



Comhairle Contae Mhaigh Eo
Mayo County Council



NON TECHNICAL SUMMARY

Strategic Environmental Assessment of Material
Alterations to draft Castlebar Town and Environs
Local Area Plan 2023 -
2029

Prepared under SI 436 of 2004 as amended.



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This report has been prepared by Minogue Environmental Consulting Ltd with all reasonable skill, care and diligence. Information report 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 Mayo 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.



Minogue & Associates
ENVIRONMENTAL CONSULTANCY

1 Non technical summary

1.1 Context and Purpose

An Environmental Report has been prepared as part of the Strategic Environmental Assessment of the Castlebar Local Area Plan 2023-2029. This is the Non-Technical Summary of this report.

1.1.1 Summary and outline of Castlebar Local Area Plan

The plan must include objectives relating to land use zoning and protection of the environment. The plan will be prepared in line with Ministerial Guidelines under the Planning and Development Act, 2000 (as amended) and shall accord with national and relevant European legislation. The development plan is included in the hierarchy of plans and strategies at national, regional and local level. The National Planning Framework (NPF) is the Government's strategic plan for shaping the future growth and development of the country to 2040. At regional level, the Regional Spatial and Economic Strategy (RSES) developed by the Northern and Western Regional Assembly sets out a framework for implementation of the NPF at a regional level. The RSES recognises Castlebar as one of the Key Towns that has a potential to accommodate a significant level of growth in population and employment through appropriate investment in infrastructure, support services and placemaking initiatives. At local level, the development plan must be consistent with both the NPF and the RSES. Figure 1 shows the plan boundary.

Figure 1: Castlebar Local Area Plan Boundary



1.2 Material Alterations

The Draft Castlebar Town & Environs Local Area Plan 2023-2029 was placed on public display from Tuesday, 28th February 2023 to Tuesday 11th April 2023. The draft Plan and accompanying documents were displayed on the County Council's dedicated online public consultation portal at:

<https://consult.mayo.ie/en/consultation/draft-castlebar-town-environs-local-area-plan-2023-2029>

The Draft Castlebar Town & Environs Local Area Plan 2023-2029 comprises a written statement with maps and is accompanied by:

- Appendix 1 - Settlement Capacity Audit.
- An Environmental Report on the likely significant effects on the environment on implementing the Plan - pursuant to the Planning and Development (Strategic Environmental Assessment [SEA]) Regulations 2004-2011.
- An Appropriate Assessment (AA) Screening Report - pursuant to the EU Habitats Directive (92/43/EEC).
- A Strategic Flood Risk Assessment (SFRA) Report - pursuant to Section 28 of the Planning and Development Act 2000 (as amended).

Following consideration of the Draft Castlebar Local Area Plan 2023 -2029 and Chief Executive's Report, Members may accept the Draft LAP without material amendments and make the LAP. Should amendments be made which would constitute material alterations to the Draft LAP, there is a further public display period giving people an opportunity to comment on the proposed amendments only.

The Proposed Material Alterations were screened for the need to undertake full SEA and a number of these Proposed Material Alterations were determined to require full SEA. The SEA Screening Determination accompanies this SEA Environmental Report and the Proposed Material Alterations document. Annex C to this SEA Environmental Report comprises the SEA Screening Report that was prepared to inform the SEA Screening Determination. Chapter 8 Material Alterations of the draft Castlebar LAP 2023 -2029 presents the assessment of the Proposed Material Alterations that are subject to full SEA.

The purpose of this updated SEA ER is to provide an assessment of the likely significant effects of the proposed Material Alterations in line with S 12 of the Planning and Development Act, as amended.

The updated SEA ER should be read in conjunction with the Material Alterations Report, the Natura Impact Report and Strategic Flood Risk Assessment which are also on public display.

1.2.1 Steps 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).

1.2.2 Consultation on scoping stage

Submissions received at scoping stage have all informed the scope of this SEA.

1.2.3 Relationship to other plans and programmes

It is a requirement of the SEA to review and assess how the draft strategy may interact with other plans and programmes; this review was undertaken as part of the SEA and please see Chapter 3 and Annex B of the Environmental Report for more detail. Arising from the review, the following Table 1 highlights key implications from this review and how it relates to the UN sustainable development goals and the EPA State of Ireland's

Environment Themes. The objectives in the first column are also used to undertake the detailed assessment of the Castlebar Local Area Plan, as shown in Annex A of the SEA Environmental Report.

TABLE -1 STRATEGIC ENVIRONMENTAL OBJECTIVES AND THEIR LINKS TO THE EPA AND UN SUSTAINABLE DEVELOPMENT GOALS

SEA Topic	Principles/Implications	Links to EPA Themes and Sustainable Development Goals
Biodiversity, Flora and Fauna	Guiding Principle: Improve quality of life for all ages and abilities based on high-quality, serviced, well connected and sustainable residential, working, educational and recreational environments	Nature and Wild Places. Restore and Protect Water Quality Implementation of Legislation. Climate change. SDG 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.
Population and Human Health	Guiding Principle: Improve quality of life for all ages and abilities based on high-quality, serviced, well connected and sustainable residential, working, educational and recreational environments	Environment, Health and Well-being. Sustainable Economic Activities Restore and Protect Water Quality. Implementation of Legislation. Climate Change SDG 3. Ensure healthy lives and promote wellbeing for all at all ages. SDG 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. SDG 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable.
Water	Guiding Principle: Protection, improvement and sustainable management of the water resource	Restore and Protect Water Quality. Nature and Wild Places. Implementation of Legislation. Climate Change SDG 6. Ensure availability and sustainable management of water and sanitation for everyone SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development
Land and Soil	Guiding Principle: Ensure the long-term sustainable management of land	Nature and Wild Places. Implementation of Legislation SD Goal 12. Ensure sustainable consumption and production patterns. SD 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	Support clean air policies that reduce the impact of air pollution on the environment and public health	Implementation of Legislation. Climate Change. Environment, Health and Well-being SD Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation
Climate	Achieving transition to a competitive, low carbon, climate-resilient economy that is cognisant of environmental impact	SD Goal 12. Ensure sustainable consumption and production patterns SD Goal 13. Take urgent action to combat climate change and its impacts

Material Assets	Guiding Principle: Sustainable and efficient use of natural resources	Implementation of Legislation. Climate Change SD Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation SD Goal 12. Ensure sustainable consumption and production patterns SD Goal 13. Take urgent action to combat climate change and its impacts.
Cultural Heritage	Guiding Principle: Safeguard cultural heritage features and their settings through responsible design and positioning of development.	Environment, Health and Well-being. Sustainable Economic Activities. Implementation of Legislation SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable. SD 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
Landscape	Guiding Principle: Protect and enhance landscape character	Environment, Health and Well-being. Sustainable Economic Activities Climate Change SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable. SD 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.

2 Describing the current environment

Baseline data has been gathered to present information on the current environment within the area. The Baseline section describes the following:

- Ecosystem Services and Natural capital
- Biodiversity, Flora and Fauna
- Population and Human Health
- Soil and Geology
- Water Resources including flooding
- Air Quality and Climate
- Cultural Heritage
- Landscape
- Material Assets, and the
- Interaction between the above topics.

These are summarised below:

2.1.1 Green and Blue Network

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. Green spaces are key in terms of natural capital and ecosystem services. Green and Blue infrastructure can also contribute to climate change adaptation and mitigation with co benefits in terms of biodiversity, water quality, recreation, and human health¹. There is strong policy support in the to protect and enhance recreation and amenity space reinforced through the recognition of the importance of the same throughout the COVID-19 pandemic². The Green Network supports the linkage between various multifunctional spaces, that include:

- Blue Spaces of the plan area's rivers, lakes
- Protected Spaces of ecological and biodiversity importance
- Green Spaces of woodland parks
- Open Spaces including recreational and amenity and agricultural zoned lands
- Community Spaces, that afford direct access to nature and amenities (such as greenways) to the community

2.1.2 Overview of High Value Biodiversity and Designations

The Plan area supports a rich biodiversity, with many natural and semi-natural habitats and a range of species and flora. Lough Lannagh and Saleen Lough are located in close proximity to the town centre as well as the Castlebar River, which winds through the centre of the town, which form part of the Moy Catchment. The Castlebar River holds important salmonid populations and provided a direct pathway to the River Moy SAC, which is currently at moderate status and at risk. The surrounding landscape is rich in peatbogs and Annex I heathlands and fens. Other habitats, although not protected are important for providing links between the protected habitats, allow migration, dispersal and genetic exchange of wild plants and mammals. Examples include scrub, hedgerows, tree lines, and gardens etc. Natural heritage in the plan area includes a wide range of natural features that make an essential contribution to the environmental quality, ecological biodiversity,

¹ Spatial Planning & Climate Action Delivering a Low Carbon & Climate Resilient Future Workshop Report Feb 2021 CARO

² "COVID-19 and Sheer Wellbeing 2020 Access to and Use of Blue/Green Spaces in Ireland during a Pandemic," 19.

climate resilience through nature-based solutions landscape character, visual amenity and recreational activities of the town.

2.1.3 Population and Human health

Castlebar is the largest town in Co. Mayo, with a population of 12,068 (2016) (See Figure 4.11 for population density in the plan area) and is the main administrative, public health, education and commercial centre in the county. The town provides over 9000 jobs and hosts a range of industrial/enterprise businesses and has a strong focus on commerce and the manufacturing industry. Castlebar Town Centre historically has been the focal point of commercial activity, but has slowly seen a shift in retail activity with the emergence of online-retail. The main public health function in Castlebar and surrounding environs is the Mayo University Hospital and the primary care centre.

Human health can be determined by social, environmental and economic factors, among others.. 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 regarding climate change and adaptation and mitigation to climate change including transport options, green infrastructure, energy provision and efficiencies and air quality emissions. Figure 6 below identifies key factors that contribute to human health.

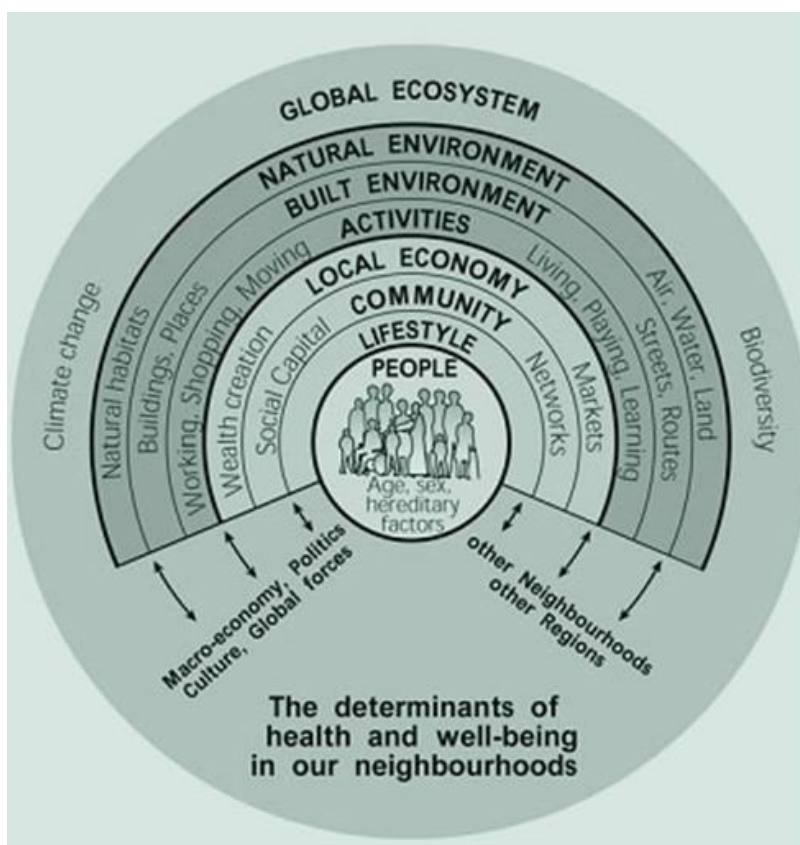
2.1.3.1 Human Health and Ecosystems

Research is now demonstrating the connections between green and blue space and human health with key effects identified as follows³:

- Ecosystem services and physical health. There is a growing body of evidence indicating that the ecosystem services provided by high-quality green space have a significant influence on physical health. Such ecosystem services are particularly beneficial when they are easily accessible and exist in proximity to residential areas.
- Ecosystem services and mental health and well-being. Green spaces have been shown to deliver measurable mental health benefits and contribute to general psychological well-being
- Ecosystem services and mitigating other forms of environmental risk to health. Green spaces and their associated vegetation can positively influence health through contributing to improved air and water quality. Vegetation can help remove airborne pollutants, whether in particulate or gaseous form. This is an especially pertinent issue in urban environments where traffic-related pollutants can prove detrimental to physical health and mental well-being.

³ This text is from page 4 of Eco-Health: Ecosystem Benefits of Greenspace for Health Authors:Mark Scott,Mick Lennon, Owen Douglas and Craig Bullock. EPA No 238 2020

FIGURE 2 DETERMINANTS OF HEALTH AND WELL BEING.



2.1.4 Geology and Soil

Urban soils comprise the core of the plan area. Patches of peat scattered throughout the north-west and north-east, with a larger concentration of the same in the south of the plan area. The soils and habitats of Castlebar have been influenced by its underlying geology. The majority of the plan area is underlain by limestone and shale.

2.1.5 Water Resources

The Castlebar SC_010 subcatchment contains the Castlebar River and Lakes Islandeady and Castlebar, in addition to Lough Lannagh and Saleen Lough. Castlebar River (010 and 020) is considered to be At Risk under the Water Framework Directive, with poor ecological status. The main pressures identified for this waterbody include urban run-off and wastewater, agriculture, hydromorphology, extractive industry and domestic waste-water. The Castlebar Lake is under pressure from agriculture, domestic waste water and invasive species (Zebra Mussel). The Castlebar River originates in the Castlebar Lakes and is a tributary to the River Moy. It is an important spawning ground for salmon and trout.

An upgrade to the Lough Mask Water Treatment (WTP) is due to be completed by 2023, which will be sufficient for the proposed population increase. There are no known water constraints in Castlebar.

2.1.5.1 Strategic Flood Risk Assessment

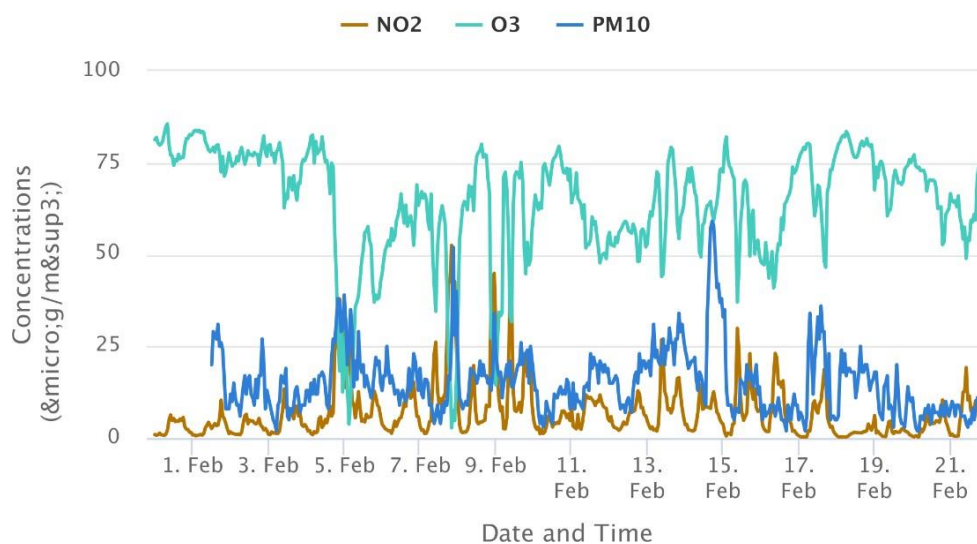
The Planning System and Flood Risk Management Guidelines (DoEHLG 2009) provide a methodology to incorporate flood risk identification and management into land use strategies. It also requires the alignment and integration of flood risk into the SEA process. Potential flood issues in the plan area are an important consideration in the preparation of the Castlebar LAP 2023-2029. Therefore, the plan has been guided by the information on flood risk currently available and has been informed by the currently up to date flood risk information including Catchment Flood Risk Assessment and Management (CFRAM) studies.

Fluvial flooding in Castlebar has been identified in the vicinity of the Saleen Lough and Lough Lannagh and in a narrow corridor along the Castlebar River which flows through the centre of the town. This affects relatively few properties but there are areas of flooding which are currently undeveloped and within the development limits of the town. These need to be managed in accordance with the requirements of the Planning System and Flood Risk Management Guidelines. The CFRAM flood maps for Castlebar provide the full flood extents for fluvial flooding in the town. Site selection and flood prevention measures are therefore important when growing Castlebar, especially if growth is planned in the south, to ensure no flood risk impacts and avoid inappropriate development.

2.1.6 Air Quality and Climatic Factors

The Castlebar monitoring station is located on the grounds of the EPA office on the outskirts of Castlebar. Air quality index on 21st February 2023 was recorded to be 2 (good). Particulate matter (PM₁₀), ozone and nitrogen oxides are measured at this site. The past three weeks measurements for are presented below and show considerable variations .

Air Quality Levels at Castlebar, Co. Mayo



The Climate Action and Low Carbon Development Act 2015 sets out the national objective of transitioning to a low carbon, climate resilient and environmentally sustainable economy in the period up to 2050. The recent Climate Action and Low Carbon (Amendment) Act 2021 provides for a statutory a “National Climate Objective” that commits to pursue and achieve the transition to a climate-resilient, biodiversity rich, environmentally-sustainable and climate-neutral economy. Climate is a key indicator with influences on all other indicators

2.1.7 Material Assets

Uisce Éireann and Mayo County Council are continually progressing sewer rehabilitation activities, capital maintenance activities, etc. Uisce Éireann and Mayo County Council will continue to monitor the performance of the networks to ensure that the most urgent works are prioritised as required.

A Network Development Plan has been drafted for Castlebar, which will help inform how zoned sites within the town could be serviced. In recent years, the wastewater network in Castlebar was extended to include Breaffy

village. Although some localised constraints exist, there are no known major constraints in Castlebar's wastewater network. Wastewater is currently treated in the north of the settlement at the Castlebar treatment facility, catering for a population equivalent to 17,794. The facility is well within design capacity of 28,000 pe and is passing compliance, and therefore is not of immediate concern.

Water Supply Infrastructure

Castlebar is supplied by Lough Mask Regional Water Supply. While capacity is constrained at present, an upgrade is underway to increase capacity at Lough Mask Water Treatment Plant. The ongoing works will ensure there is adequate capacity to meet the population targets of the Draft Plan and are due to be completed in 2024. In the medium-long term, a further upgrade of the treatment plant will be required. The North-West Regional Water Resources Plan is currently being finalised following public consultation and will identify plan-level approaches to address the identified needs in the region, which includes Castlebar, in a sustainable manner.:

Transportation: It is essential that the new Local Area Plan promotes a more efficient strategic transport system integrated with appropriate use of land to support the sustainable economic, social and physical development of Castlebar as an attractive location for enterprise, investment and a place to live, work and visit. A Local Transport Plan is currently being prepared for Castlebar and will be subject to SEA and AA screening.

2.1.8 Landscape

Landscape sensitivity is a measure of the ability of the landscape to accommodate change or intervention without suffering unacceptable effects to its character and values. Sensitivity ratings are derived from a combination of landscape values and landscape character.

2.1.9 Cultural Heritage

Castlebar benefits from a legacy of 18th, 19th and 20th century buildings including townhouses on Ellison Street, civic and institutional buildings such as the Military barracks, and ecclesiastical buildings such as the Church of Ireland on The Mall and the Catholic Church on Upper Chapel Street. Under the current Town and Environs Plan the town has 85 Protected Structures. The town also has a rich archaeological heritage which is evidenced through the numerous Recorded Sites and Monuments which confirm early settlement in the area.

3 Consideration of Alternatives

In the case of the Draft Castlebar LAP, possible alternatives include different land uses and scales of development were examined and assessed against the SEOS (Table 1).

1. Continuation of Existing LAP land use zonings and policies/objectives (The Do-Nothing Scenario). Continues with the existing LAP in its current context.
2. Town centre consolidation: This approach would be to focus explicitly on the densification of the town centre with intensification of land uses and focus on employee intensive sectors.
3. Town centre consolidation and designation of future development lands in a tiered structure: Promotion of development lands within the town centre for development and the designation of secondary and edge of centre areas where this type of development is considered appropriate in certain circumstances. It would also promote the development of neighbourhood centres to provide a level of retail services locally.

Following the assessment, the preferred alternative from an environmental strategic perspective is Alternative 3, Town Centre consolidation and designation of future development lands in a tiered structure. This provides the greatest positive environmental effects and is consistent with national and regional planning policy.

4 Assessment of Significant Environmental Effects

The table overleaf provides an overall evaluation of the environmental effects arising from the draft LAP 2023-2029. These effects encompass all in-combination/cumulative effects arising from implementation of the Strategy. The potentially significant adverse environmental effects (if unmitigated) arising from implementation of the LAP are detailed as are residual effects, taking into account mitigation through both provisions integrated into the Plan and existing provisions already in force through the County Development Plan. Environmental impacts which occur will be determined by the nature and extent of multiple or individual projects and site specific environmental factors.

TABLE 2: OVERALL EVALUATION OF SIGNIFICANT EFFECTS OF THE LAP

SEA theme	Significant positive effects	Significant adverse effects, if unmitigated
<p>Biodiversity, Flora and Fauna</p>	<p>The natural environment includes those spaces outside of the built environment such as open spaces, lakes, rivers and agricultural land.</p> <p>Despite the fact that the plan area is primarily urban in character, the town and its environs, which are located in a rolling drumlin landscape, contain several significant elements of the Natural Environment. Lough Lannagh and Saleen Lough are located in close proximity to the town centre as well as the Castlebar River, which winds through the centre of the town (NEP1 & NEP2 Designated Sites policies).</p> <p>Due to increased utilisation of lands within the existing development boundary and use of existing utilities and brownfield sites reduces pressure and need for greenfield land development (DSO 1 Development Strategy; HSCO1 & HSCO4 Residential Development).</p> <p>Embedding nature-based solutions to climate change – allows for co-benefits with other environmental parameters including biodiversity, water and human health (NEP 3 Designated Sites policy; CAP1 to Cap11 Climate Action policies; and NEO2 Ecological Corridor Objective; NEP4 & NEP5 Trees and hedgerows policy; NEO3 Trees and hedgerows objective; HSCO5 Residential Density, Design & Mix Objective).</p> <p>Promotion of pedestrianisation and cycle friendly town with modal shift contributes to air quality improvements at local level and noise level reductions with positive effects on urban wildlife.</p> <p>Positive effects on water quality arising from nature-based solutions from micro to macro scale. This can reduce pressure on stormwater overflows and conserve water, thus reducing abstraction pressures on water dependent habitats and species.</p>	<p>Loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna in the absence of detailed surveys and assessment. In addition to this the would be</p> <ul style="list-style-type: none"> - A reduction in water quality can impact water dependant habitats. Therefore, site selection and the appropriate environmental assessment will be vital to ensure that the integrity of these habitats are not impacted. - Lack of protection for non-designated aspects of biodiversity such as ecological corridors and linkages, and ensure control and manage measures for invasive species. - This lack of protection would also affect hedgerows and treelines, amenity development and greenways, bats, and lighting issues.
<p>Population and Human health</p>	<p>Land use planning (e.g., residential, community, education, work, recreation, transport) impacts on the everyday lives of people and can either hinder or help promote healthy sustainable environments and</p>	<p>Activities associated with construction and operation, particularly in environmentally sensitive areas may result in emissions to air and water; with accompanying adverse effects on local health and well-being.</p>

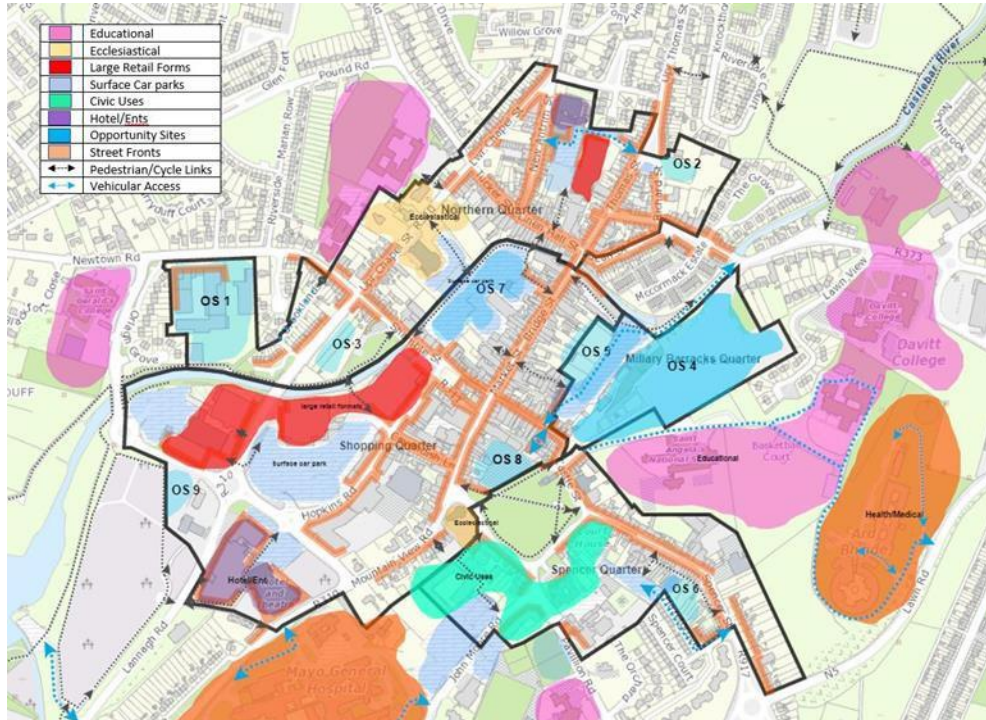
SEA theme	Significant positive effects	Significant adverse effects, if unmitigated
	<p>communities. This will be important to protect, enhance and improve quality of life for the local population and/or those visiting the area.</p> <p>For example, the provision of safe walking routes and cycle-ways, parks, playgrounds, safe routes to school, public transport facilities, etc. result in direct and indirect health benefits and allow for healthier transportation choices to be made by communities above private motor car (MTP1/4 Sustainable Mobility Policy; MTO1 sustainability mobility objective; MTO9 CMT0 4 CLTP objective; MTO10 & MTO11 car park objective).</p> <p>Many of the policies identified in the LAP 2023-2029 may give rise to long term positive effects on population and human health both by responding and adapting to the impacts of climate change, promoting town centre, compact living, enhancing access to open space and improving the public realm (DSO6 Development Strategy Objective NEP1 Designated Sites Policy; CAO3 Climate Action Objective; Adaptation to climate change by reducing reliance on fossil fuel for heating as well as transport (CAP3 & CAP7 Climate Action Policy; CAO3 Climate Action Objective).</p> <p>Reuse of existing buildings represents embedding existing carbon in existing buildings. (EDP1 Economic Development Policy, EDO4 Retail and Town Centre Objective; CAP3 to CAP11 Climate Action Policy).</p>	
Water	<p>The Mayo CDP 2022-2028 includes a range of provisions and measures to address and minimise the adverse, including measures around green infrastructure, flood risk management and development control.</p> <p>This LAP further enhances and strengthens these through the flood resilience actions and nature-based solutions in particular (IESP 1 & IESP 2 Flood Risk Management Policy; IESO1 Flood Risk Management Objective; IESP5 Drinking water Wastewater Policy).</p> <p>Additional tree planting and a focus on riparian habitats provide for positive effects as they reduce soil run off and allow for water attenuation and filtration. Again, this provides for longer, positive effects associated with linear habitat creation and ecological connectivity.</p>	<p>A reduction in water quality in groundwater, springs and watercourses associated with the construction phase of new developments (short to medium term impacts)</p> <p>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);</p> <p>Changes in the flow rate of watercourses arising from an increased footprint of impermeable surfaces within the Plan</p>

SEA theme	Significant positive effects	Significant adverse effects, if unmitigated
	<p>The introduction of Sustainable Drainage Systems (SuDS) has a number of benefits including heat reduction through evaporation and flood prevention, particularly during periods of high rainfall when surface water runoff increases in urban areas. SuDS mimic natural drainage by storing, infiltrating and slowing the flow of water. The impervious surface in urban environments has lower infiltration and evaporation than natural environments and greater surface run-off. Measures around SuDS, and other natural water retention measures are particularly positive, creating long term direct positive effects on water resources, as well as soil and biodiversity, landscape and population (CAP2 & CAP3 Climate Action Policy; IESO1 Flood Risk Management Objective).</p>	<p>area - increasing the extent of impermeable surfaces will result in a decrease in infiltration and an increase in runoff.</p> <p>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.</p> <p>Water quality impacts can also have human health impacts in the case where bacterial or chemical contamination arises.</p>
Soil and Geology	<p>Soil quality and function may be enhanced through particular measures associated with flood resilience and nature-based solutions.</p> <p>The promotion of brownfield and town centre sites embeds existing geological resources and reduces requirements for additional geological resources and greenfield development (DSO1 Development Strategy Objective; HSCO1 Residential Development Objective; HSCO4 Residential Density, Design & Mix Objective).</p> <p>The recognition of ecosystem services and green infrastructure further recognises the essential role and function that soil plays in terms of biodiversity, landscape, human health and climate change adaptation and mitigation (CAP2 & CAP3 Climate Action Policy; NEO2 Ecological Corridor Objective; IESP11 Information Communications Technology and Broadband Policy)</p> <p>The LAP also recognises and supports the ecosystem services approach which identifies CAP1 (Climate Action Policy) areas within the Plan area that show the greatest carbon retention in the soil.</p> <p>Micro and macro nature-based solutions ranging from green roofs to larger nature water retention measures all serve to reduce the volume and rate of</p>	<p>Given the historical and recent land use associated with a number of town centre sites, the potential for contamination soil presents a risk in the absence of mitigation.</p>

SEA theme	Significant positive effects	Significant adverse effects, if unmitigated
	<p>flow of water, thus impacting positively in terms of potential loss of soil associated with increased surface water runoff and extreme weather events.</p>	
Material Assets	<p>Many of the measures in the LAP are identified 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 (all infrastructure and climate action policies and objectives).</p>	<p>In the absence of mitigation, the opportunity to embed circular economy and reuse of existing buildings and brownfield development would not occur. This would also be the case with the reduction of waste and modal shift in transport which contribute to the reduction of greenhouse gases.</p>
Air Quality	<p>Will contribute positively to climate change adaptation through the following:</p> <ul style="list-style-type: none"> • Blue and green infrastructure giving rise to increased surface water storage and potential carbon sequestration (CAP2 Climate Action Policy) • Focus on energy efficiency and innovation (CAP3 Climate Action Policy; CAO4 Climate Action Objective; NEO2 Ecological Corridor Objective; • Other energy related measures are all identified as positive in relation to this SEO. <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 strategy and beyond (CAP1-CAP11 Climate Action policy; CAO 1-CAO4 Climate Action objective; MTP3 Sustainable Mobility Policy; TCP4 Town Centre Policy).</p> <p>Recognising the ecosystems functions of soil, water and biodiversity is a key element in the Nature Based solutions theme and is an important acknowledgement that also provides for positive effects across a number of SEOs.</p>	<p>In the absence of mitigation, the opportunity to embed meaningful actions in the plan that are needed to deliver the overall vision and aims is lost. Particularly in the areas of urban greening, and nature-based solutions which offer co and multiple benefits in responding to climate change whilst enhancing the overall environmental quality of Castlebar LAP.</p>

SEA theme	Significant positive effects	Significant adverse effects, if unmitigated
Cultural Heritage	<p>Long term positive effects associated with the town centre use and intensification of use (HSCO4 Residential Density, Design & Mix Objective). The relationship between the urban realm, townscape and cultural heritage features and intangible cultural heritage (BEP1-BEP5 Built Heritage Conservation Policy; BEP6 Architectural Heritage and Record of Protected Structures Policy; BEP7 Archaeological Heritage Policy; BEP8 & BEP9 Placemaking & Views & Prospects Policy; BEO 1-BEO1 Built Heritage Conservation Objective; BEO2-BEO5 Architectural Heritage and Record of Protected Structures Objective; BEO6 & BEO7 Archaeological Heritage Objective).</p>	<p>In the absence of mitigation, potential adverse effects particularly in relation to the townscape setting and context of architectural conservation areas.</p>
Landscape	<p>Long term positive effects are identified in the LAP for landscape primarily through the public realm enhancement (TCO 5 Town Centre Objective), green and blue infrastructure (NEP1 Designated Sites Policy), increased tree planting (NEO3 Trees and hedgerow objective), etc.</p> <p>Many of the measures in the LAP require a landscape level response such as recognition of green and blue infrastructure and corridors and this an important approach to take when responding to climate change (CAP 2 & CAP3 Climate Action Policy; CAO4 Climate Action Objective).</p> <p>Public realm enhancement and reuse of existing buildings are also consistent with landscape SEOs.</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 open space, green infrastructure, public realm and permeability would all create long term positive effects for the Landscape SEOs.</p>	<p>In the absence of mitigation, the varied landscape, an inherent part of Castlebar’s natural heritage requires protection in its own right. Therefore, the landscape must be protected against possible development, which would undermine or change its character. It is paramount to Castlebar’s future development only takes place where visual intrusion is minimal, particularly within areas of elevated topography or sparse vegetation. Castlebar is located within Area K – East Central Drumlin Spine of the ‘Landscape Appraisal for County Mayo’.. There are two local landscapes which are protected, and these are Lough Lannagh and Saleen Lough.</p> <p>The consideration of modal shift, increased pedestrianisation and cycling are all positive but require consideration to avoid visual clutter associated with excessive infrastructural and signage.</p> <p>The public realm enhancements offer a good opportunity to embed urban greening measures to avoid an over hardscaped public realm design.</p>

4.1.1 Landuse zonings and Opportunity Sites



The application of a number of policies in the draft LAP will also provide appropriate mitigation at site level, in particular the following policies/objectives:

TCO1 Encourage and facilitate the development of Opportunity Sites in Castlebar for a mixture of uses that will contribute to the regeneration, vibrancy, diversity, vitality, attractiveness, safety, liveability and compact growth of the town centre. In conjunction with this, proposed developments must demonstrate how they will interact within its context and the wider urban area.

TCO2 Continue to develop and implement the Castlebar Town Centre Regeneration Strategy, and encourage and facilitate the reuse and regeneration of derelict, vacant, backland and underutilised lands and buildings in the town centre through active land management for retail, residential and other mixed uses and where necessary through appropriate legislative mechanisms/instruments and / or by supporting the progression and delivery of projects funded by the Urban Regeneration and Development Fund and other appropriate funds to achieve this aim.

TCO3 (a) Promote high quality place-making and public realm in accordance with the Mayo Development Plan 2022 – 2028, including the Development Management Standards, any replacement thereof and any relevant Section 28 Guidance. All development shall demonstrate climate resilience measures to climate-proof critical infrastructure.

(b) Ensure the highest quality of public realm and urban design principles are applied in the town centre, and the opportunity areas identified in this Proposed Plan. The success of the public realm is high quality, easily maintained street furniture, soft landscaping. Drainage solutions should be designed on the principles of SuDS.

(c) Ensure development proposals have given proper consideration to the urban design criteria of site context, connectivity, inclusivity, variety, efficiency, distinctiveness, layout, public realm, adaptability, privacy and amenity, parking and detailed design.

A number of sites are identified as meriting ecological assessment given the existing habitats on site, and application of mitigation measure as recommended through the SEA, SFRA and AA.

The landuse zonings for the Castlebar LAP were assessed through the SEA, AA and SFRA process and commentary are provided in Annex A of the SEA ER. Overall, these are identified as consistent with the Strategic Environmental Objectives of the SEA ER.

4.2 Material Alterations

A number of material alterations were screened in for full SEA and these are presented in Chapter 8 of the updated SEA ER. These primarily relate to changes to landuse zonings and were made by elected members rejecting the Chief Executives recommendations. In addition, the elected members rejected recommendations made by the Office of the Planning Regulator and the Office of Public Works. A detailed commentary and evaluation of effects is provided in Chapter 8 but in summary, key environmental effects identified from these material alterations relating to landuse include:

- Proposed Material Alterations are not consistent with many SEOs. In particular they do not align with sustainable development and are identified as generating direct effects across a range of SEOS by liberalising the approach to housing in terms of compact growth, rural housing criteria and national and regional policies as identified in the National Planning Framework and RESS. Effects are identified as direct, indirect, and cumulative for short to long term.
- Significant increase in new residential zoning on lands not identified as such, largely zoned agriculture currently and all at a distance from town centre
 - significant conflict with Core Strategy, National Planning Framework, North West RESS and existing Mayo CDP and Castlebar LAP policies.

- The provision zonings outside of serviced areas and without would contribute to peripheral growth and represents an inefficient use of land as well as the additional costs in terms of servicing same in terms of water supply, wastewater treatment etc. Moreover locations at the edge of town does not align with compact growth and need for sustainable transport options provided at present.
- Groundwater is sometimes relied upon as a source of drinking water, particularly in areas not served by water mains. Depending on the geology of the area, aquifers can be vulnerable to contamination, particularly from wastewater treatment systems. This is particularly pertinent in the karst areas around Castlebar, and where the groundwater is particularly vulnerable to contamination.
- Conflict with climate change commitments and active travel policies and objectives
- Increase of carbon emissions associated with lost opportunity for integrated landuse and transport and maximizing non vehicular trips associated with compact growth.
- Cumulatively potential effects re soil sealing, increased run off, erosion of existing linear woodland habitat, run off to small lakes, and potential flood risk.
- Not contributing to the 30% town centre target for new residential provision
- Potential effects on wildlife and biodiversity, through severance effects, loss of connectivity, habitat fragmentation and supporting resources in particular water including surface and groundwater.
- Potential effects associated with material assets and the additional costs and burdens associated with services such as wastewater, water supply, transport, waste management etc.
- Issues in provision of above services and poor efficiencies by not utilising and maximising serviced lands and a service led development approach.
- Loss of soil and geology with accompanying effects around surface water run off at cumulative scale.
- Increasing nutrient loading on water bodies and contribution to declining water quality.
- Loss of local landscape character, setting of architectural heritage with accompanying landscape impacts.
- Effects on population and human health arising from the above.

4.3 Mitigation Measures

This section presents some of 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 Plan. 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 table below presents mitigation measures identified through the SEA process, additional measures from the Appropriate Assessment and site specific commentaries are included in the Strategic Flood Risk Assessment. Mitigation measures are also identified for a number of Material Alterations.

Table 3: SEA mitigation measures

New policy/objective for Development Strategy Chapter:	Require the preparation and assessment of all planning applications in the plan area to have regard to the information, data and requirements of the Appropriate Assessment Natura Impact Report, SEA Environmental Report and Strategic Flood Risk Assessment Report that accompany this LAP. There shall be a requirement of Ecological Impact Assessment as appropriate in the Plan area.
CAO1	Ensure all development proposals shall have regard to the Mayo Climate Change Adaptation Strategy (2019) AND THE ASSOCIATED SEA AND NIS ENVIRONMENTAL REPORTS, any revised or forthcoming adaptation, mitigation or climate action strategies in the formulation of any plans and when assessing planning application for future developments.
CAO -new objective from County Mayo Climate Change Action Plan 2019-2024.	<p>GOAL 3: • Increase the Resilience of Natural and Cultural Capital.</p> <p>OBJECTIVES</p> <ol style="list-style-type: none"> 1. Build awareness of Nature Based Adaptation Solutions and Green Infrastructure. 2. Support bio-diversity for its intrinsic value within the natural environment and its importance in climate change adaptation. 3. Develop a database of impacts of climate change on Mayo’s Natural Environment. 4. Identify Cultural and Heritage Sites vulnerable to climate change and develop adaptation and management policies. 5. Encourage adaptation in Agriculture and Local Food Supply
NEP1	<p>In seeking to protect and enhance the natural environment, Mayo County Council will seek to:</p> <ul style="list-style-type: none"> - Protect, conserve and enhance the natural heritage of Castlebar, including the protection of the integrity of European sites, that form part of the Natura 2000 network. - Protect and conserve non-designated habitats and species; and - Protect and incorporate existing biodiversity features into the design and construction of new development and public realm and enhancing the biodiversity value of existing open spaces. - Where development proposals are made along a riparian corridor, ensure that a vegetated strip informed by ecological assessment to ensure it is robust and appropriate for wildlife and nature conservation along the river in consultation with the National Parks and Wildlife Service. -

NEP 3	Protect, reinforce and strengthen the Green and Blue Infrastructure network in Castlebar and strengthen links to the wider regional network. This should be informed by appropriate ecological surveys and assessment.
NEP4	There shall be a presumption against the felling, topping, lopping or wilful destruction of mature trees as part of development proposals. Where a development proposal involves the felling, topping, lopping or threatens the destruction of a mature tree or trees, a tree survey will need to be included in the submission, carried out by a qualified Tree Specialist to justify the exceptional circumstances for their interference. The applicant must demonstrate the justification and rationale for removal of mature trees in terms of effect on ecology and landscape and demonstrate how replacement planting will compensate for loss of trees and woodland features. An assessment of potential tree roost features by a qualified and experienced ecologist may also be requested as part of such proposals.
NEO 3	Increase tree planting and pollinator friendly planting, in accordance with the recommendations of the All-Ireland Pollinator Plan 2021-2025, and any future editions, throughout Castlebar and in open spaces in new developments in order to enhance local biodiversity, visual amenity and surface water management, in partnership with relevant stakeholders, subject to available resources.

4.4 Monitoring

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.

It is recommended that data arising from planning applications, particularly in terms of environmental constraints mapping and Environmental Impact Statements be integrated into the GIS and monitoring system. This will assist in assessing cumulative impacts also, in particular ecology and water quality.

Finally, it is recommended that the monitoring report be made available to the public upon its completion. It is recommended that this data be shared with neighbouring local authorities to assist in monitoring cross county effects and ensure consistency of monitoring.

TABLE 4 SEA MONITORING

Strategic Environmental Objective	Target	Indicator/Data Sources	Source/Responsibility/Frequency
<p>Biodiversity Flora and Fauna</p> <p>BFF1 Conserve and enhance biodiversity at all levels</p>	<p>No reduction in length or loss of hedgerows.</p> <p>Operators who conduct mechanical hedge cutting should have achieved the Teagasc proficiency standard MT 1302-Mechanical Hedge Trimming.</p> <p>30% broadleaf/native afforestation.</p> <p>Protection and promotion of non-designated salmonid rivers.</p> <p>No. ecological networks or parts thereof which provide significant connectivity between areas of local biodiversity to be lost without remediation as a result of implementation of the MCDP 2021-2027</p> <p>Afford the same level of protection to Margaritifera Sensitive Areas as is afforded to Freshwater Pearl Mussel SAC rivers</p>	<p>Percentage of unique habitats and species lost in non-designated sites over the lifetime of the Plan through trending of annual/bi-annual surveys.</p> <p>Percentage of broadleaf/native afforestation.</p> <p>Number of green infrastructure and blue infrastructure measures implemented during Part 8 applications.</p> <p>Number of pollinator friendly planting schemes as part of public realm works.</p> <p>Number of pollinator friendly schemes identified under Tidy Towns</p> <p>Number of Part 8 applications requiring Ecological Clerk of Work</p> <p>Percentage loss of connectivity between areas of local biodiversity importance as a result of implementation of the MCDP as evidenced from a resurvey of CORINE mapping and the Biodiversity Mapping undertaken by MCC for towns and villages where present.</p> <p>Decrease in population of freshwater pearl mussels in <i>Margaritifera</i> sensitive areas and/or habitat and water quality deterioration.</p>	<p>MCC</p> <p>MCC Part 8 planning applications Coillte- Annual NPWS – Annual or as and when surveys completed by NPWS for National Monitoring programmes on a rolling basis and/or surveillance monitoring undertaken for compliance with Article 17 of the Habitats Directive and reported on every 6 years. MCC - Annual OPW - Annual National Biodiversity Data Centre – Annual</p> <p>Ireland River Basin Management Plan –second and third RBMP Cycle</p>
<p>BFF2 – Avoid and minimise effects on nationally and</p>	<p>No loss of protected habitats and species during the lifetime of the Plan.</p>	<p>Designation of additional areas due to biodiversity and/or geological value.</p>	

Strategic Environmental Objective	Target	Indicator/Data Sources	Source/Responsibility/Frequency
internationally rare and threatened species and habitats through sensitive design and consultation, recognising ecological connectivity.	No compromise in the favourable conservation condition of European sites. No compromise or impact on the achievement of the favourable conservation condition objectives (whether maintain or restore) of European sites.	<p>Percentage of unique habitats and species lost in designated sites through trending of annual surveys.</p> <p>No./percentage of developments in/near Natura 2000 network.</p> <p>Percentage of European sites in the plan area that are at 'Favourable' conservation status.</p> <p>Percentage of Qualifying Interest Features which have achieved their specific objectives of maintain or restore.</p>	
BFF3 – Avoid and minimise habitat fragmentation and seek opportunities to improve habitat connectivity.	<p>Submission of Ecological Impact Assessments for planning applications</p> <p>Number of green and blue infrastructure measures implemented through Part 8 applications.</p> <p>Ensure provision of riparian zones at project/site level.</p>	<p>Number of Ecological Impact Assessments with planning applications.</p> <p>Number of Part 8 applications with green and blue infrastructure measures</p> <p>No. of planning applications with sufficient inclusion of buffer zones where necessary and applicable.</p>	
BFF4 – Ensure careful consideration of non-native invasive and alien species particularly as they relate to watercourses	<p>Prevent the introduction of new invasive or alien species.</p> <p>Control/manage new invasive species.</p> <p>Control/manage/eradicate invasive species throughout the county.</p>	<p>No., type and location of invasive species identified.</p> <p>No. of actions achieved under the Biodiversity Action Plan.</p> <p>Increase/decrease in coverage of invasive species identified.</p> <p>No. of submissions/observations submitted through invasive species Ireland "Alien Watch". www.invasivespeciesireland.com/alien-watch</p>	

Strategic Environmental Objective	Target	Indicator/Data Sources	Source/Responsibility/Frequency
		The National Biodiversity Data Centre will track success in the implementation of the All-Ireland Pollinator Plan by measuring increases in the abundance and diversity of pollinators within the Irish landscape as the 81 actions are implemented.	
B5 - Promote green and blue infrastructure networks, including riparian zones and wildlife corridors.	<p>Ensure new development is set back from rivers.</p> <p>The recommended width for larger river channels (>10m) is 35m to 60m and for smaller channels (<10m) is 20m or greater. The determined width should be tailored to site specific, river reach or lakeshore characteristics and their associated habitats. It is important that the buffer zone is large enough to protect the ecological integrity of the river (including emergent vegetation), the riparian zone (bank side vegetation including trees) and takes into account the human history of the area.</p>	<p>No. planning permissions close to water.</p> <p>Number of Part 8 applications with green and blue infrastructure measures</p>	
Population, Human Health			
P1 Protect, enhance and improve people's quality of life based on high quality residential, community, educational, working and recreational environments and on sustainable travel patterns.	<p>Increase in the number of green and blue space in settlements.</p> <p>Improved trends in perceived quality of life related to these matters.</p>	<p>No/area of green spaces and amenities available to the public as shown in public realm improvements</p> <p>Improved trends in perceived quality of life related to these matters as gathered through surveys.</p>	<p>MCC – URDF funding and other funding sources</p> <p>CSO – every six years in line with census</p> <p>MCC - Annual</p> <p>Iarnrod Eireann - Annual</p>

Strategic Environmental Objective	Target	Indicator/Data Sources	Source/Responsibility/Frequency
	<p>Bonds to ensure the completion of developments until taken charge.</p> <p>No significant deterioration in human health as a result of environmental factors.</p>	<p>Employment rates over the lifetime of the Plan.</p> <p>Completion handover of development to MCC</p> <p>Availability of public transport/ smarter travel initiatives.</p> <p>Occurrence of any decline in human health around the plan area.</p>	Bus Eireann – Annual
P2 To protect human health from hazards or nuisances arising from incompatible land uses/developments.	<p>No spatial concentrations of health problems arising from environmental factors.</p> <p>Number of complaints received from public relating to Noise, Air and Water Emissions.</p>	<p>Any occurrence of spatially concentrated deterioration in human health.</p> <p>Complaints to MCC Environment Section, Health and Safety Authority and EPA</p>	<p>CSO – every six years and as results arise on a yearly basis from the 2016 census</p> <p>Healthwell Database</p> <p>MCC – Annual</p>
Water			
W1 – Protect and enhance the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystem (quality, level, flow).	To achieve a Q rating of 4 ‘good’ quality status by 2021.	Biotic quality rating of river waters at EPA monitoring locations.	EPA – Annual as recorded through the WFD Monitoring Programme
W2– Maintain or improve the quality of surface water and groundwater (including estuarine) to status objectives as set out in the Water Framework Directive (WFD), the River Basin Management Plan and POMS.	Improvement or at least no deterioration in surface water quality by 2021	Changes in receiving water quality as identified during water quality monitoring for WFD, National RBMP conducted by MCC and EPA.	MCC EPA
W3– Reduce the impact of polluting substances to all waters and prevent pollution and	Improvement or at least no deterioration in surface and groundwaters by 2027 at the latest	Changes in receiving waters and groundwater quality as identified by water quality monitoring programmes conducted by MCC and EPA.	MCC - Annual EPA – Annual

Strategic Environmental Objective	Target	Indicator/Data Sources	Source/Responsibility/Frequency
contamination of ground water by adhering to aquifer protection plans and to maintain and improve the quality of drinking water supplies.			
W4 - Promote sustainable water use, water conservation and sources of water supply in the plan area and to maintain and improve the quality of drinking water supplies.	Pressure on water and waste water treatment plants.	Decrease in no. of water shortage notices issued during drought periods. Decrease in the amount of water consumed per household in the plan area.	MCC/Irish Water
W5—Protect flood plains and areas of flood risk from development through avoidance, mitigation and adaptation measures.	In accordance with OPW/DOEHLG, all planning applications within designated Flood Risk Zones A and B as identified in the Strategic Flood Risk Assessment for the plan are required to undertake Flood Risk Assessment. Increase in nature based solutions to flood risk and blue infrastructure measures	Level and location of flooding. Number of measures achieved in Goal 3 of Climate Ready Mayo. Number of NBS that form part of public realm, Part 8 applications.	MCC – Records obtained as and when flood events occur OPW –
Soil and Geology			
SG1 To maximise the sustainable re-use of the existing built environment, derelict, disused and infill sites (brownfield sites), rather than greenfield sites	NPF target of 30% urban development and 20% of rural developing on brownfield lands achieved over lifetime of the plan	Planning applicationsq	MCC annually

Strategic Environmental Objective	Target	Indicator/Data Sources	Source/Responsibility/Frequency
SG2 Conserve, protect and avoid loss of diversity and integrity of designated habitats, geological features, species or their sustaining resources in designated ecological sites.	No loss of diversity and integrity of designated habitats, geological features, species or their sustaining resources in designated ecological sites. Designation of sites as County Geological Sites.	Percentage of habitats, geological features, species etc. Lost over the lifetime of the Plan through trending of annual/bi-annual surveys. No. of areas designated as County Geological Sites.	GSI MCC
Material Assets			
Air Quality and Climate			
AQ1 Recognise the ecosystems functions of habitats in and around the plan area and promote nature-based solutions to climate change mitigation and adaptation.	Maintain and enhance ecosystems functionality in and around plan area Integrate nature-based solutions through planning applications, public realm plans, greenways and transport projects.	% land mapped for green and blue infrastructure in urban settings and along greenways. Enhancement of ecological networks/linkages through habitat creation/restoration	MCC
AQ2 Minimise all forms of air pollution and maintain/improve ambient air quality.	Maintain ambient air quality through reduction of private vehicle usage.	Air quality indicators.	MCC - Annual EPA - Annual
AQ3 Minimise emissions of greenhouse gases and contribute to a reduction and avoidance of human-induced global climate change.	Provide for increased use of public transport. Increase number of cycle lanes and pedestrian routes in the plan area. Establish incentives/increase no. of permissions for renewable energy projects.	Use of public transport. Provision of cycle lanes and walking routes. No. of grants given for insulation works; energy efficiency of new buildings – energy rating figures. No. of planning applications for residential houses with low carbon footprint.	MCC – Annual CSO – Annual as figures/reports based on 2016 census become available. MCC and SEAI – increase in BER rating at Small Area for towns identified. Number of Energy Retrofitting grants in County

Strategic Environmental Objective	Target	Indicator/Data Sources	Source/Responsibility/Frequency
		No. Of wind turbines permitted which may contribute to mitigation of, and adaptation to Climate Change. Location of permitted wind farms and other renewable energy projects as identified in the Co Mayo RES. w	MCC – No and type of planning applications in relation to low carbon residential housing and wind turbines and/or commencement of construction of such on an annual basis. SEAI
AQ4 Reduce car dependency within the plan area by way of an integrated approach to sustainable urban transport.	An increase in the percentage of the population travelling to work or school by public transport or non-mechanical means. A decrease in the average distance travelled to work or school by the population of the plan area.	Percentage population within the plan area travelling to work or school by public transport or non-mechanical means. Average distance travelled to work or school by the population of the plan area.	CSO – every 6 years through census information.
Material Assets – Waste			
MA1 Avoid and minimise waste generation	Reduction in the quantities of waste sent to landfill.	Quantity of household waste sent to landfill.	MCC Environment Section
MA2 Maximise reuse of material resources and use of recycled materials	Increase in the quantities of waste sent for recycling. Increase in the number of bring banks in the plan area. Compliance with the Region Waste Management Plan	Quantity of household waste sent to recycling Number of repair/ reuse initiatives over plan lifetime	Connaught Waste Management annual report
Material Assets -energy			
MA3 Minimise energy consumption and encourage use of renewable energy	Increase in renewable energy developments. Adaptive reuse of town centre buildings	No. of renewable energy developments granted planning permission. Establishment of R&D projects (one or more).	MCC – new solar farms, windfarms or other renewable energy developments granted.

Strategic Environmental Objective	Target	Indicator/Data Sources	Source/Responsibility/Frequency
		<p>Meet or exceed County contributions to national renewable energy targets.</p> <p>Meet or exceed County contributions to national energy efficiency/conservation targets.</p> <p>Number of houses increasing BER rating to B3</p>	<p>– number of new R&D projects within the Plan area e.g., testing of tidal energy devices.</p> <p>Regional Assembly for the Northern and Western Region</p> <p>Marine Institute</p> <p>SEAI</p>
Material Assets -Transport			
MA4 Promote sustainable transport patterns and modes	<p>An increase in provision of cycle lanes and pedestrian routes.</p> <p>An increase in population travelling to work and school by public transport or non-motorised transport.</p> <p>A reduction in the distance travelled to work or school by the population of the plan area.</p>	<p>No. of cycle lanes and pedestrian routes provided in the plan area.</p> <p>Percentage of the population within the plan area travelling to work or school by public transport or non-mechanical means.</p> <p>Average distance travelled to work or school by the population of the plan area.</p> <p>Number of private cars on road as a percentage of Annual Average Daily Traffic (AADT).</p>	<p>MCC</p> <p>CSO – every 6 years through census information.</p> <p>TII</p>
Material Assets – Waste Water			
MA5 To maximise the capacity of wastewater collection networks by excluding surface water run-off from the sewage network through the use of SUDs and Blue/green Infrastructure.	The most recent wastewater treatment capacity register, issued to Mayo County Council, in June 2022 indicates the current spare capacity is approximately 9,800pe.	WWTP currently has capacity for the planned population growth for Castlebar	<p>Irish Water -Achievement of Water Services Strategic Plan objectives.</p> <p>MCC – granting of permission conditioned based on a future WWTP upgrade.</p>

Strategic Environmental Objective	Target	Indicator/Data Sources	Source/Responsibility/Frequency
			MCC – refusal of permission as no upgrade to WWTP due to take place.
Cultural Heritage			
CH1 Conserve, preserve and record architectural and archaeological heritage	No permitted development which involves loss of cultural heritage, including protected structures, archaeological sites, Architectural Conservations Areas and landscape features.	No. of developments permitted during the lifetime of the plan which will result in the loss or partial loss of protected structures or sites of archaeological status. No. of additions to the list of Protected Structures. No. of additions to the list of Architectural Conservation Areas. Development of cultural heritage areas for amenity resources.	MCC - ongoing
CH2 Avoid and minimise effects on historic environment features through sensitive design and consultation.	Increase in consultation and engagement with statutory bodies. Increase in architectural heritage impact assessments	No. of applications which are referred to the Conservation and Heritage Officers.	MCC - ongoing
CH3 Support and enhance both tangible and intangible cultural heritage	Increase in awareness of cultural heritage Increase in use of Irish Language Reverse island population trend	No. planning applications for restoration/re-use of vacant and derelict structures. No of Irish Language speakers No of Irish Language Impact assessment Population of Islands	MCC – ongoing CSO
Landscape			

Strategic Environmental Objective	Target	Indicator/Data Sources	Source/Responsibility/Frequency
L1 Ensure no significant disruption of historic/cultural landscapes and features through objectives of the County Development Plan	<p>. No significant visual impact from development.</p> <p>Ensure no significant disruption of high landscape values.</p>	<p>No. of developments permitted and their impacts on cultural/historic landscapes.</p> <p>No. of developments located within Scenic Route or no degradation of Coastal Areas</p> <p>No. of developments located within a designated scenic view in Co Mayo that disrupt views (based on the LCA).</p> <p>Development and application of framework in relation to the application of LCA and their contribution to SEA.</p>	<p>CCC – ongoing</p> <p>Heritage Council - ongoing</p> <p>Fáilte Ireland - ongoing</p> <p>GSI - ongoing</p> <p>NPWS - ongoing</p> <p>EPA SEA Unit in conjunction with CCC</p>
L2 Promote and enhance landscape character at county and local scale through sensitive siting and design	<p>Maintain and enhance landscape quality within the plan area by minimising visual impacts through appropriate design, assessment and siting.</p> <p>Number of applications referencing Rural Housing Guidelines</p> <p>Number of applications reflecting native tree /hedgerows and local stone treatments</p>	<p>No. of developments located within a high landscape area that disrupt views</p> <p>No of large-scale developments permitted with Visual Impact Assessment prepared</p> <p>Km of additional hedgerow /treelines planted</p>	<p>MCC - ongoing</p>

