mitigation and adaptation benefits through holistic approaches; and focusing on the whole built environment and not only new-builds. • Evidence and uncertainty in decision-making. Adaptation of the built environment requires a robust and geographically tailored evidence base; there is a need for granular and useable information on climate impacts. Uncertainty strengthens the case for early investment and

¹ Coastal cultural heritage: A resource to be included in integrated coastal zone management [SornaKhakzad^aMarnixPieters^bKoenraadVan Balen^cOcean & Coastal Management Volume 118, Part B](#)

² Built Environment Climate Resilience and Adaptation (2019-CCRP-DS.21) EPA Research Report. Mark Scott, Louise Burns, Mick Lennon and Oliver Kinnane. [Research Report 418.pdf \(epa.ie\)](#)

Topic	Discussion
	<p>points to adopting the precautionary approach, and further research is needed in relation to costs, responsibilities of key stakeholders, behaviour of building occupants and social vulnerability in relation to climate risks.</p> <ul style="list-style-type: none"> • Co-designing of adaptation interventions. This includes collaborative stakeholder engagement, the inclusion of climate scenarios as part of statutory public consultation and the testing of novel public engagement methods. • Capacity-building requirements. This includes improving resourcing and institutional capacity, adopting new ways of working to avoid traditional siloed thinking and continued professional development and training for elected representatives. <p>Potential actions with Creative Ireland relating to climate change should be explored in the CAP.</p>
Landscape	<p>Long term positive effects are identified for the CAP and landscape primarily through the nature based solutions, peatland rehabilitation and habitat connectivity, this combines and interacts also with a range of other parameters that create and contribute to local landscape character including W, BFF, CH, SG and PHH.</p> <p>Similarly to the Water, BFF, PHH SEOS, the potential for transboundary effects are identified for landscape, particularly terms of larger infrastructural actions/ and/or renewable energy both offshore and onshore.</p> <p>Many of the measures in the CAP require a landscape level response such as recognition of wildlife corridors and this an important approach to take when responding to climate change.</p> <p>Overall, positive effects identified for Landscape SEOs, as landscape change can be considerable with climate change effects in terms of changing water levels, habitat change, transport measures and adaptation measures such as flood risk management.</p> <p>An increase in public realm and permeability would all create long term positive effects for the Landscape SEOs.</p> <p>Mitigation measure are recommended for a number of actions to strengthen consideration of landscape.</p>

7.2 Cumulative effects

This section of the Environmental Report provides an outline of the potential cumulative effects on the environment as a result of implementation of the CAP 2024-2029.

Cumulative effects are referred to in a number of SEA Guidance documents and are defined in the EPA SEA Process Checklist as *“effects on the environment that result from incremental changes caused by the strategic action together with other past, present and reasonably foreseeable future actions. These effects can result from individually minor but collectively significant actions taking place over time or space”*. These effects can be insignificant individually but cumulatively over time and from a number of sources can result in the degradation of sensitive environmental resources. The assessment of cumulative effects is a requirement of the SEA Directive (2001/42/EC).

The 2004 Guidelines produced by the DECLG outlines that the SEA process is in a good position to address cumulative effects for which the Environmental Impact Assessment process is not equipped to deal with. Due to the strategic nature of the SEA process a forum is provided in which cumulative effects can be addressed. The EPA Strive Report 2007-2013 on ‘Integrated Biodiversity Impact Assessment’ describes cumulative effects as incremental effects resulting from a combination of two or more individual effects, or from an interaction between individual effects – which may lead to a synergistic effect (i.e. greater than the sum of the individual effects), or any progressive effect likely to emerge over time.

- Cumulatively and in combination, several of the CAP Actions encourage a modal shift and in turn gives rise to indirect positive effects, for example by creating more physical activity in terms of travel to work and school, positively affecting air quality with accompanying benefits to both population and human health .
- In addition, this can create a reduction in emissions associated with Particulate Matter and Nitrogen Dioxide. This benefits both human health as well as Biodiversity, flora and fauna and surface water features.
- The majority of the Flood Resilient measures are identified as being consistent and positive across all SEOs, in particular measures that promote natural based solutions such as tree planting and SUDs are all positive across all parameters and can provide multi-functional benefits in the landscape.
- In combination and cumulative effects are particularly relevant to the Nature Based solutions actions which together create long term positive effects across Population, Landscape, Biodiversity, Soil and Geology, Water and Material Assets whilst responding to climate change effects.
- Landuse effects are identified particularly for certain energy and transport measures; including active travel, renewable energy, protection of coast. In the absence of mitigation adverse effects could arise but the compliance with the statutory land use plans notably the County Development Plan will provide appropriate protection.
- In turn, positive short to medium term effects are identified in the case of significant reductions in emissions from transport and residential energy with cross cutting positive effects on air quality with accompanying positive effects on human health, water, habitats and climate.
- Threaded throughout the CAP is the theme of citizen engagement and awareness raising and this is critical to both inform, educate and engage citizens in relation to responding to climate change, whilst also identifying positive measures. Many of the engagement actions should increase public awareness and a sense of responsibility, collective and individual action in

addressing and adapting to climate change. Positive in combination effects are identified for human health around modal shifts, and green infrastructure, behavioural change, tree planting and responding to flood risk. The Carndonagh and Falcarragh DZs can function as local examples of good practice and support learning and lessons across the county.

- The purpose of the actions within the CAP are to significantly reduce the county's GHG emissions and these actions together, if fully implemented are positive for addressing this significant challenge that requires immediate and urgent implementation of actions.
- Collaboration within the local authority but also with other agencies and departments such as Department of Agriculture, food and marine, locally led agri environment schemes and research with academic institutions should result in positive effects in the medium to longer term.
- A key challenge is assessing how the pace of climate change impacts interact with the CAP actions, potential cascading effects and ensuring that the monitoring is accurate, frequent and able to influence remedial actions.

TABLE 7-2 KEY PLANS CONSIDERED FOR CUMULATIVE IMPACTS

Principal Plans	Comment	Statement
<p>National Planning Framework 2030</p>	<p>The NPF amongst a range of issues, addresses the future development direction of our cities, towns and rural areas. The framework specifically includes:</p> <ul style="list-style-type: none"> • The role of our Cities and Towns • The potential of our Regions • Rural Development • Providing better quality of life for people and communities • Provision of homes to meet future needs • Our coastal and marine areas • Co-ordination of place making with our neighbours • The role of planning in responding to climate change • The context for future infrastructural investment <p>The National Planning Framework seeks to:</p> <ul style="list-style-type: none"> • Guide the future development of Ireland, taking into account a projected 1 million increase in our population, the need to create 660,000 additional jobs to achieve full employment and a need for 550,000 more homes by 2040 • Enable people to live closer to where they work, moving away from the current unsustainable trends of increased commuting 	<p>The Natura Impact Statement for the NPF concludes that subject to the mitigation proposed in the NIS being incorporated, there will be no adverse effects on the integrity of any European Sites as a result of implementation of the NPF.</p> <p>Otherwise the Environmental Report for the NPF identifies a variety of positive, neutral and negative effects in each of the environmental categories. It is therefore difficult to neatly categorise the effects of the NPF on all environmental categories opposite.</p> <p>However Section 8.3.10 Cumulative Impacts of said Report states that ‘the greatest cumulative benefit should be in relation to Population and Human Health’ and otherwise states that ‘there is potential for cumulative negative impacts on receptors such as biodiversity, water, soils, cultural heritage and landscape’.</p> <p>Negative effects arising from the NPF on Biodiversity and Water may also impact on said receptors in Donegal and are thus categorised as negative in the assessment opposite.</p> <p>However, it is unlikely that the NPF will give rise to negative impact on landscape receptors in Donegal given its emphasis on compact growth, and otherwise any negative effect arising from the NPF on soils and cultural heritage elsewhere are unlikely to affect said receptors within Donegal. Consequently, the impact of the NPF on these receptors is categorised as insignificant. No in-combination impacts were predicted as a result of implementation of the Plan, the revised NPF will be subject to full SEA and AA.</p> <p>The revised NPF will be subject to full SEA and AA</p>

Principal Plans	Comment	Statement
	<ul style="list-style-type: none"> • Secure more compact forms of urban development in all types of settlements • Regenerate rural Ireland by promoting environmentally sustainable growth patterns • Plan for and implement a better distribution of regional growth, in terms of jobs and prosperity • Transform settlements of all sizes through imaginative urban regeneration and bring life / jobs back into cities, towns and villages • Co-ordinate delivery of infrastructure and services in tandem with growth, through joined-up NPF/National Investment Plan and consistent sectoral plans, which will help to manage this growth and tackle congestion and quality of life issues. 	
<p>CAP Strategic Plan 2023-2027 / FoodVision 2030 /</p>	<p>The CAP Strategic Plan is the key mechanism for agriculture and needs to comply with all environmental legislation and the mitigation measures for interventions as detailed in the SEA ER and NIS. The CAP SP provides for annual actions and interventions from 2023-2029 and remedial action should adverse effects arise.</p>	<p>Section 8.5.1 of the SEA ER for the CAP Strategic Plan identifies a variety of positive, negative effects in each SEA parameter</p> <p>Several of the interventions are identified as broadly positive at strategic scale, particularly those conditionality measures such as GAEC 3. Other interventions under the Rural Development Interventions including EIPs, and Cooperation Projects are also positive. This is due to being responsive to local conditions, bottom up and developed with appropriate technical ecological expertise. Cumulatively these measures should give rise to positive effects on SEOs.</p> <p>Interactions between water quality measures such as nutrient management, tree planting may contribute positively to improving water and air quality with accompanying improvements for BFF, where there is a significant uptake at catchment scale in elements</p>

Principal Plans	Comment	Statement
		<p>such as riparian buffers, co benefits and cross cutting effects could arise. Conversely, low uptake or preferential uptake in technological measures only may have a less demonstrable effects on reversing the serious decline in some habitats and species at national scale. The trends and threats from agriculture to biodiversity remain extremely serious and significant and the need to monitor the interventions to assess their effectiveness remains a key issue for the CAP Strategic Plan particularly if it seeks to reflect and support the Biodiversity 2030 Strategy.</p> <p>The interactions between human health and other environmental parameters such as water, material assets, air quality and climate change are less clear and again depend on the interventions being designed as the right measure in the right place to accrue greater overall environmental enhancements. The serious challenges facing farmers and rural dwellers from climate change effects and the ability of the interventions to provide mitigation and adaptation to such effects will rely largely on the uptake, extent and location of range of measures.</p> <p>The potential for cumulative effects relating to water from the interventions could contribute to reversing declines in surface, ground and transitional water bodies. The adherence and full implementation of all GAECs is essential in this regard. The interactions between water quality and PHH, Soil and Biodiversity in particular is very inter dependant and reductions in nutrients inputs, ammonia emissions, combined with measures around peat soils, wetlands and habitats would be positive.</p> <p>Geology and Soils: Broadly positive as a result of the combined effects of GAECs relating to soil organic matter, Cooperation projects, eco-scheme measures and the Straw Incorporation Measure, EIPs. but potential varies according to uptake of voluntary measures to underpin minimum requirements of GAECs and BISS.</p> <p>Climatic Factors and Air Quality: Improved land management practices and measures to reduce emissions associated with the recent increase in overall bovine numbers, and intensification of farming with increased emissions from nutrient management. Potential positive impacts around certain GAECs and targeting of measures in Cooperation Projects and AECMs to support nature based solutions that increase resilience to climate change and</p>

Principal Plans	Comment	Statement
		<p>improve carbon sequestration. Again, the provision of the Climate Change sectoral targets will be a significant influencing factor.</p> <p>Landscape: landscape is particularly vulnerable to cumulative effects arising from interventions and can present as a combination of cumulative adverse effects across a range of other parameters for example water, biodiversity, soil and cultural heritage.</p> <p>Cultural Heritage: interventions under LEADER, Cooperation Projects, EIP as with landscape offer the means to enhance and improve cultural heritage SEOs.</p> <p>Material Assets: the measures relating to improved water quality should result in positive effects on MA should they result in improvements to water quality</p>
<p>Northern and Western Regional Economic and Spatial Strategy 2020-2032;</p>	<p>he RSES Growth Framework provides a clear sustainable strategy for compact growth and delivering those key elements known to inform business location choices. It identifies a pathway through the inclusion of a Metropolitan Area Strategic Plan (MASP) for Galway, tailored Regional Growth Centre Strategic Plans for Sligo, Athlone and Letterkenny (incorporating the strategic cross-border partnership with Derry-Strabane) and the identification of priority actions for Key Towns and places. This region is also defined by its strong connection to our rural areas and rural economies. The RSES provides for the careful management and encouragement of development within rural areas, to ensure that they remain and grow as vibrant communities.</p>	<p>The Natura Impact Statement for the RSES concludes that ‘the NW RSES would not adversely affect the integrity of a European site (whether individually or in combination with other plans or projects) subject to application of all of the mitigation measures identified in this NIR.’</p> <p>Otherwise, the Environmental Report for the RSES identifies a variety of positive, neutral and negative effects in each of the environmental categories. It is therefore difficult to neatly categorise the effects of the RSES on all environmental parameters and these should be addressed through planning hierarchy and appropriate levels and scale of plans and accompanying environmental assessments.</p> <p>However, Section 8.4 Cumulative Effects of the Environmental Report for the RSES (which takes into account the ‘interaction of regional policy objectives within the RSES’) states that: ‘the greatest cumulative benefit should be in relation to PHH’, and otherwise states that ‘there is potential for cumulative negative impacts on receptors such as biodiversity, water, soils, cultural heritage and landscape,’.</p> <p>Negative impacts on biodiversity, and water arising from the RSES outside Donegal may also negatively impact on said environmental receptors in Donegal as the plan area is inherently linked to wider ecosystems and hydrological systems. (e.g. additional development within the River Foyle or Erne catchments)</p> <p>However, given the emphasis on the ‘sustainable growth of more compact urban and rural settlements’ contained within the RSES it is considered that the strategy will not have a negative effect on landscape receptors Donegal. Consequently, the effect of the RSES on landscape has been rated as insignificant.</p> <p>In addition, negative impacts on receptors which are geographically specific to Donegal such as its soil resource, and cultural heritage are unlikely to be significantly impacted by any</p>

Principal Plans	Comment	Statement
		<p>negative effects arising from the RSES elsewhere. Consequently, the impact of the RSES on these receptors has rated as insignificant.</p> <p>No in-combination impacts were predicted as a result of implementation of the Plans.</p>
<p>Regional Development Strategy (Northern Ireland)</p>	<p>n broad terms the Strategy aims to take account of the economic ambitions and needs of the Region, and put in place spatial planning, transport and housing priorities that will support and enable the aspirations of the Region to be met. Chapter 2 details the Vision and aims. The RDS vision is: “An outward-looking, dynamic and liveable Region with a strong sense of its place in the wider world; a Region of opportunity where people enjoy living and working in a healthy environment which enhances the quality of their lives and where diversity is a source of strength rather than division.” 2.4 This is supported by 8 aims:</p> <ul style="list-style-type: none"> • Support strong, sustainable growth for the benefit of all parts of the Region. • Strengthen Belfast as the regional economic driver and Londonderry as the capital of the North West. • Support our towns, villages and rural communities to maximise their potential. • Promote development which improves the health and well-being of communities. • Improve connectivity to enhance the movement of people, goods, energy and information between places. • Protect and enhance the environment for its own sake. • Take actions to reduce our carbon footprint and facilitate adaptation to climate change. • Strengthen links between north and south, 	<p>The assessment section of the Environmental Report on the RDS (NI) (p.117 refers) noted that the RDS would, in summary have the following cumulative environmental effects:</p> <ul style="list-style-type: none"> • Biodiversity: Cumulative effects upon habitats and biodiversity in urban locations as a result of additional housing and infrastructure: • Population: Urban populations will be supported by regeneration initiatives, additional housing and improved economic prospects, whilst rural populations will be aided by better access to services and facilities. • Human Health: Substantial levels of development may lead to negative impacts on air quality and consequently human health. However, this may be offset by enhanced access to services, improved walking and cycling opportunities, and reduced congestion. • Soil: Reduction of waste may reduce landfill requirements. However, this would offset by significant developments around settlements and climate change may result in soil erosion. • Water: Development pressure may impact upon water quality in certain areas if appropriate infrastructure is not in place.. • Air: Guidance to reduce car use, promote public transport and encourage walking and cycling should mitigate emission increases. • Climate: Positive guidance on climate change mitigation but however reductions only possible if cumulative actions taken at global level. • Material Assets: Transport, waste and water infrastructure will be cumulative affected by increases in development. Effects will be negative unless additional investment takes place to ensure capacity is phased. • Cultural Heritage: Guidance to reduce vehicles numbers, reduce congestion and improve environmental quality should have positive effects. • Landscape: Landscape on urban fringe may be impacted.

Principal Plans	Comment	Statement
	east and west, with Europe and the rest of the world	
Third Cycle River Basin Management Plan for Ireland 2022-2027 draft	The third and current cycle aims to build particularly on the initiatives of the second cycle, particularly the governance and implementation structures, and to improve the establishment of Irish Water, An Forum Uisce, the Local Authority Waters Programme and the Agricultural Sustainability Support and Advisory Programme.	These objectives support the policies in the CAP. However, any developments that may arise as a result of this plan will be required to have a project level AA and EIA which will assess these in detail and provide suitable mitigation measures where appropriate. The Third Cycle RMP is subject to full SEA And AA. No in-combination impacts were predicted as a result of implementation of the Plans
Donegal County Development Plan 2018-2024	The Donegal County Development Plan was adopted in 2018 and was prepared in accordance with the Planning and Development Act 2000, and was subject to full SEA, AA and SFRA. The plan sets out the overall strategy for planning and sustainable development for the county. Chapter 10 of the plan outlines the aims of the Donegal County Council to protect and enhance the natural heritage and biodiversity of designated and non-designated ecological sites and sets out the policies and objectives for this.	The SEA ER Table 6.2 states: Cumulative impacts and interaction of above mentioned items can give rise to increased pressure on the environment. The impacts and interactions will obviously vary in extent and nature. In particular, issues in respect to water quality, climate change and the issue of oneoff housing in the countryside crosses a number of environmental topic areas. Population increase and changes in peoples activities and settlement patterns can impact on a wide range of the topics mentioned above. The NIR states: All documents outlined above are generally strategic in nature with far-reaching influence and overlapping objectives. Many of these plans make positive environmental statements and set a policy framework that will ensure the co-ordinated development of the state. In light of the scale and nature of the plans and projects listed above, the possible extent and character of in-combination effects is somewhat uncertain and may be difficult to assess at this County scale. However, it is clear from a review of the policies and objectives of the Draft CDP that there are sufficient safeguards (additional policies and mitigation) in place to ensure that there will not be any significant in combination effects on the Natura 2000 network.
Donegal County Local Economic and Community Plan (LECP) 2017 -2022; new LECP in prep.	These plans were subject to SEA and AA screening and concluded that subject to full adherence and implementation of measures likely significant effects were not identified.	No in-combination impacts were predicted as a result of implementation of the Plans.

Principal Plans	Comment	Statement
County Donegal Climate Change Adaptation Strategy 2019-2024	Donegal Council Climate Change Adaptation Strategy (2019-2024 and any subsequent versions). This Plan has been subject to SEA/AA screening and is being replaced by the CAP 2024 -2029	No in-combination impacts subject to full implementation and adherence to mitigation measures were predicted as a result of implementation of the Plans.

8 Mitigation Measures

8.1 Introduction

This chapter outlines the mitigation measures that will prevent, reduce, and offset as much as possible any significant adverse effects on the environment of the plan area resulting from the implementation of the CAP. Section (g) of Schedule 2B of the SEA Regulations (as amended) requires *'The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the Plan'*.

Mitigation involves ameliorating significant negative effects. Where the environmental assessment identifies significant adverse effects, consideration is given in the first instance to preventing such impacts or where this is not possible, to lessening or offsetting those effects. Mitigation measures can be generally divided into those that:

- Avoid effects;
- Reduce the magnitude or extent, probability and/or severity of effect;
- Repair effects after they have occurred, and
- Compensate for effects, by balancing out negative impacts with positive ones.

The iterative process of the CAP preparation has facilitated the integration of environmental considerations into the CAP. In addition, potential positive effects of implementing the CAP have been and will be maximized and potential adverse effects have been and will be avoided, reduced or offset.

Many impacts will be more adequately identified and mitigated at project and EIA level. In general terms, all proposals for development will be required to have due regard to environmental considerations outlined in this Environmental Report and associated assessments including the Screening for Appropriate Assessment/Natura Impact Report. Proposals for development which are deemed contrary to the environmental objectives contained in the Donegal CDP 2022-2028 and Local Area Plans will not normally be permitted, and if permitted, not without the appropriate site and development specific mitigation measures. There were also a number of actions associated with the CAP that were identified as potentially generating significant adverse impacts on the environment, and/or were identified as benefiting from additional text amendments. Suggested rewording of these proposals are put forward for consideration and recommended for inclusion in the CAP.

This chapter is structured as follows:

8.2 Environmental Protection Measures in the current Donegal CDP 2018-2024 and those in the Draft CDP 2024 -2030

8.3 Mitigation measures –amendment of text or new actions in the CAP 2024 -2029.

8.2 Environmental Protection Measures in the Donegal CDP 2018-2024 and Draft CDP 2024 -2030

TABLE 8-1 EXISTING ENVIRONMENTAL PROTECTION MEASURES IN CURRENT DONEGAL CDP 2018 -2024 AND DRAFT CDP 2024 -2030

Ref	Text
NH01:	To protect, sustainably manage and enhance the rich biodiversity of County Donegal for present and future generations.
NH-O-2:	To comply with Article 6 of the Habitats Directive (92/43/EEC) and have regard to the relevant conservation objectives, management plans, qualifying interests and threats to the integrity of Natura 2000 sites
NH-O-3	To maintain the conservation value of all existing and/or proposed SACs, SPAs, NHAs and RAMSAR sites including those plant and animal species that have been identified for protection under the EU Habitats Directive (92/43/EEC), EU Birds Directive (79/409/EEC as amended by 2009/147/EC), the Wildlife Acts (1976-2014) and the Flora Protection Order (2015).
NH-O-4:	To ensure the protection and management of the landscape in accordance with current legislation, ministerial and regional guidelines and having regard to the European Landscape Convention 2000
NH-O-5:	To protect, manage and conserve the character, quality and value of the landscape having regard to the proper planning and development of the area, including consideration of the scenic amenity designations of this plan, the preservation of views and prospects and the amenities of places and features of natural, cultural, social or historic interest
NH-P-1	It is a policy of the Council to ensure that development proposals do not damage or destroy any sites of international or national importance, designated for their wildlife/habitat significance in accordance with European and National legislation including: SACs, Special SPAs, NHAs, Ramsar Sites and Statutory Nature Reserves
NH-P-2:	It is the policy of the Council to protect the habitats of species listed for protection through the prevention and management of the spread of invasive plant and animal species in the County in accordance with European and National legislation
NH-P-3:	It is a policy of the Council to require the consideration of Designated Shellfish Waters and their Shellfish Pollution Reduction Programmes in all development proposals that fall within their catchment..
NH-P-4	It is a policy of the Council to require the consideration of Freshwater Pearl Mussel and any relevant Freshwater Pearl Mussel Sub-basin Plans in all development proposals that fall within their basin of catchment
NH-P-5:	It is a policy of the Council to require consideration of the impact of potential development on habitats of natural value that are key features of the County’s ecological network and to incorporate appropriate mitigating biodiversity measures into development proposals.
NHP-18	It is the policy of the Council to ensure that an ecological assessment (including where necessary EIA) is carried out at the appropriate level in relation to proposals for drainage or reclamation of wetlands.
MRCM-02	To safeguard and improve and the health of our Marine ecosystem by: ♣ Protecting the qualifying habitat and species of Natura 2000 sites through Appropriate Assessment of development proposals. ♣ Maintaining and improving water quality in our estuaries and seas by implementing River Basin Management Plan and any future programmes under the Marine Strategy Framework Directive. ♣ Ensuring that there is; sufficient sewage treatment capacity to serve development in urban areas, adequate on-site effluent treatment to EPA standards for developments in rural/unserved areas, and adequate pollution control measures for commercial/industrial development. County Donegal

Ref	Text
	Development Plan 2018-2024 Part B: Objectives and Policies of the Plan Chapter 10: The Marine Resource and Coastal Management Page 167 ♣ Seeking best practice measures in relation to the carrying out of site preparation and construction works for developments in close proximity to rivers and the sea
WES-O-4:	To implement the EU Water Framework Directive through the implementation of the appropriate River Basin Management Plan and Programme of Measures as it affects Donegal
WES-O-5:	To maintain, protect, improve and enhance the quality of surface waters and ground waters in accordance with the Programme of Measures contained within the relevant River Basin Management Plan..
WES-O-6:	To provide for environmental protection, through: ♣ The protection of surface water and ground water from pollution in accordance with the relevant River Basin Management Plan, Groundwater Protection Scheme and Source Protection Plans for public water supplies; ♣ The protection against soil contamination; ♣ Minimising air and noise pollution; ♣ Supporting remediation of all existing pollution; and ♣ Ensuring full compliance with relevant EU Directives, and National and European Policies and Regulations and through monitoring and control of relevant activities
DRAFT Donegal CDP 2024 -2030	
CAO 01	To promote sustainable settlement and transportation strategies in urban and rural areas including the promotion of measures to— a. reduce energy demand in response to the likelihood of increases in energy and other costs due to long-term decline in non-renewable resources, b. reduce anthropogenic greenhouse gas emissions; and c. address the necessity of adaptation to climate change, taking account of Donegal County Council’s Climate Action Plan (within the meaning of section 14B of the Climate Action and Low Carbon Development Act 2015). in particular, having regard to location, layout and design of new development
CAO 02	To support and implement: the UN Sustainable Development Goals (SDGs); the relevant National Planning Framework climate change National Policy Objectives (NPOs); the national climate change objectives contained in the Climate Action Plan 2023; and the Overarching Environmental Regional Policy Objectives and relevant Regional Policy Objectives of the Regional Spatial and Economic Strategy; and the actions contained within Donegal County Council’s Climate Adaptation Strategy 2019-2024 (or any updates of any of the foregoing).
BIO P1	To require all developments to comply with the requirements of the EU Habitats Directive and EU Bird Directive, including ensuring that development proposals: a. Do not adversely affect the integrity of any European/Natura 2000 site (i.e. Special Areas of Conservation and Special Protection Areas) including effects on ex-situ but functionally linked habitats, and species (e.g. Pearl Mussel) save where a plan must be carried out for imperative reasons of overriding public interest (IROPI). b. Provide for the protection of animal and plant species listed in Annex IV of the EU Habitats Directive. c. Manage features of the landscape (such as rivers, riverbanks, field boundaries, ponds and small woods) which are of major importance for wild fauna and flora and the ecological coherence of the Natura 2000 network.
BIO P3	Save to the extent necessary to provide for strategic infrastructure projects including the TEN-T Priority Route Improvement Project, Donegal, it is the policy of the Council to: a. Protect, where justified, features of local biodiversity value (e.g. hedgerows/field boundaries, trees, woodlands, wetlands, water bodies, riverbanks and peatlands) which make a significant contribution to the biodiversity, ecological connectivity, and associated visual amenity and/or rural character of the area. b. Require, where justified, that developments otherwise maximise the retention of and suitably integrate such features. In this regard proposals for the removal of existing roadside hedgerows/field boundaries for new developments in rural areas will only be permitted in so far as is necessary to safeguard public safety and any remaining

Ref	Text
	portion of those features identified above not so required shall be retained. c. Require that development proposals provide biodiversity enhancement measures (e.g. native tree and hedgerow planting, and nature-based water management solutions). d. Require that large-scale developments result in no net biodiversity loss.
BIO P4	Ensure that any development proposals do not lead to the introduction or spread of invasive species. Where invasive species are present, development proposals may be required to be submit an appropriate control and management programme.
BIO-P-5	<p>a. Ensure that new developments do not have a significant adverse impact on pollinator habitat and species, including protecting rare pollinators listed under the Wildlife Act and maximizing the retention of pollinator friendly habitats within development proposal where feasible.</p> <p>b. Require pollinator friendly planting and management regimes as part of planting/landscaping schemes for new public development including green infrastructure, large scale residential and transport development.</p>
L O 1	To protect, manage and conserve the character, quality and value of the Donegal landscape
WE P9	<p>To ensure that the assessment of Wind Energy Development Proposals have regard to the following Specific Biodiversity Related Requirement:</p> <p>a. Loss of functionally linked habitat: Developers of wind energy proposals on greenfield sites shall undertake a preconstruction appraisal of habitats. Should habitats suitable for supporting Special Conservation Interest bird species be present, developers will be required to undertake pre-construction bird surveys to confirm whether the site supports a significant proportion of bird populations (typically taken to be 1% of the population of a SPA, at time of designation). Depending on whether qualifying birds represent breeding or overwintering species, surveys will need to be undertaken in the breeding season or overwintering period (October to March). If a site represents functionally linked habitat, avoidance / mitigation measures will be required and the proposal will need to be supported by a bespoke Appropriate Assessment.</p> <p>b. Mortality due to collision with operational wind turbines: Wind energy development proposals shall demonstrate that they can be delivered without resulting in adverse effects on the integrity of European sites. Vantage point surveys will be required to establish:</p> <p>(i) the overall use of the development site by Special Conservation Interest birds and</p> <p>(ii) more detailed usage by Special Conservation Interest birds of the turbine swept area taking account of specifications such as turbine height, blade length, nacelle (blade hub) rotation speed and the number of turbines. Mitigation measures may need to be delivered to ensure that any residual risks are appropriately avoided or reduced.</p> <p>c. Disturbance displacement: To avoid potential permanent disturbance displacement impacts on Special Conservation Interest bird species, Donegal County Council will generally not support wind energy proposals within 1km of Special Protection Areas unless clear evidence from the applicant or scheme promoter can demonstrate no adverse effect on site integrity will arise.</p> <p>d. Water Quality: Any wind energy developments within 1 km of sensitive SPAs / SACs shall ensure that potential adverse impacts on the European sites due to water quality impacts are assessed and, where required, mitigated. Mitigation measures include, but are not limited to, water quality and ecological baseline studies, run-off / leachate modelling, delivery of Construction Environmental Management Plans (CEMPs) and Water Management Plans (WMPs) and compliance with industry good practice.</p>

Ref	Text
AH 02	Promote the sustainable and sensitive re-use of the existing built heritage as a positive response to climate change, and promote the circular economy and climate mitigation and adaptation through proper maintenance, repair and appropriate retrofitting, adaptive re-use and regeneration employing best conservation practice
WW P10	<p>In general, development proposals shall only be permitted where it is demonstrated that:</p> <ul style="list-style-type: none"> a. They would not negatively impact on existing or proposed water and wastewater infrastructure including the overbuilding of network infrastructure. b. The location takes into account, and is compatible with, the operation/use or expansion of existing or proposed new wastewater treatment plants. In this regard a setback/buffer of 100m will normally be required between existing or proposed wastewater treatment facilities with a PE >50 and any sensitive developments which have a continuous or frequent public usage (e.g. residential, retail, community, educational). c. Save in exceptional circumstances: <ul style="list-style-type: none"> i. all new development shall provide separate foul and surface water drainage systems and the discharge of additional surface waters to combined (foul and surface water) sewers shall not be permitted; ii. the use of Water Sensitive Urban Design/Nature Based Solutions in surface water management systems within public and private developments and within the public realm shall be required to minimise the extent of hard surfacing and paving, thereby reducing flood risk and improving water quality; d. Water conservation measures (e.g. rainwater harvesting) shall be required as an integral part of developments, save in exceptional circumstances and where appropriate to do so.

8.3 SEA and AA Mitigation Measures to Donegal Climate Action Plan (reworded/new text in blue font)

In addition to the changes to the actions below, the iterative process also allowed for the SEA and AA to add more detail to the main body of the plan including monitoring and additional considerations in the forthcoming Biodiversity Action Plan.

TABLE 8-2 MITIGATION MEASURES TO DONEGAL CLIMATE ACTION PLAN

Action	Mitigation
NE3	Increase coastal resilience to the changing climate and support nature based solutions to avoid coastal squeeze and make space for nature.
CR2	Increase climate literacy across the community through education and raising awareness on climate action and nature based solutions that provide co benefits for human health, water and wildlife
CR4	Ensure that all Council funding mechanisms are underpinned by strong carbon proofing requirements.
new action	In implementing this County Donegal Climate Action Plan, ensure compliance with Donegal County Development Plan 2017-2023 and superseding plans, local area plan objectives and policies relating to environmental management, the protection of statutory Conservation Areas and ensure compliance with specific environmental management measures relating to this plan. Landuse plans and projects arising from this Climate Action Plan will be underpinned by Strategic Environmental Assessment, Environmental Impact Assessment, Appropriate Assessment, and Ecological Impact Assessments as relevant.
new action	Donegal County Council will take account of any relevant recommendations in the EPA State of Our Environment Report 2024, once published, in implementing the Plan over its lifetime.
new action	Donegal County Council will consider any relevant updated actions, measures or recommendations that may arise in updates to the National Climate Action Plan over the lifetime of the Plan.
BE1.2	Deliver the ongoing public lighting LED Retrofit and Energy Reduction Programme, while having due regard to impact of light used on biodiversity.
BE 4.5	Advocate for the ongoing expansion and improvements to the electricity grid infrastructure within the County to support renewable generation and supply.
BE5.1	Be proactive in providing flood resilience to municipal infrastructure by conducting flood risk assessments and seeking OPW Funding through their Minor Works programme where necessary and applying nature based solutions where possible
BE5.3	Ensure that the design of future municipal infrastructure considers flood resilience applying nature based solutions where necessary and that they do not increase flood risk elsewhere.
NE1.8	Reduce the extent of grass cutting carried out in public spaces, to preserve biodiversity and encourage growth of native plants to be undertaken in line with guidance from the All Ireland Pollinator Plan
NE2.1	Forestry - Work with Coillte to promote and implement appropriate water protection and integration of biodiversity measures in forestry catchments where potential for impact on waterbody (e.g. sediment, pesticides , colour, organic matter and high rainfall events in line with Water Framework Directive objectives.

Action	Mitigation
NE 4.1	Develop a protocol for the application of NBS to Council projects and provide training on same
Cardonagh DZ	
DZ BE	To support the initiatives of the North West Regional Energy Agency to improve energy efficiency, retrofitting, renewable energy technologies, local community-based renewable energy, wildlife and space for nature and circular economy projects for homes, businesses, public buildings and communities .
	With respect to DZ actions, ensure that they are aligned with the conservation objectives for the Trawbreaga Bay SPA
	Protect and maintain our freshwater and transitional water systems, in order to achieve the highest possible water quality and achieving Water Framework Directive objectives.
Falcarragh DZ	
DZ BE	To support the initiatives of the North West Regional Energy Agency to improve energy efficiency, retrofitting, renewable energy technologies, local community-based renewable energy, wildlife and space for nature and circular economy projects for homes, businesses, public buildings and communities.
New action	With respect to DZ actions, ensure that they are aligned with the conservation objectives of European Sites in the wider area surrounding Falcarragh
New action	Protect and maintain our freshwater and transitional water systems, in order to achieve the highest possible water quality and achieving Water Framework Directive objectives.

9 Monitoring

9.1 Introduction

It is proposed, in accordance with the SEA Directive, to base monitoring on a series of indicators which measure changes in the environment, especially changes which are critical in terms of environmental quality, for example water pollution levels. Monitoring will focus on the aspects of the environment that are likely to be significantly impacted upon by the implementation of the CAP 2024-2029.

The targets and indicators are derived from the Strategic Environmental Objectives (SEOs) discussed in Chapter Five. The target underpins the objective whilst the indicators are used to track the progress of the objective and targets in terms of monitoring of impacts.

The monitoring programme will consist of an assessment of the relevant indicators and targets against the data relating to each environmental component. Similarly, monitoring will be carried out frequently to ensure that any changes to the environment can be identified.

This Climate Action Plan will be implemented by Donegal County Council. Implementation of the LACAP and in turn monitoring and reporting will be pivotal in demonstrating commitment and leadership in climate action at the local level.

A key part of the CAP is the provision of key performance indicators (KPIs) and annual reporting. Therefore the suggested monitoring table below, whilst adapted for the SEA monitoring prepared for the County Development Plan should cross reference and integrate the KPIs identified for the CAP 2024 -2029.

Key implementation and reporting activities that Donegal County Council will undertake are:

1. **Planning for Implementation:** Devising an approach for the implementation of actions on an annual basis.
2. **Tracking and reporting progress through Key Performance Indicators:** Development and inclusion of plan level KPIs to track, measure and report on progress.

TABLE 9-1 MONITORING TABLE FROM DRAFT DONEGAL CDP 2024-2030

Environmental Category	Targets/Thresholds (e.g. Good Water Quality Status)	Indicators (e.g. WFD Water Quality Status)	Monitoring Agency (e.g. DCC, NPWS etc)	Monitoring Frequency (e.g. Annual)	Remedial Actions
Biodiversity	Maintain or restore of favourable conservation status of the Qualifying Interests of all Natura 2000 sites. (Article 2 of Habitats Directive Refers)	Status and Trends of Qualifying Interests (Habitats and Species) related to Natura 2000 sites affected by the CDP 2024 detailed in reports and conservation assessments prepared under Article 17 of the Habitats Directive.	NPWS	Article 17 Reporting every 6 years	Rigorous assessment of proposed developments and enforcement of planning requirements related to permitted developments within the zone of influence of Natura 2000 sites or likely to impact upon the Qualifying Interests of Natura 2000 sites.
Climate	Contribute toward achievement of International, European and National Greenhouse Gas Emission targets (e.g. 51% reduction in Greenhouse gases by 2030 and a climate neutral economy by 2050)	<ul style="list-style-type: none"> • National greenhouse gas emission data. • Increase in no. of persons commuting by sustainable travel modes (e.g. public transport walking and cycling). • Proportion of new residential units granted within walking (400m) or cycling (800m) distance of public transport or local services. • No. of developments permitted within Flood Zones A and B. 	EPA CSO DCC DCC DCC	Annual Ongoing Biennial Biennial Biennial	<ul style="list-style-type: none"> • Reduce transport related Greenhouse Gas Emissions by promoting more sustainable modes of transportation through full implementation of transport related elements of plan including: <ul style="list-style-type: none"> ○ Compact growth through strict adherence to the zoning and policy framework within the plan. ○ The provision of a local transport interchange hub. ○ The delivery of a local public transport system. ○ The provision of a local walking and cycling links including intra neighbourhood links.

Environmental Category	Targets/Thresholds (e.g. Good Water Quality Status)	Indicators (e.g. WFD Water Quality Status)	Monitoring Agency (e.g. DCC, NPWS etc)	Monitoring Frequency (e.g. Annual)	Remedial Actions
		<ul style="list-style-type: none"> No. of developments permitted utilising SUDS flood attenuation solutions. 			<ul style="list-style-type: none"> Provision of public electric charging infrastructure. Reducing greenhouse gas emissions in new residential and commercial developments through achieving greater energy efficiency in the siting, orientation and design of new developments. Carbon sequestration through the provision of tree planting and the retention of existing trees as an integral part of new developments as part of the development management process. Rigorous assessment of new development proposals vis-a-vis climate related flood risk (e.g. fluvial, pluvial and coastal). Enhanced use of SUDS flood attenuation measures through the development management process.
	Take the requisite measures to maintain the population of the species referred to in Article 1 at a level which corresponds in particular to ecological, scientific and	Status and trends of bird species related to Natura 2000 sites affected by the CDP 2024 detailed in reports prepared under Article 12 of the Bird Directive	NPWS	Article 12 Reporting every 6 years	Rigorous assessment of proposed developments and enforcement of planning requirements related to permitted developments within the zone of influence of Natura 2000 sites or likely to impact upon the Qualifying Interests of Natura 2000 sites.

Environmental Category	Targets/Thresholds (e.g. Good Water Quality Status)	Indicators (e.g. WFD Water Quality Status)	Monitoring Agency (e.g. DCC, NPWS etc)	Monitoring Frequency (e.g. Annual)	Remedial Actions
	<p>cultural requirements, while taking account of economic and recreational requirements, or to adapt the population of these species to that level. (Article 2 of Bird Directive refers)</p> <p>Preserve, maintain or re-establish a sufficient diversity and area of habitats for all the species of birds referred to in Article 1 of the Bird Directive. (Article 3 of Bird Directive refers).</p>	Irish Wetland Bird Survey (I-WeBS) Results in relation to bird species constituting the qualifying interests in Natura 2000 sites.			
	Protect the habitat and species of Ramsar Sites, Nature Reserves Natural Heritage Areas, and proposed Natural Heritage Areas.	Overall extent of woodland habitat and diversity of species within Ramsar Sites, Nature Reserves Natural Heritage Areas, and proposed Natural Heritage Areas	NPWS and DCC	Biannual	<ul style="list-style-type: none"> Rigorous assessment of proposed developments and enforcement of planning requirements related to permitted developments to ensure that do not negatively impact on Ramsar Sites, Nature Reserves Natural Heritage Areas, and proposed Natural Heritage Areas.
	Compliance with the Pollution Reduction Programme for the Designated Shellfish Areas	<ul style="list-style-type: none"> WFD Waterbody Status for rivers, lakes, transitional and coastal water bodies. Annual Environment Reports for Irish Water WWTPs. 	EPA and DCC	<p>Every 5 Years</p> <p>Annual</p> <p>Ongoing</p>	<ul style="list-style-type: none"> Collaborate with Irish Water to ensure compliance with WWTP Wastewater Discharge Licence Emission Limit Values. Rigorous assessment of proposals for domestic WWT systems vis-a-vis EPA Code of

Environmental Category	Targets/Thresholds (e.g. Good Water Quality Status)	Indicators (e.g. WFD Water Quality Status)	Monitoring Agency (e.g. DCC, NPWS etc)	Monitoring Frequency (e.g. Annual)	Remedial Actions
		<ul style="list-style-type: none"> DCC compliance data arising from the National Inspection Plan for Domestic Wastewater Treatment Systems. Information from DCC Environment Section with regard to compliance with Section 4 Wastewater Discharge Licences. Quality of shellfish Growing Areas as reported by DEHLG. 			<p>Practice Wastewater Treatment Systems for Single Houses.</p> <ul style="list-style-type: none"> Ensure compliance with relevant Water Pollution legislation vis-a-vis domestic WWT systems through DCC environment section. Ensure compliance with Commercial Wastewater Discharges Licences to Groundwater issued under Section 4 of the Water Pollution Act through DCC environment section.
	<p>Maintain or Restore the favourable conservation status of the Freshwater Pearl Mussel of all affected Natura 2000 sites.</p> <p>Compliance with Sub-Basin Management Plan Catchment Plans for Freshwater Pearl Mussel.</p> <p>Compliance with the measures detailed in the River Basin Management Plan.</p>	<p>Freshwater Pearl Mussel status and Trends detailed in reports and conservation assessments prepared under Article 17 of the Habitats Directive.</p>	NPWS	Every 5 Years	
	<p>Ensure conservation of species protected under the</p>	<p>Species data available on the National Biodiversity Data Centre website:</p>	Heritage Council, Department	Ongoing	<p>Rigorous assessment of proposed development and enforcement of planning requirements/conditions related to permitted</p>

Environmental Category	Targets/Thresholds (e.g. Good Water Quality Status)	Indicators (e.g. WFD Water Quality Status)	Monitoring Agency (e.g. DCC, NPWS etc)	Monitoring Frequency (e.g. Annual)	Remedial Actions
	Wildlife Act 1976(as amended)	https://www.biodiversityireland.ie/	of Housing, Local Government and Heritage		developments in relation to species Protected Under the Wildlife Act.
	Conserve and restore biodiversity and ecosystem services in the wider countryside and the marine environment in accordance with 4 th National Biodiversity Action Plan	Species data available on the National Biodiversity Data Centre website: https://www.biodiversityireland.ie/	Heritage Council, Department of Housing, Local Government and Heritage	Ongoing	Ensure minimal impact on existing biodiversity and provision of additional biodiversity assets through the rigorous protection of biodiversity in the development management and planning enforcement systems.
Population and Human Health	Increase population in Donegal in accordance with growth projections set out in the NPF Implementation Roadmap.	Census Results for Donegal	CSO	Every 5 Years	<ul style="list-style-type: none"> • Ensure full implementation of the Housing for All Plan at the local level including as appropriate the utilisation of site activation measures (e.g. Compulsory Purchase Orders).
	Growth in employment opportunities	Employment Growth	CSO	Monthly	<ul style="list-style-type: none"> • Ensure delivery of key transport infrastructure projects (e.g. TEN-T PRIPD, sustainable and active travel projects in settlements) • Ensure implementation of key urban regeneration projects.

Environmental Category	Targets/Thresholds (e.g. Good Water Quality Status)	Indicators (e.g. WFD Water Quality Status)	Monitoring Agency (e.g. DCC, NPWS etc)	Monitoring Frequency (e.g. Annual)	Remedial Actions
					<ul style="list-style-type: none"> Collaborate with Irish Water to ensure delivery of the requisite Water and Wastewater infrastructure to facilitate new development. Review spatial allocation of residential and general employment lands.
	Promotion of Social Inclusion and reduction in social deprivation.	<ul style="list-style-type: none"> Mix of housing types, tenures, densities, and size (including proportion of social and affordable housing) in newly permitted developments. Distance from newly permitted residential areas to local services (e.g. schools, neighbourhood centre, healthcare facilities etc). 	DCC and Department of Housing,	Annual	<ul style="list-style-type: none"> Ensure appropriate mix of housing types, tenures densities and sizes (including the provision of social and affordable housing) is provided in suitably located residential areas through the Development Management process. Ensure deliver of the Housing For All plan at the local level including provision of social and affordable housing projects. Utilise state funding mechanisms such as the Buy and Renew Scheme to refurbish vacant housing for social housing use.
	Growth in active travel	Proportion of people walking and cycling to work/school etc in Donegal.	DCC, CSO		Ensure delivery of walking and cycling infrastructure within settlements.
	Compliance with the European Drinking Water Directive.	EPA Annual Drinking Water Quality Reports	EPA	Annual	Collaborate with Irish Water with regard to delivering the infrastructure necessary to improve drinking water supplies.

Environmental Category	Targets/Thresholds (e.g. Good Water Quality Status)	Indicators (e.g. WFD Water Quality Status)	Monitoring Agency (e.g. DCC, NPWS etc)	Monitoring Frequency (e.g. Annual)	Remedial Actions
	Limit Noise Pollution	Noise Mapping prepared for the Draft Donegal Noise Action Plan 2018-2023.	DCC	Every 5 Years	Ensure full implementation of the measures contained in the Draft Donegal Noise Action Plan 2018-2023 as appropriate and where practicable.
	Air Quality	See Section on Air Quality			
	Water Quality	See Section on Water Quality			
Soil	To Protect Soils and Geology	EPA/Teagasc Soil Mapping Project. Geological Heritage Sites	Teagasc, Geological Survey of Ireland		Ensure minimal impact on soils and geology through rigorous assessment of new development proposals within the development management system.
Water	<ul style="list-style-type: none"> Compliance with the Water Framework Directive in respect of surface waters, transitional bodies and ground water including achieving 'good' status in all waters and otherwise ensuring that water quality does not deteriorate. Compliance with the Emission Limit Values for the Wastewater Treatment Plants Compliance with individual Commercial Wastewater Discharge 	<ul style="list-style-type: none"> Water Framework Directive Surface Water and At Risk Status for rivers, lakes, transitional and coastal water bodies. Annual Environment Reports for WWTPs. DCC compliance data arising from the National Inspection Plan for Domestic Wastewater Treatment Systems. DCC Compliance data with regard individual Commercial Wastewater Discharge Licences to Groundwater issued under 	<ul style="list-style-type: none"> EPA and DCC Irish Water DCC DCC 	<ul style="list-style-type: none"> Every 5 Years Annual Ongoing Ongoing 	<ul style="list-style-type: none"> Collaborate with Irish Water to ensure compliance with WWTP Wastewater Discharge Licence Emission Limit Values. Rigorous assessment of proposals for new domestic and commercial independent WWT systems vis-a-vis relevant EPA Code of Practices. Ensure compliance with relevant Water Pollution legislation vis-a-vis existing domestic WWT systems through DCC environment section. Ensure compliance with individual Commercial Wastewater Discharge Licences to Groundwater issued under Section 4 of the

Environmental Category	Targets/Thresholds (e.g. Good Water Quality Status)	Indicators (e.g. WFD Water Quality Status)	Monitoring Agency (e.g. DCC, NPWS etc)	Monitoring Frequency (e.g. Annual)	Remedial Actions
	Licences to Groundwater issued under Section 4 of the Water Pollution Act 1977.	<p>Section 4 of the Water Pollution Act 1977.</p> <ul style="list-style-type: none"> Upgrading of existing and provision of new Wastewater Treatment Plants. 			<p>Water Pollution Act 1977 through DCC environment section.</p> <ul style="list-style-type: none"> Review approval of further independent WWT systems for commercial premises.
Air	<ul style="list-style-type: none"> Compliance with the Ambient Air Quality and Cleaner Air For Europe (CAFE) Directive including associated limit values for specific pollutants (e.g. PM_{2.5}, PM₁₀ and SO₂) Compliance with the WHO Air Quality Guidelines for specific pollutants 	<ul style="list-style-type: none"> Air Quality Index for Health (AQIH) rating for the Letterkenny and Bunrana Air Quality Monitoring station. PM_{2.5}, PM₁₀ and SO₂ emission levels as measured at the Air Quality Monitoring station. 	EPA	Ongoing	<ul style="list-style-type: none"> Reduce PM pollution by ensuring full implementation of the Smokey Coal ban including fuel supply, distribution and use of fuels through the DCC Environment Section. Reduce transport related air pollution by promoting more sustainable modes of transportation through full implementation of transport related elements of plan including: <ul style="list-style-type: none"> Compact growth through strict adherence to the zoning and policy framework within the plan. The provision of a local transport interchange hub. The delivery of a local public transport system.

Environmental Category	Targets/Thresholds (e.g. Good Water Quality Status)	Indicators (e.g. WFD Water Quality Status)	Monitoring Agency (e.g. DCC, NPWS etc)	Monitoring Frequency (e.g. Annual)	Remedial Actions
					<ul style="list-style-type: none"> ○ The provision of a local walking and cycling links including intra neighbourhood links. ○ Provision of public electric charging infrastructure.
Climate	<ul style="list-style-type: none"> • Contribute toward achievement of International, European and National Greenhouse Gas Emission targets (e.g. 51% reduction in Greenhouse gases by 2030 and a climate neutral economy by 2050) 	<ul style="list-style-type: none"> • National greenhouse gas emission data. • Increase in no. of persons commuting by sustainable travel modes (e.g. public transport walking and cycling). • Proportion of new residential units granted within walking (400m) or cycling (800m) distance of public transport or local services. • No. of developments permitted within Flood Zones A and B. • No. of developments permitted utilising SUDS flood attenuation solutions. 	EPA CSO DCC DCC DCC	Annual Ongoing Biennial Biennial Biennial	<ul style="list-style-type: none"> • Reduce transport related Greenhouse Gas Emissions by promoting more sustainable modes of transportation through full implementation of transport related elements of plan including: <ul style="list-style-type: none"> ○ Compact growth through strict adherence to the zoning and policy framework within the plan. ○ The provision of a local transport interchange hub. ○ The delivery of a local public transport system. ○ The provision of a local walking and cycling links including intra neighbourhood links.

Environmental Category	Targets/Thresholds (e.g. Good Water Quality Status)	Indicators (e.g. WFD Water Quality Status)	Monitoring Agency (e.g. DCC, NPWS etc)	Monitoring Frequency (e.g. Annual)	Remedial Actions
					<ul style="list-style-type: none"> ○ Provision of public electric charging infrastructure. ● Reducing greenhouse gas emissions in new residential and commercial developments through achieving greater energy efficiency in the siting, orientation and design of new developments. ● Carbon sequestration through the provision of tree planting and the retention of existing trees as an integral part of new developments as part of the development management process. ● Rigorous assessment of new development proposals vis-a-vis climate related flood risk (e.g. fluvial, pluvial and coastal). ● Enhanced use of SUDS flood attenuation measures through the development management process.
Material Assets	○ Delivery of strategic road projects (e.g. TEN-T PRIPD).	○ Progress on strategic road projects (e.g. TEN-T PRIPD)	DCC, OPW, TII and NWRA	Ongoing	○ Collaborate with strategic partners (e.g. TII, Department of Transport etc) to ensure full delivery of strategic roads projects.

Environmental Category	Targets/Thresholds (e.g. Good Water Quality Status)	Indicators (e.g. WFD Water Quality Status)	Monitoring Agency (e.g. DCC, NPWS etc)	Monitoring Frequency (e.g. Annual)	Remedial Actions
	<ul style="list-style-type: none"> ○ Delivery of new walking and cycling and public transport infrastructure including a local transport hub. ○ Delivery of key urban regeneration projects (e.g. SEED Project, Empowering Buncrana) ○ Delivery new of public and private housing units completed in line with growth ambition detailed in the Core Strategy. ○ No. and floor space of new retail and commercial developments. ○ Reduction in retail and commercial vacancy levels. ○ Extension of the water and wastewater 	<ul style="list-style-type: none"> ○ Progress on new walking and cycling and public transport infrastructure ○ Completion of key urban regeneration projects (e.g. SEED Project, Empowering Buncrana) ○ No. of new of public and private housing units completed. ○ No. and floor space of new retail and commercial developments. ○ Retail and commercial vacancy levels. ○ Upgrading of existing and provision of new Wastewater Treatment Plants. ○ Completion of the Flood Relief Scheme. ○ No. of buildings and infrastructure assets damaged by flooding. 			<ul style="list-style-type: none"> ○ Collaborate with strategic partners (e.g. National Transport Authority, Department of Transport) to ensure delivery of new walking and cycling and public transport infrastructure. ○ Utilise funding streams such as the Urban Regeneration and Development Fund to ensure delivery of key urban regeneration projects. ○ Ensure full implementation of the Council's public housing programme including collaborating with the Department of Housing. ○ Collaborate with private developers in relation to the provision of new private housing development including the provision of enabling infrastructure. ○ Collaborate with Irish Water in relation to the upgrading and provision of water and wastewater infrastructure to facilitate new residential and commercial development. ○ Collaborate with strategic partners to ensure delivery new green infrastructure.

Environmental Category	Targets/Thresholds (e.g. Good Water Quality Status)	Indicators (e.g. WFD Water Quality Status)	Monitoring Agency (e.g. DCC, NPWS etc)	Monitoring Frequency (e.g. Annual)	Remedial Actions
	<p>infrastructure to poorly or unserviced areas</p> <ul style="list-style-type: none"> ○ Provision of new green infrastructure ○ Delivery of the Flood Relief schemes. ○ Reduction in flood damage to buildings and infrastructure. 				<ul style="list-style-type: none"> ○ Collaborate with strategic partners (e.g. OPW) to ensure delivery of Flood Relief Schemes.
Cultural Heritage	<ul style="list-style-type: none"> ○ Protect and preserve architectural heritage including structures on the Record of Protected Structures, vernacular and historic structures. ○ Protect and enhance the Cathedral Quarter Architectural Conservation Area. 	<ul style="list-style-type: none"> ○ No. and condition of structures on the Record of Protected Structures and other vernacular and historic structures within Donegal. ○ No. and condition of historic structures within the Cathedral Quarter Architectural Conservation Area. ○ No. and condition of archaeological monuments within Donegal. 	DCC, Department of Housing, Local Government and Heritage	Ongoing	<ul style="list-style-type: none"> ○ Utilise built heritage funding (e.g. Built Heritage Investment Scheme and Historic Structures Fund) to maintain and improve the condition of existing built heritage. ○ Ensure compliance of new developments proposals with built heritage protection policies of the plan through the development management process. ○ Expeditious use of the planning enforcement system to prevent unauthorised loss of built and archaeological heritage.

Environmental Category	Targets/Thresholds (e.g. Good Water Quality Status)	Indicators (e.g. WFD Water Quality Status)	Monitoring Agency (e.g. DCC, NPWS etc)	Monitoring Frequency (e.g. Annual)	Remedial Actions
	<ul style="list-style-type: none"> o Protect and enhance the integrity of Archaeological Monuments. 				
Landscape	To protect and manage the local landscape including landscape and visual features elements and characteristics of specific relevance to Donegal	Impact of new developments on landscape and visual features elements and characteristics.	DCC	Biennial	<ul style="list-style-type: none"> o Ensure rigorous assessment of development proposals in Especially High Scenic Amenity and High Scenic Amenity areas. o Ensure compliance with the zonings objective of areas zoned Open Space and Recreation. o Review zonings on lands which spatially interact with key landscape and visual features, elements and characteristics as necessary.

Annex A: Assessment of CAP Actions

Likely to improve status of SEOs	↑	No likely interaction with /insignificant impact with SEOs	0
Probable conflict with SEOs – unlikely to be mitigated	↓	Potential conflict with SEOs – likely to be mitigated	⇅

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
Theme: Governance and Leadership (GL)	GOAL: The Council will show leadership and ambition by mainstreaming climate action in the planning and delivery of all Council services and by supporting and partnering with the community in delivering climate action within the County.									
Objectives										
GL1	Deliver the appropriate climate response on all Council owned assets to align with a trajectory to net zero emissions.	0	↑	0	0	↑	0	0	0	↑
GL2	Ensure that the Council and its staff are suitably structured and resourced to deliver and monitor the actions in this plan.	0	↑	0	0	↑	0	0	0	↑
GL3	Collaborate with the community, business and other stakeholders within the County and with neighbouring authorities to align on successful climate actions.	⇅↑	↑	⇅↑	⇅↑	↑	↑	↑0	⇅↑	↑
GL4	Align the actions for climate, energy, water and biodiversity within Council work programmes to maximise impact and efficiency.	⇅↑	↑	⇅↑	⇅↑	↑	↑	↑0	⇅↑	↑
<p>SEA comment: For many of these actions, the impacts are consistent with achieving the PHH, AQ C in particular as they relate to improving energy efficiency, GHG emissions through the local authority structure and governance. Actions around capacity building and training are positive for these SEOS directly and indirectly as they increase understanding about climate change and means to address same. For most of the other SEOS, impacts are neutral as they provide no direct landuse actions/impacts or are not identified in terms of location or area. The range of impacts will vary according to the potential use; however, for most of these SEOs, the impacts are considered to be addressed through mitigation at development management level and application of relevant mitigatory measures through the County Development Plan such as SO9 Ecological Impact Assessment, Appropriate Assessment, Strategic Environmental Assessment and Strategic Flood Risk Assessment.</p> <p>Actions are recommended for mitigation in response to SEA Scoping submissions and more broadly to improve environmental performance, and increase consideration of ecological effects, nature based solutions. These are below:</p>										

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
BE1	Reduce energy and electricity use at all municipal buildings, facilities and infrastructure (including lighting).	0	↑	0	0	↑	0	0	0	↑
BE2	Retrofit buildings as required to increase energy efficiency and reduce emissions.	0	↑	0	0	↑	0	0	0	↑
BE3	Ensure all new buildings in the County are designed and constructed in line with best energy efficient standards.	0	↑	0	0	↑	0	0	0	↑
BE4	Support the delivery of renewable electricity generation and transmission infrastructure within the County	↕	↑	↕	↕	↑	↑	↑0	↕	↑
BE5	Ensure that all Council owned buildings, facilities and infrastructure are resilient to the effects of climate change.	0	↑	0	0	↑	0	0	0	↑
BE6	Increase the resilience of our Built Heritage to climate change.	0	↑	0	0	↑	0	↑	↑	↑
BE7	Support the Office of Public Works in providing resilience to the effects of flooding now and in the future	↕	↑	↕	↕	↑	↑	↑↕	↕	↑

SEA comment: BE1 To BE 3 are positive in terms of energy efficiency and reduction of GHG so positive interactions for PHH, AQ CC and MA.
BE4 re energy transmission is essential to ensure the grid can support renewable energy and will be guided also by national and regional plans and programmes in this regard, as well as application of robust environmental protection measures such as BIO P 1 in the draft CDP.
Positive long term actions for BE6 for CH, L and SG in particular depending on sensitive approach to increase resilience of built heritage to climate change. Recent EPA Research¹ (2022) identifies the following priorities in terms of adaptation for the built environment and these should be integrated over the course of the CAP, this is particularly applicable for BE6 and BE7:

- Mainstreaming adaptation in the built environment. This includes prioritising adaptation as a critical second pillar of climate action; focusing on the full range of climate change risks (not simply flooding); integrating built environment adaptation with the wider land use system; capturing mitigation and adaptation benefits through holistic approaches; and focusing on the whole built environment and not only new-builds.
- Evidence and uncertainty in decision-making. Adaptation of the built environment requires a robust and geographically tailored evidence base; there is a need for granular and useable information on climate impacts. Uncertainty strengthens the case for early investment and points to adopting the precautionary approach, and further research is needed in relation to costs, responsibilities of key stakeholders, behaviour of building occupants and social vulnerability in relation to climate risks.
- Co-designing of adaptation interventions. This includes collaborative stakeholder engagement, the inclusion of climate scenarios as part of statutory public consultation and the testing of novel public engagement methods.
- Capacity-building requirements. This includes improving resourcing and institutional capacity, adopting new ways of working to avoid traditional siloed thinking and continued professional development and training for elected representatives.

¹ Built Environment Climate Resilience and Adaptation (2019-CCRP-DS.21) EPA Research Report. Mark Scott, Louise Burns, Mick Lennon and Oliver Kinnane. [Research_Report_418.pdf \(epa.ie\)](https://www.epa.ie/research/reports/Built_Environment_Climate_Resilience_and_Adaptation_2019-CCRP-DS.21.pdf)

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
Strategic Goal 4: Natural Environment and Infrastructure (NE)	GOAL: Promote and protect our environment, and its biodiversity and water catchments as key enablers of climate adaptation and mitigation across the County.									
Objectives										
NE1	Protect, conserve and enhance County Donegal's biodiversity and heritage.	↑	↑	↑	↑	↑	↑	↑	↑	
NE2	Comply with the Water Framework Directive and the River Basin Management Plan.	↑	↑	↑	↑	↑	↑	↑	↑	
NE3	Increase coastal resilience to the changing climate and support nature based solutions to avoid coastal squeeze and make space for nature.	↕	↑	↕	↕	↑	↑	↑↕	↕	↑
NE4	Support nature-based solutions to mitigate against and adapt to climate change, and to provide a further benefits such as biodiversity conservation, water security, and human well-being.	↑	↑	↑	↑	↑	↑	↑	↑	
<p>SEA Comment: these actions are broadly positive and consistent with all SEOS as they provide a key focus on improving, enhancing and arresting decline of quality of the environment. The actions are positive across all SEOS, as they provide for climate change mitigation and adaption but support a locally supported nature based solutions approach. NE 4 is supportive of nature based solutions and should interact with other actions such as BE7 Flood resilience. NE3 is recommended for additional mitigation to provide more focused response to environmental consideration, increase co benefits, by avoiding coastal squeeze and grey infrastructure approaches.</p>										
Strategic Goal 5: Community Resilience (CR)	Build capacity and readiness within the community to motivate demand for transformative climate action.									
Objectives										
CR1	Engage with all parts of the community to build capacity and readiness to effect transformative climate action and achieve a just transition.	0	↑	0	0	↑	0	0	0	↑
CR2	Increase climate literacy across the community through education and raising awareness on climate action and nature based solutions that provide co benefits for human health, water and wildlife	0	↑	0	0	↑	0	0	0	↑

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
CR3	Continue to support arts and heritage within the County as a tool to support education and awareness on climate action	0	↑	0	0	↑	0	0	0	↑
CR4	Ensure that all Council funding mechanisms are underpinned by strong carbon proofing requirements.	0	↑	0	0	↑	0	0	0	↑
SEA Comment: actions around awareness and communication can generate indirect positive effects across all SEOS in terms of education and understanding but most particularly in terms of PHH, AQ CC and inter- relationships. In turn these can inform proposals and actions that, subject to appropriate evidence based design can be positive across all SEOs also. Action CR2 are recommended for additional mitigation, to increase consideration of co benefits around nature based solutions. CR 4 is recommended for mitigation also to provide greater clarity ni terms of carbon proofing requirements.										
Strategic Goal 6: Sustainability & Resource Management (SR)	Support sustainable and circular initiatives and infrastructure within the County.									
Objectives										
SR1	Ensure that sustainable resource use is embedded in all Council operations and is a key determinant in all future Council procurement.	↑	↑	↑	↑	↑	↑	↑	↑	↑
SR2	Support businesses in accelerating climate action and sustainable practices	↑	↑	↑	↑	↑	↑	↑	↑	↑
SR3	Support the transition to a circular economy within the County.	↑	↑	↑	↑	↑	↑	↑	↑	↑
SR4	Support farmers in the shift toward low-carbon and climate-resilient agricultural practices	↑	↑	↑	↑	↑	↑	↑	↑	↑
SEA Comment: SR1is positive across all SEOS, as it provides for sustainable resource use and SR2 similarly supports action in this regard. SR4 support for farmers should allow for greater collaboration with LAWPRO and innovative place based actions such as seen in Inishowen Rivers Trust. Circular economy actions need targeted and innovate support and research and capacity building to advance from current low rates nationally.										
GOVERNANCE AND LEADERSHIP										
GL 1.3	Implement a monitoring regime and revise as needed to tackle emerging climate action priorities in a transparent decision making process.	0	↑	0	0	↑	0	0	0	↑

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
GL 1.4	Develop a methodology for reporting on Climate Action at SPC, MD and Plenary meetings.	0	↑	0	0	↑	0	0	0	↑
GL 1.5	Implement Green Public Procurement on Council projects.	0	↑	0	0	↑	0	0	0	↑
GL 1.6	Develop a Climate Action Checklist for all DCC Climate Actions and Monitor Progress on Implementation.	0	↑	0	0	↑	0	0	0	↑
GL 1.7	Participate in the EU Project "Own Your Own SECAP" to gain support / assistance in developing our Sustainable Energy and Climate Action Plan (SECAP) and highlighting measures that have positive effects on climate mitigation, adaptation and energy poverty.	0	↑	0	0	↑	0	0	0	↑
GL 2.1	Promote Climate Action as a stand alone agenda item at relevant meetings.	0	↑	0	0	↑	0	0	0	↑
GL2.2	Implement Climate Action engagement programme in the workplace for all staff and elected members.	0	↑	0	0	↑	0	0	0	↑
GL2.3	Implement the organisational structures required within the Council to ensure delivery of this plan and maintain the appropriate climate action policy and culture throughout.	0	↑	0	0	↑	0	0	0	↑
GL2.4	Liaise with national organisations to devise and deliver accredited training for local authority staff on biodiversity and climate.	0	↑	0	0	↑	0	0	0	↑
GL2.5	Appoint a 'Climate Champion' for each department within the Council to act as an interface between each section and the climate team.	0	↑	0	0	↑	0	0	0	↑
GL3.1	Continue cross-border collaboration and partnership with Derry City and Strabane District Council in achieving collective ambition on climate action by working to deliver the North West Climate Action Framework.	0	↑	0	0	↑	0	0	0	↑
GL 3.2	Complete the establishment of North West Regional Energy Office as a vehicle for delivering on DCC's commitment to work alongside Derry City and Strabane District Council, as detailed within the North-West Regional Energy Strategy.	0	↑	0	0	↑	0	0	0	↑

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
GL3.3	Work with our partners on the Local Development Strategy 2023-2027 to fund and deliver a range of Climate Change training and projects with the community.	↕	↑	↕	↕	↑	0	0	0	↑
GL 3.4	Partner with the Sustainable Energy Authority of Ireland (SEAI) to provide bridging loans to Sustainable Energy Communities so that they can avail of SEAI Grants for preparing Energy Master Plans.	0	↑	0	0	↑	0	0	0	↑
GL 3.5	Raise awareness of external funding opportunities to implement climate actions and contribute to achieving overall goals of this plan.	0	↑	0	0	↑	0	0	0	↑
GL4.1	Promote the National Framework Group Water Scheme (GWS) Policy on Climate Action	0	↑	0	0	↑	0	0	0	↑
GL4.2	Ensure climate action relating to heritage and biodiversity is included in staff induction training for indoor and outdoor staff and elected representatives.	0	↑	0	0	↑	0	0	0	↑
GL4.3	Utilise the Local Economic and Community Plan (LECP) as a catalyst for Climate Change in Donegal by providing strategic support for climate adaptation and mitigation projects	0	↑	0	0	↑	0	0	0	↑
Most actions relate to awareness, capacity building and support for existing plans/programmes. No direct landuse effects are identified for several actions and positive actions with PHH, AQ CC in particular										
	TRANSPORT									
TR1.1	Reduce the emission levels of Council's owned and hired transport fleet to meet the required reduction of 50% of the 2018 baseline.	0	↑	0	0	↑	0	0	0	↑
TR 1.2	Roll out 'Eco Driver Training' to Plant Operators within the Council	0	↑	0	0	↑	0	0	0	↑
TR2.1	Support the establishment of a comprehensive and integrated network of remote working hubs throughout the County to support remote working and reduce commuter travel in line with the National Remote Work Strategy.	0	↑	0	0	↑	0	0	0	↑

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
TR2.2	Implement Blended Working Policy for Council staff in accordance with Government guidance.	0	↑	0	0	↑	0	0	0	↑
TR2.3	Deliver and maintain multiple Active Travel projects in the County.	↕	↑	↕	↕	↑	↑	↑↕	↕	↑
TR2.4	Design a network of segregated, attractive and safe Active Travel paths as part of the TEN-T Public Road Improvement Project (Donegal) to encourage a greater uptake of walking and cycling.	↕	↑	↕	↕	↑	↑	↑↕	↕	↑
TR2.5	Expand the greenway network in the County establishing linkages with towns and villages in line with the strategic national cycle network.	↕	↑	↕	↕	↑	↑	↑↕	↕	↑
TR 2.6	Focus on increasing safe modes of transport in Letterkenny Town to provide practical alternatives to car use for short journeys including design and development of future road infrastructure projects e.g. the Letterkenny Southern Network Project.	↕	↑	↕	↕	↑	↑	↑↕	↕	↑
TR 2.7	Support and advocate for change in travel behaviour amongst their communities through public engagement and community liaison activities.	0	↑	0	0	↑	0	0	0	↑
TR3.1	Advocate for the provision of a rail link between: a) Letterkenny and Derry; and b) Letterkenny and Sligo.	↕	↑	↕	↕	↑	↑	↑↕	↕	↑
TR3.2	Support the delivery of enhanced public transport services within the County <i>including a centrally-located transport hub in Letterkenny to serve the region and the extension of the national rail network to Letterkenny.</i>	↕	↑	↕	↕	↑	↑	↑↕	↕	↑

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
TR3.3	Support the National Sustainable Mobility Policy to increase provision of park and ride/share at transport interchanges and community hubs and support the development of Town Bus Services to maximise connectivity for the highest number of residents.	0	↑	0	0	↑	0	0	0	↑
TR3.4	Support the delivery of enhanced public transport and transport infrastructure in rural areas <i>including the projects listed for Donegal under the Connecting Ireland Rural Mobility Plan (Carndonagh to Buncrana).</i>	↕	↑	↕	↕	↑	↑	↕↕	↕	↑
TR3.5	Support the design of a network of Modal Hubs within the TEN-T Public Road Improvement Project for seamless and convenient transition between Active Travel, Public Transport and Private Vehicle, and to encourage Modal Shift.	↕	↑	↕	↕	↑	↑	↕↕	↕	↑
TR 4.1	Develop an EV charging infrastructure strategy for County Donegal In line with ZEVI guidance	0	↑	0	0	↑	0	0	0	↑
TR4.2	Support the design a network of strategically placed EV charging points along the proposed TEN-T Public Road Improvement Project network to encourage greater uptake of EV private vehicles and satisfy the requirements of EU Alternative Fuel Infrastructure Regulation.	↕	↑	↕	↕	↑	↑	↕↕	↕	↑
<p>SEA Comment: A number of actions whilst positive in providing for modal shift, active travels, safer spaces for pedestrians and cyclists are identified as giving rise to landuse effects and would require mitigation through environmental and ecological surveys, assessment, development consent and application of appropriate assessments including EIAR, AA, EclA as appropriate. The new actions around compliance with CDP and requirement for environmental and ecological assessments provides sufficient mitigation.</p> <p>Re Ten T- This project is currently at Phase 3 Design and Environmental Evaluation. The finalised design of the project will be subject to detailed project level EIAR. However, the Variation to the CDP 2018-2024 in respect of said project, which provided the strategic planning framework for the project, was subject to both an Environmental Report and Natura Impact Report. Said Environmental Report found that the strategic objective providing for the overall project did not identify any conflict with any Strategic Environmental Objective (SEO) which could not be mitigated to an acceptable level and otherwise found a number of uncertain impacts vis-a-vis said SEOs.</p> <p>Said Natura Impact Report concluded beyond reasonable scientific doubt that Variation would not adversely affect the integrity of any Natura 2000 site having regard to the mitigation measures outlined in the report.</p>										
BUILT ENVIRONMENT										
BE1.1	Deliver actions relating to energy management in all council divisions as per Energy Management Team Opportunities Register	0	↑	0	0	↑	0	0	0	↑

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
BE1.2	Deliver the ongoing public lighting LED Retrofit and Energy Reduction Programme, while having due regard to impact of light used on biodiversity.	↕	↑	↕	0	↑	0	0	0	↑
BE1.3	Support ongoing DCC project to consolidate our Corporate ICT switching, storage and computing infrastructure.	0	↑	0	0	↑	0	0	0	↑
BE1.4	Reduce CO ₂ emissions in all four DCC Leisure Centres via Energy Efficiency Projects to deliver more sustainable and climate friendly facilities.									
BE1.5	Implement the Interreg funded INNOCAP project to build capacity within the public sector on disruptive technologies and develop a pilot implementation project relating to the Climate Action Plan	0	↑	0	0	↑	0	0	0	↑
BE1.6	Implement Power Management Solution to automatically shut down devices after working hours so that they are not left on without any intervention.	0	↑	0	0	↑	0	0	0	↑
BE1.7	Work with partners to deliver Intelligent Cities Challenge in Donegal including securing Local Green Deal.	0	↑	0	0	↑	0	0	0	↑
BE 1.9	Complete Feasibility Assessment for the decarbonization of 15 public buildings in Donegal through the North West Decarb Project	0	↑	0	0	↑	0	0	0	↑
BE 1.10	Seek funding opportunities to carry out the recommendations of the North West Decarb Project including capital works.	↕	↑	↕	0	↑	0	0	0	↑
BE2.1	Implement Energy Efficiency and Fabric Upgrade Programmes for existing social homes to achieve upgrade to a minimum BER B2 rating, reduce GHG emissions and energy consumption; and address fuel poverty.	0	↑	0	0	↑	0	0	0	↑
BE2.2	Upgrade existing social housing units that are damaged by defective concrete blocks to a minimum BER B2 to reduce GHG emissions, energy consumption and address fuel poverty.	0	↑	0	0	↑	0	0	0	↑

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
BE2.3	Work towards affordable homes that area made available for purchase or for rent by the Council under "Housing for All" having a minimum BER B2 rating.	0	↑	0	0	↑	0	0	0	↑
BE2.4	Promote the National Retrofitting Scheme to private householders to highlight the package of supports that make it easier and more affordable to undertake home energy upgrades.	0	↑	0	0	↑	0	0	0	↑
BE 2.5	Continue work on the EU LIFE Local Energy Agencies in Peripheral Regions (LEAP) project to look at feasibility of housing retrofits in Donegal.	0	↑	0	0	↑	0	0	0	↑
BE 2.6	Promote the adaptative re-use of existing buildings in terms of developing community spaces under respective funding programmes such as Town and Village, Community Recognition Fund and RRDF.	0⇅	↑	0	↑	↑	0	0	0	↑
BE 2.7	Renovation of an existing Administration Building (former Army Barracks), to bring it back into use as DCC offices and achieve a BER B2 rating.	0⇅	↑	0	↑	↑	0	0	0	↑
BE 2.8	Continue participation in the European City Facility (EUCF) Project to develop an investment concept for the decarbonisation of the Energy systems across the North West Region	0⇅	↑	0	↑	↑	0	0	0	↑
BE 2.9	Conduct research and develop case studies from the Council's historic building stock that undertake pre- and post- works energy performance assessments and devise appropriate and sensitive retrofitting/energy upgrading of traditional buildings to inform works to other Council-owned properties and to guide private owners.	0⇅	↑	0	↑	↑	0	0	0	↑
BE3.1	Work towards new build social housing units provided by Donegal County Council meeting a minimum A2 BER Rating to reduce GHG emissions, energy consumption and address fuel poverty.	0⇅	↑	0	↑	↑	0	0	0	↑
BE3.2	Work towards new buildings (dwellings, commercial and public) are designed and constructed to Nearly Zero Energy Building (NZEB) standard by 2025 and Zero Emission Building (ZEB) standard by 2030.	0⇅	↑	0	↑	↑	0	0	0	↑

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
BE3.3	Require, where feasible, that new developments are sited and designed to prioritise safe, direct, and attractive access for pedestrians and cyclists.	0↕	↑	0	↑	↑	0	0	0	↑
BE4.1	Implement the Interreg funded project COPOWER on developing a community based virtual power plant which assists in balancing electricity demand and production. It will create an opportunity to digitalise, decarbonise and decentralise local energy system.	0↕	↑	0	↑	↑	0	0	0	↑
BE 4.2	Complete the Interreg funded ShareRES project to consider the benefits of Community Power - SHARing REnewable eneRgy through Energy communitiesS	0↕	↑	0	↑	↑	0	0	0	↑
BE 4.3	Prepare an overall Renewable Energy Strategy for the County to support sustainable development of onshore wind and solar power within the County.	↕	↑	0↕	↕	↑	↕	↕	0↕	↑
BE 4.4	Support local community-based renewable energy projects and new micro-generation and small-scale generation renewable energy projects.	↕	↑	0↕	↕	↑	↕	↕	0↕	↑
BE 4.5	Advocate for the ongoing expansion and improvements to the electricity grid infrastructure within the County to support renewable generation and supply.	↕	↑	0↕	↕	↑	↕	↕	0↕	↑
BE 4.6	Work with key partners and stakeholders to support the development of the offshore renewable energy sector in Donegal.	↕	↑	0↕	↕	↑	↕	↕	0↕	↑
SEA comment: Adaptive reuse is positive as it supports circular economy and avoids use of greenfield sites, support towns centre activity and is positive for SG1, AQ CC and PHH SEOS. In this regard the research by the EPA (2022) should be applied and considered for adaptive reuse generally and integrated over the lifetime of the plan: Recent EPA Research ² (2022) identifies the following priorities in terms of adaptation for the built environment and these should be integrated over the course of the CAP, <ul style="list-style-type: none"> Mainstreaming adaptation in the built environment. This includes prioritising adaptation as a critical second pillar of climate action; focusing on the full range of climate change risks (not simply flooding); integrating built environment adaptation with the wider land use system; capturing mitigation and adaptation benefits through holistic approaches; and focusing on the whole built environment and not only new-builds. 										

² Built Environment Climate Resilience and Adaptation (2019-CCRP-DS.21) EPA Research Report. Mark Scott, Louise Burns, Mick Lennon and Oliver Kinnane. [Research_Report_418.pdf \(epa.ie\)](https://www.epa.ie/research/reports/Built_Environment_Climate_Resilience_and_Adaptation_2019-CCRP-DS.21.pdf)

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
<ul style="list-style-type: none"> Evidence and uncertainty in decision-making. Adaptation of the built environment requires a robust and geographically tailored evidence base; there is a need for granular and useable information on climate impacts. Uncertainty strengthens the case for early investment and points to adopting the precautionary approach, and further research is needed in relation to costs, responsibilities of key stakeholders, behaviour of building occupants and social vulnerability in relation to climate risks. Co-designing of adaptation interventions. This includes collaborative stakeholder engagement, the inclusion of climate scenarios as part of statutory public consultation and the testing of novel public engagement methods. Capacity-building requirements. This includes improving resourcing and institutional capacity, adopting new ways of working to avoid traditional siloed thinking and continued professional development and training for elected representatives. 										
New Renewable energy strategy would require SEA and AA and offshore or renewable energy would require assessment through the relevant planning and consenting regime.										
BE5.1	Be proactive in providing flood resilience to municipal infrastructure by conducting flood risk assessments and seeking OPW Funding through their Minor Works programme where necessary and applying nature based solutions where possible	↕	↑	↕	↑↕	↑	↕	↕	↕	↑
BE5.2	Deliver 'Climate Adaptation & Resilience' projects on the Regional and Local Roads network, to improve the resilience and sustainability of the regional and local road network and minimise activities that are contributors to climate change.	↕	↑	↕	↑↕	↑	↕	↕	↕	↑
BE5.3	Ensure that the design of future municipal infrastructure considers flood resilience applying nature based solutions where necessary and that they do not increase flood risk elsewhere.	↕	↑	↕	↑↕	↑	↕	↕	↕	↑
BE 5.4	Continue to deliver on the Restoration Improvement (RI) and Restoration Maintenance (RM) Programmes on the public road network.	↕	↑	↕	↑↕	↑	↕	↕	↕	↑
BE 5.5	Continue to deliver on the Winter Maintenance Programmes for public roads and the introduction of Brine to pre-wet salt.	↕	↑	↕	↑↕	↑	↕	↕	↕	↑
SEA comment: BE 5.1 and BE 5.3 identified for additional mitigation measures to highlight the role nature based solutions can contribute to flood risk and flood resilience. Other measures including application of pre-wet salt is more efficient and effective in terms of adherence to the road and therefore reduces run off to receiving environment and habitats. Pre-wet gives a direct salt saving of 25%. • Full-wet gives a direct salt saving of 77%. • Full wet provides a layer of protection between ice/snow and road surfaces.										
BE6.1	Support national and regional initiatives to build climate resilience of architectural and archaeological heritage in public and private ownership e.g the Community Monuments Fund, Historic Towns	↕	↑	↕	↑↕	↑	↕	↕	↕	↑

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
NE1.1	Prepare and begin to implement a Biodiversity Action Plan (including a Pollinator Plan) for the County to protect and enhance local biodiversity including climate-resilient measures	↕	↑	↕	↕	↑	↕	↕	↕	↑
NE1.2	Support national and regional initiatives to implement the County Heritage Plan to record, conserve and raise awareness of all aspects of built, natural, archaeological and cultural heritage.	↑	↑	↑	↑	↑	↑	↑	↑	↑
NE1.3	Support national and regional initiatives to undertake audit of local authority land and assess biodiversity potential with respect to climate considerations.	↑	↑	↑	↑	↑	↑	↑	↑	↑
NE1.4	Support national and regional initiatives to conduct county wetland survey and start to implement recommendations in terms of conservation and restoration of wetlands.	↑	↑	↑	↑	↑	↑	↑	↑	↑
NE1.5	Support the incorporation of net gain biodiversity enhancement as part of the Landscape and Drainage Design of the TEN-T Public Road Improvement Project (Donegal) using biodiversity corridors, landscaping and tree planting and biodiversity rich wetlands.	↕	↑	↕	↕	↑	↕	↕	↕	↑
NE1.6	Support national and regional initiatives to strengthen ecological expertise in the Council.	↑	↑	↑	↑	↑	↑	↑	↑	↑
NE1.7	Support national and regional initiatives in the rehabilitation of peatland as a carbon sink and provide habitat for biodiversity.	↑	↑	↑	↑	↑	↑	↑	↑	↑
NE1.8	Reduce the extent of grass cutting carried out in public spaces, to preserve biodiversity and encourage growth of native plants to be undertaken in line with guidance from the All Ireland Pollinator Plan									
<p>SEA comment: Actions NE 1.1. is recommended for mitigation to provide greater focus and specificity on measures that can be included within the Biodiversity Action Plan, and should also provide for monitoring of post application submissions to allow data collection of species and habitats. The additional text has now been integrated to the body of the text in the CAP to reflect these recommendations. Similarly NE1.8 provides for reference to the All Ireland Pollinator Plan that provides significant support and detail on the most suitable approaches to managing grasslands for habitats.</p> <p>Other actions such as NE 1.7 and NE 1.3 are positive across all SEOs</p> <p>Action NE 1.5 supports biodiversity net gain but this should be undertaken in line with Chartered Institute of Ecology and Environmental Management guidance to be undertaken properly, professionally and robustly:</p>										

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
<ul style="list-style-type: none"> • Biodiversity Net Gain – Good practice principles for development (2016) • Biodiversity Net Gain – A practical guide (2019) • Biodiversity Net Gain – Case studies (2019) – also available individually on 										
NE2.1	Forestry - Work with Coillte to promote and implement appropriate water protection and integration of biodiversity measures in forestry catchments where potential for impact on waterbody (e.g. sediment, pesticides , colour, organic matter and high rainfall events in line with Water Framework Directive objectives.	⇅	↑	⇅	⇅	↑	⇅	⇅	⇅	↑
NE2.2	Septic Tanks - Work with the public to promote water protection and integration of biodiversity by issuing promotional material to regulated private water suppliers, well grant applicants and homeowners due for Septic Tank Inspections.	0	↑	0↑	0↑	↑	0	0	0	↑
NE2.3	Carry out a review of Section 4 Discharge to Water Licences to determine if they are fit for purpose to meet projected climate change related risks such as hydrological changes and water temperature increases.	0	↑	0↑	0↑	↑	0	0	0	↑
NE2.4	Support the integration of improved water protection design solutions within the TEN-T Public Road Improvement Project, incorporating new road drainage treatment prior to discharge to receiving watercourses.	⇅	↑	⇅	⇅	↑	⇅	⇅	⇅	↑
NE3.1	Support national and regional agencies to develop a Designated Marine Area Plan, off the coast of Donegal and the North West region, in line with provisions in the National Marine Planning Framework and Project Ireland 2040.	⇅	↑	⇅	⇅	↑	⇅	⇅	⇅	↑
NE3.2	Undertake Coastal Erosion & Flood Risk Management (CFERM) Studies in vulnerable coastal areas and follow up on recommendations	⇅	↑	⇅	⇅	↑	⇅	⇅	⇅	↑
NE 4.1	Develop a protocol for the application of NBS to Council projects and provide training on same	⇅	↑	⇅	⇅	↑	⇅	⇅	⇅	↑

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
NE4.2	Within the development of Flood Relief Schemes, identify opportunities for Nature Based Solutions as a possible flood relief measure alone, or in combination with other types of flood defence.	↑	↑	↑	↑	↑	↑	↑	↑	↑
NE4.3	Based on Nature Based Solutions opportunity mapping, assess feasibility and consider multi benefits of implementation within an overall NBS road map.	↑	↑	↑	↑	↑	↑	↑	↑	↑
NE4.4	Based on NBS road maps, seek funding opportunities for implementing NBS in appropriate catchments throughout Donegal.	↑	↑	↑	↑	↑	↑	↑	↑	↑
NE4.5	Integrate Nature based design solutions in the form of SuDs within the TEN-T Priority Route Improvement Donegal Project	↑	↑	↑	↑	↑	↑	↑	↑	↑
NE 2.1 and 4.1 recommended for mitigation to strengthen environmental protection, overall, 55.7% of monitored river bodies, 20.7% of lake water bodies, and 20.5% of Transitional and Coastal water bodies have a less than good status and agriculture, that hydromorphology, forestry, anthropogenic pressures, urban wastewater and domestic wastewater are the most significant pressures affecting WFD 'At Risk' waterbodies in Donegal, therefore the role of Coillte and impacts of forestry on water quality and at catchment level merits additional mitigation, as does forestry practices more generally on peat soils.										
COMMUNITY RESILIENCE										
CR1.1	Ensure that residents of Donegal have the opportunity to meaningfully engage in, and shape the development of climate action policies and projects delivered by Donegal County Council.	0	↑	0	0	↑	0	0	0	↑
CR1.2	Provide a point of contact to assist GAA Green Club Programme to implement projects that contribute to the objectives of a national climate initiative.	0	↑	0	0	↑	0	0	0	↑
CR1.3	Provide dedicated Climate Action information on Donegal County Council website.	0	↑	0	0	↑	0	0	0	↑
CR1.4	Work with local partners to develop Community Gardens in Donegal to support reducing greenhouse gases, improving food security, improving biodiversity and adapting to climate change impacts	0	↑	0	0	↑	0	0	0	↑
CR1.5	Support the delivery of Donegal County Council PEACEPLUS projects in line with the UN Agenda 2030 Sustainable Development Goals.	0	↑	0	0	↑	0	0	0	↑

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
CR1.6	Work with partners in the Public Participation Network (PPN) to enhance awareness and understanding of climate issues within the wider community sector including for example, those relating to: <ul style="list-style-type: none"> · water conservation/ rainwater harvesting, nature-based solutions, · circular economy, · active travel, · sustainable event planning 	0	↑	0	0	↑	0	0	0	↑
CR1.7	Support national and regional initiatives to compile an Audit of Private Group Water Schemes to review energy use, leak management and long term Sustainability.	0	↑	0	0	↑	0	0	0	↑
CR2.1	Support initiatives to promote and raise awareness of biodiversity and climate issues, natural capital and ecosystems-based adaptation.	0	↑	0	0	↑	0	0	0	↑
CR2.2	Utilise the Public Library Network as a community hub to support national, regional and local awareness campaigns of Climate Action Plans.	0	↑	0	0	↑	0	0	0	↑
CR2.3	Support national and regional initiatives to develop countywide climate related educational and awareness programme to include information events, communication campaigns and guidance documents.	0	↑	0	0	↑	0	0	0	↑
CR2.4	Partner with research institutes to explore innovative climate adaptation and mitigation research projects that also achieve circular economy objectives.	0	↑	0	0	↑	0	0	0	↑
CR2.5	Support National and Regional agencies to roll out educational projects in schools and Community events as opportunities to disseminate Climate Change information to the public.	0	↑	0	0	↑	0	0	0	↑
CR 2.6	Increase awareness and practice of regenerative tourism in our County, to enable visitors to have a positive impact on their holiday destination.	0	↑	0	0	↑	0	0	0	↑

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
CR3.1	Support National and Regional agencies to prepare programmes to raise awareness of climate action within Cultural and Biodiversity Services and Creative Arts.	0	↑	0	0	↑	0	0	0	↑
CR3.2	Support National and Regional agencies to identify sites/areas where loss due to climate change is likely or inevitable, carry out recording of architectural, archaeological and cultural heritage at these sites to ensure preservation by record, and palliative curation to assist communities with loss.	0	↑	0	0	↑	0	0	0	↑
CR4.1	Ensure that Donegal County Council's Business Continuity Plan is reviewed on a regular basis to reflect climate change.	0	↑	0	0	↑	0	0	0	↑
CR4.2	Administer the Community Climate Action Fund to support communities to deliver localised climate action projects.	0	↑	0	0	↑	0	0	0	↑
CR4.3	Include 'Sustainability and Climate Change' scoring on relevant grant assessments to ensure that community groups/ stakeholders consider and incorporate Climate Mitigation and Adaptation in all their grant funded activities.	0	↑	0	0	↑	0	0	0	↑
SEA comment most of the actions relate to support, awareness, training and capacity building and are not identified, in and of themselves as generating landuse effects										
SUSTAINABILITY AND RESOURCE MANAGEMENT										
SR1.1	Support National and Regional agencies to deliver energy efficiency refurbishment of pump stations within Taking in Charge Programme for Group Water Schemes (GWS).	0	↑	↑	0	↑	0	0	0	↑
SR1.2	Support National and Regional agencies to deliver Water Conservation on Group Water Schemes (GWS) under the Taking in Charge (TIC) Programme for GWS.	0	↑	↑	0	↑	0	0	0	↑
SR1.3	Integrate Green Public Procurement within multi-annual frameworks for rural water programme (MARWP) & Environmental Infrastructure Projects.	0	↑	↑	0	↑	0	0	0	↑

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
SR1.4	Support national, regional and local initiatives to integrate climate change considerations at the planning and development stage for festivals/events.	0	↑	↑	0	↑	0	0	0	↑
SR 1.1 and 1.2 re positive as they support water conservation and increased energy resilience of pump stations which may be adversely effected through extreme weather events including storms and power outages; in turn this could lead to failure of water treatment and or usppoly with negative impacts on PHH, MA seos and W SEOs.										
SR 2.1	Develop and provide a series of green & climate-based workshops for owner managers of indigenous Donegal companies	0	↑	↑	0	↑	0	0	0	↑
SR 2.2	Provide assistance to Enterprises in their investment in equipment & technologies to reduce their impact on the environment	0	↑	↑	0	↑	0	0	0	↑
SR 2.3	Provide Energy Management Training programmes to businesses in Donegal to help them reduce their carbon footprint	0	↑	↑	0	↑	0	0	0	↑
SR 2.4	Deliver programmes to assist businesses in Donegal improve the environmental profile of their business in the marketplace	0	↑	0	0	↑	↑	0	0	↑
SR 2.5	Support Small and Medium Enterprises (SMEs) in the tourism sector to embrace sustainability practices in their businesses through the EU funded Turbo Project.	0	↑	0	0	↑	↑	0	0	↑
SR 3.1	Promote best practice construction and demolition waste management e.g. use of recycled aggregates and encourage establishment of private recycling facilities where appropriate.	0	↑	0	↑	↑	↑	0	0	↑
SR 3.2	Improve waste segregation at source in Council operations.	0	↑	0	↑	↑	↑	0	0	↑
SR 3.3	Work towards the elimination of CO ₂ emission due to Leachate Transportation from closed landfill sites and develop a program for reduction.	0	↑	0	↑	↑	↑	0	0	↑
SR 3.4	Support the increase in water fountains to reduce single use plastic waste.	0	↑	0	↑	↑	↑	0	0	↑

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
SR 3.5	Support Council tenants to achieve improved waste segregation and climate objectives.	0	↑	0	↑	↑	↑	0	0	↑
SR 3.6	Support community sustainable waste management initiatives and circular economy initiatives e.g. re-use projects.	0	↑	0	↑	↑	↑	0	0	↑
SR 3.7	Continue to work as part of the Connaught Ulster Waste Enforcement Regional Local Authority (WERLA) office to implement and encourage positive climate action practices.	0	↑	0	↑	↑	↑	0	0	↑
SR 3.8	Promote adequate space for appropriate waste management in new developments.	0	↑	0	↑	↑	↑	0	0	↑
SR 3.9	Align Council waste contracts with the waste hierarchy in accordance with the National Waste Management Plan for a Circular Economy.	0	↑	0	↑	↑	↑	0	0	↑
SR 3.10	Support a wider roll out of segregated brown bin collection systems to capture this resource for treatment through Anaerobic Digestion and composting in line with the National Waste Management Plan for a Circular Economy.	0	↑	0	↑	↑	↑	0	0	↑
SR 3.11	Support the delivery of the National Waste Management Plan for a Circular Economy.	0	↑	0	↑	↑	↑	0	0	↑
SR 4.1	Support other agencies in their development of a joined-up awareness/knowledge transfer strategy for the agricultural and food sectors.	0	↑	0	↑	↑	↑	0	0	↑
SR 4.2	Support other agencies in their development of a tool kit and training programme for engagement during routine farm visits.	0	↑	0	↑	↑	↑	0	0	↑
SR 4.3	Use the forthcoming County Biodiversity Action Plan as a vehicle to highlight the range of biodiversity opportunities that can be taken up at farm level.	0↑	↑	0	↑	↑	↑	0	0	↑

Donegal County Council Strategic Themes, Goals and Objectives		BFF	PHH	W	SG	AQ CC	MA	CH	L	IR
SR 4.4	Support Organic Farming by: Advocate for training in sales and marketing for farmers producing for local markets Supporting the provision of market spaces within public realm improvements Supporting local trading Promoting the "Grow it Yourself" movement by highlighting the positive benefits of locally grown organic produce.	↑	↑	0	↑	↑	↑	0	0	↑
SEA comment: Many of the actions are positive across PHH, W, MA and SG SEOS as they support improved waste management, circular economy and training and capacity building. Support for regenerative tourism and more sustainable farming practices are positive for a number of SEOS as they provide for climate change mitigation and adaption but support a locally supported nature based solutions approach generating positive , cumulative effects.										

Decarbonising Zones – Carndonagh and Falcarragh

		BFF	PHH	W	SG	MA	CH	L		
DZ G & L	To establish a dz stakeholder group, within the Decarbonisation Zone, with both DZ communities in Donegal, and to advocate for the establishment of regional and national DZ collaboration for all DZ communities.	0↑	↑	0	↑	↑	↑	0	0	↑
DZ G & L	To engage with the local community stakeholders to develop a Vision and Action Plan for the Carndonagh DZ.	0↑	↑	0	↑	↑	↑	0	0	↑
DZ G & L	To identify and support the DZ in seeking funding for the implementation of the DZ Action Plan.	0↑	↑	0	↑	↑	↑	0	0	↑
DZ BE	To support the initiatives of the North West Regional Energy Agency to improve energy efficiency, retrofitting, renewable energy technologies, local community-based renewable energy, wildlife and space for nature and circular economy projects for homes, businesses, public buildings and communities .	⇅	↑	⇅	⇅	↑	⇅	⇅	⇅	↑
DZ TR	To support the delivery of enhanced public transport and transport infrastructure in rural areas including the projects listed for Donegal under the Connecting Ireland Rural Mobility Plan (Carndonagh to Buncrana).	⇅	↑	⇅	⇅	↑	⇅	⇅	⇅	↑
DZ TR	To support sustainable travel initiatives in the DZ .	⇅	↑	⇅	⇅	↑	⇅	⇅	⇅	↑
DZ NE	To support the implementation of and build on the ECO Carn Network's Biodiversity Action Plan.	↑	↑	↑	↑	↑	↑	0	0	↑
DZ NE	To support sustainable and regenerative agricultural initiatives.	↑	↑	↑	↑	↑	↑	0	0	↑

DZ CR	To support development of the ECO Inishowen network.	↑	↑	↑	↑	↑	↑	0	0	↑
DZ SRM	To support local & national sustainable resource initiatives e.g. circular economy, reducing single use items, water conservation, food waste initiatives etc.	↑	↑	↑	↑	↑	↑	0	0	↑
DZ G & L	To establish a dz stakeholder group, within the Decarbonisation Zone, with both DZ communities in Donegal, and to advocate for the establishment of regional and national DZ collaboration for all DZ communities.	↑	↑	↑	↑	↑	↑	0	0	↑
DZ G & L	To engage with the local community stakeholders to develop a Vision and Action Plan for the Falcarragh / Gort a' Choirce DZ.	0↑	↑	0	↑	↑	↑	0	0	↑
DZ G & L	To identify and support the DZ in seeking funding for the implementation of the DZ Action Plan.	0↑	↑	0	↑	↑	↑	0	0	
DZ BE	To support the initiatives of the North West Regional Energy Agency to improve energy efficiency, retrofitting, renewable energy technologies, local community-based renewable energy, wildlife and space for nature and circular economy projects for homes, businesses, public buildings and communities	↕	↑	↕	↕	↑	↕	↕	↕	↑
DZ TR	To support sustainable travel initiatives in the DZ .	↕	↑	↕	↕	↑	↕	↕	↕	↑
DZ NE	To support sustainable and regenerative agricultural initiatives.	↑	↑	↑	↑	↑	↑	0	0	↑

Many of the DZ actions are positive across all SEOS, as they provide for climate change mitigation and adaption but support a locally supported nature based solutions approach. A number of actions are recommended for mitigation measures again to provide for more robust environmental performance and to more clearly define how environmental resources are considered through implementation. Furthermore, DZ BE is recommended for mitigation to provide more targeted response to ensure co benefits are clearly considered. This will improve consistency with key SEOS for Carndonagh given its location in an area of high ecological and environmental importance., generating positive, cumulative effects.

Two new mitigation measures are recommended for Carndonagh DZ to protect Trawbeaga Bay Special Protection Area and strengthen support for actions to support improved water quality.

[With respect to DZ actions, ensure that they are aligned with the conservation objectives for the Trawbeaga Bay SPA](#)

[Protect and maintain our freshwater and transitional water systems, in order to achieve the highest possible water quality and achieving Water Framework Directive objectives.](#)

Similarly, two new mitigation measures are recommended for Falcarragh DZ:

[With respect to DZ actions, ensure that they are aligned with the conservation objectives of European Sites within the wider area surrounding Falcarragh](#)

[Protect and maintain our freshwater and transitional water systems, in order to achieve the highest possible water quality and achieving Water Framework Directive objectives](#)