

CONSOLIDATED SEA ENVIRONMENTAL REPORT APPENDIX II – NON-TECHNICAL SUMMARY

FOR

VARIATION No. 3 TO THE GALWAY CITY DEVELOPMENT PLAN 2023-2029 (AS VARIED)

**THIS REPORT IS AN UPDATED VERSION OF THE ORIGINAL SEA ENVIRONMENTAL REPORT
APPENDIX II – NON-TECHNICAL SUMMARY THAT WAS PLACED ON PUBLIC DISPLAY
ALONGSIDE THE PROPOSED VARIATION**

for: Galway City Council



**Comhairle Cathrach na Gaillimhe
Galway City Council**

by: CAAS Ltd.



JUNE 2026

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Section 1 Introduction and Terms of Reference

This is the final, Consolidated Non-Technical Summary of the Strategic Environmental Assessment (SEA) Environmental Report for Variation No. 3 to the Galway City Development Plan 2023-2029, as varied. The purpose of the Environmental Report is to provide a clear understanding of the likely environmental consequences of decisions regarding the adoption and implementation of the Variation. The final, Consolidated SEA Environmental Report has been prepared as part of an SEA process for the Variation. It is an updated version of the SEA Environmental Report that was placed on display alongside the Proposed Variation and has taken into account submissions received and changes to the original Proposed Variation that were made in response to submissions received.

What is SEA?

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

Why is SEA needed? The Benefits

SEA is the planning authority's and the public's guide to what are generally the best areas for development.

SEA has enabled the planning authority to direct development under the Variation towards what are generally robust, well-serviced and connected areas – thereby facilitating the general avoidance of incompatible development in the most sensitive, least well-serviced and least well-connected areas. This approach will contribute towards environmental protection and sustainable development, including climate mitigation and adaptation

Compact development can be accompanied by placemaking initiatives to enable Galway City to become a more desirable place to live, work and visit.

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

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

How does the SEA work?

All of the main environmental issues were assembled and considered by the team who prepared the Variation. This helped them to devise a Variation that contributes towards the protection and management of environmental sensitivities. It also helped to identify wherever potential conflicts between the Variation and the environment exist and enabled these conflicts to be mitigated. The SEA was scoped in consultation with designated environmental authorities.

What is included in the Environmental Report that accompanies the Variation?

- A description of the environment and the key environmental issues;
- A description and assessment of alternatives for the Variation;
- An assessment of the provisions of the Variation; and
- Mitigation measures, which will avoid/reduce the environmental effects of implementing the Variation and will contribute towards compliance with important environmental protection legislation.

Difficulties Encountered during the SEA process

No significant difficulties have been encountered during the undertaking of the assessment.

What happens at the end of the process?

An SEA Statement is prepared which summarises, inter alia, how environmental considerations have been integrated into the Variation.

Section 2 The Variation

2.1 Overview of Variation No. 3

The Galway City Development Plan 2023-2029, provides for sustainable development and proper planning within the administrative area of Galway City Council. Variation No. 3 arises from the National Planning Framework Implementation: Housing Growth Requirements Guidelines for Planning Authorities issued under Section 28 of the Planning and Development Act 2000 (as amended) which place a statutory obligation on planning authorities to ensure that the necessary planning framework is in place including sufficient residential zoned land to facilitate the achievement of housing growth requirements over the plan period.

Galway City Council has reviewed its City Development Plan with regard to the new housing growth requirements. The existing Development Plan Core Strategy (which was prepared having regard to the requirements of the previous 'Housing Supply Target Methodology Guidelines, 2020) provided sufficient residential zoned land to meet the original, adopted housing supply target. However, the Revised National Planning Framework and the National Planning Framework Implementation Guidelines have set a new, higher housing target. In addition, there is a facility to include up to 50% "additional provision" of zoned lands as headroom. In considering this review, the City Council must identify serviced and serviceable lands and enabling infrastructure.

The housing growth targets are based on ESRI modelling of population growth, structural housing demand, and unmet need, and must be integrated into the City Development Plan. For Galway City Council, this means revising the Development Plan to ensure additional capacity for the delivery of housing. This includes revised housing targets, ensuring adequate zoning and infrastructure to support compact growth and meet projected demand in line with national objectives.

The new annual housing growth requirement for Galway City is 790 units per annum up to 2034, which is an increase of 51 units per annum. The Guidelines also request Local Authorities consider additional provision (up to 50%) beyond the baseline housing growth requirement and unmet demand, which amounts to an additional 395 units per annum. Therefore, the combined additional housing growth requirement for Galway City for 2025-2034 inclusive is 4,460 additional residential units.

Galway City Council's approach to meeting the Government's revised housing growth requirements is a targeted, plan-led strategy to deliver additional housing in the short, medium and long term in line with Ministerial Guidelines. The emerging strategy focuses on four key areas:

1. Regeneration lands (including City Hall environs and adjustments to the Sandy Quarter to improve viability and connectivity),
2. Infill densification in inner suburban and public transport adjacent locations (with clearer development management standards),
3. Targeted greenfield zoning—including a first phase review at Ardaun and a new transport orientated coastal community at Murrough (capacity up to 2,500 homes, sequenced with rail crossing, wastewater and flood resilience works), additional lands to be zoned at Merlin, Roshill and Letteragh, and
4. Priority Area Plans for Castlegar and Doughiska to provide ten-year guidance on land use, density and enabling infrastructure.

This integrated approach ensures sustainable growth, compact development, and strategic regeneration while aligning with guidelines on flexibility, phasing, and infrastructure planning.

To align with the Government's revised housing growth requirements, Galway City Council has amended the Written Statement of the Galway City Development Plan 2023-2029 and the land use zoning designations shown on the Development Plan Maps.

2.2 Strategic work undertaken by the Council to ensure evidence-based planning

In preparing the Variation, information relating to various sectors, from different Departments within the Council and from different bodies and organisations, was gathered and analysed, contributing towards the development of evidence-led provisions. This work included: preparing the SEA Environmental Report, which this Non-Technical Summary is appended to; preparing an Appropriate Assessment Natura Impact Report; preparing a Strategic Flood Risk Assessment Report; a Settlement Capacity Audit Update; and considering information on capacity/delivery with respect to water/wastewater, and transport infrastructure.

The undertaking of the SEA process was part of this strategic work and contributed towards the integration of environmental considerations into the Variation as summarised in Section 6 of this report.

2.3 Relationship with other relevant Plans and Programmes

It is important to note that when reading the Variation, the provisions of the City Development Plan are relevant and, in this regard, both documents should be read in tandem with each other.

The City Development Plan sits within a hierarchy of statutory documents setting out public policy for, among other things, land use planning, infrastructure, sustainable development, tourism, environmental protection and environmental management. The Variation must comply with relevant higher-level strategic actions and will, in turn, guide lower-level strategic actions. These documents have been subject to their own environmental assessment processes, as relevant.

The First Revision of the National Planning Framework sets out Ireland's planning policy direction up to 2040. The National Planning Framework is to be implemented through Regional Spatial and Economic Strategies and lower tier Development Plans and Urban Area Plans. The Regional Spatial and Economic Strategy for the Northern and Western Region sets out objectives for land use planning, tourism, infrastructure, sustainable development, environmental protection and environmental management that have been subject to environmental assessment and must, as relevant and appropriate, be implemented through the City Development Plan to be varied.

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

Section 3 The Environmental Baseline

3.1 Introduction

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

3.2 Likely Evolution of the Environment in the Absence of a Variation

In the absence of a Variation, the framework for development across the Area Plan settlements would be provided by the City Development Plan and other related documents. There would be no Variation to provide additional detail beyond that provided already through the existing planning framework as how to achieve sustainable development and environmental protection and management.

As a result, there would be both:

- A decreased likelihood in the extent, magnitude and frequency of the positive environmental effects identified by this assessment occurring; and;
- An increased likelihood in the extent, magnitude and frequency of the adverse environmental effects identified by this assessment occurring.

3.3 Biodiversity and Flora and Fauna

European sites comprise Special Areas of Conservation¹ (SACs) and Special Protection Areas² (SPAs). Such sites within a 15 km buffer around the area to which the Variation relates are mapped on Figure 3.1).

Such sites within a 15 km buffer around the City are mapped on Figure 3.1. There is a total of 18 European sites (13 SACs and five SPAs) designated within and within 15 km of the Plan boundary.

Four of these European sites are designated within the City boundary: Galway Bay Complex SAC (Site Code: 000268); Lough Corrib SAC (Site Code: 000297); Inner Galway Bay SPA (Site Code: 004031); and Lough Corrib SPA (Site Code: 004042).

Land cover is the observed physical cover, as seen from the ground or through remote sensing, including for example natural or planted vegetation, water and human constructions which cover the earth's surface. The CORINE 2018³ mapping (shown on Figure 3.2) identifies that the most dominant land cover type within the City area is urban fabric. Areas of industrial or commercial units, green urban areas, coastal lagoons and inland marshes are also identified within the central urban areas. Other land cover types identified within and adjacent to the City area include: pastures, peat bogs, land principally occupied by agriculture with significant areas of natural vegetation, sparsely vegetated areas, mixed forest, industrial or commercial units and sport and leisure facilities, water intertidal flats and the sea and ocean.

¹ SACs have been selected for protection under the European Council Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC) due to their conservation value for habitats and species of importance in the European Union. The Habitats Directive seeks to establish Natura 2000, a network of protected areas throughout the EU. It is the responsibility of each member state to designate SACs to protect habitats and species, which, together with the SPAs designated under the 1979 Birds Directive, form Natura 2000. The European Communities (Birds and Natural Habitats) Regulations 2011 consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010. The Regulations have been prepared to address several judgments of the Court of Justice of the European Union (CJEU) against Ireland, notably cases C-418/04 and C-183/05, in respect of failure to transpose elements of the Birds Directive and the Habitats Directive into Irish law.

² SPAs have been selected for protection under the 1979 European Council Directive on the Conservation of Wild Birds (79/409/EEC) - referred to as the Birds Directive - due to their conservation value for birds of importance in the EU.

³ The CORINE (Co-ordinated Information on the Environment) land cover data series was devised as a means of compiling geo-spatial environmental information in a standardised and comparable manner. CORINE has become a key data source for informing environmental and planning policy on a national and European level. The main land cover type in Ireland is agricultural land including forestry, which accounts for two-thirds of the national landmass. Most of this is permanent grassland pastures. Peatlands and wetlands are the second most widespread land cover type, covering almost one-fifth of the country. While forested areas cover about one-tenth of the country. Despite rapid development in the past two decades, Ireland's landscape is predominantly rural and agricultural.

Categories from CORINE mapping that may indicate areas with the potential for Annex I habitats, include:

- Intertidal flats;
- Coastal lagoons;
- Water bodies;
- Water courses;
- Inland marshes;
- Sparsely vegetated areas;
- Mixed forests; and
- Peat bogs.

Natural Heritage Areas (NHAs) are designated due to their national conservation value for ecological and/or geological/geomorphological heritage. They cover nationally important semi-natural and natural habitats, landforms or geomorphological features, wildlife plant and animal species or a diversity of these natural attributes. NHAs are designated under the Wildlife (Amendment) Act 2000. Proposed NHAs (pNHAs) were published on a non-statutory basis in 1995, but have not since been statutorily proposed or designated. There are 18 pNHAs within a 15 km buffer zone of the Variation area, out of which the Lough Corrib pNHA (Site Code: 000297) is situated within the City boundary. There are two NHAs designated within a 15 km buffer zone of the Variation area, out of which the Moycullen Bogs NHA (Site Code: 002364) is situated within the City boundary.

The Salmonid Regulations (S.I. 293/1988) designate the waters capable of supporting salmon (*Salmo salar*), trout (*Salmo trutta*), char (*Salvelinus*) and whitefish (*Coregonus*) as protected. 34 (no.) rivers, tributaries and lakes are listed and protected under these Regulations that prescribe quality standards for salmonid waters, the sampling programmes and the methods of analysis and inspection to be used by local authorities to determine compliance with the standards. Sections of the Corrib are listed under the Regulations.

The Galway Biodiversity Action Plan 2014-2024 expanding on the original network identified in City Habitats Inventory 2005, identifies the River Corrib as a main wildlife corridor, which provides a link between the coast and the rich mosaic of habitats in the city's hinterland. As identified in the Galway City Development plan 2023-2029, the City has a network of Local Biodiversity Areas which also have high nature conservation value. These Local Biodiversity Areas can be classified into a range of different habitats such as lakes, exposed limestone pavement, woodlands, wetlands and peatland, all making an important contribution to biodiversity and amenity within the City, including:

- **Rusheen Bay-Barna Woods - Illaunafamona** - a variety of habitats located around the intertidal area of Rusheen Bay including Barna Woods. The entire area is designated as either a SAC and/or SPA. Lough Rusheen is designated a Wildfowl Sanctuary under the Wildlife Acts 1976 & 2000.
- **Cappagh - Ballymoneen** - an area of blanket bog, fen, wet grassland and scrub located between Cappagh and Ballymoneen Roads.
- **Ballagh - Barnacranny Hill** - Connemara peatland, including blanket bog, fen, wet grassland, heathland and scrub, located east of Tonabrocky. This area is designated a NHA, Moycullen Bog NHA.
- **Mutton Island and nearby shoreline** - intertidal area is a designated SPA.
- **Lough Atalia and Renmore Lagoon** - Lough Atalia and the intertidal area at Renmore, except the Renmore Lagoon, is designated a SPA. Lough Rusheen is designated a Wildfowl Sanctuary under the Wildlife Acts 1976 & 2000.
- **River Corrib and adjoining wetlands** - the River Corrib and the associated wetlands is a designated SAC and a Salmonid River.
- **Menlough - Coolough Hill** - area includes oak-ash-hazel woodland at Menlo Woods and exposed limestone rock, calcareous grassland and small turlough.
- **Ballindooley - Castlegar** - area centred on Ballindooley Lough, includes fen, reed swamp, wet grassland, scrub and exposed limestone rock. The Castlegar area contains smaller areas of wet grassland, scrub and exposed limestone.
- **Ballybrit Racecourse** - large open area of species-rich calcareous grassland.
- **Merlin Park Woods** - mature broad-leaf trees, mixed broad-leaf/conifer woodlands.
- **Doughisk** - area of exposed limestone rock with calcareous grassland and scrub located along the eastern boundary of the city. The grassland contains orchid species and protected small white orchid.
- **Roscam** - relatively undisturbed examples of salt marsh, shingle banks, brackish lagoon, sandy shore and muddy sand shore, with calcareous grassland and scrub.

Other areas/features of local importance in the City, include:

- **Terryland Forest Park** - young urban forest of native broad-leaf trees and pockets of wetland vegetation located on both sides of Terryland/Sandy River.
- **City Canal System** - western part of the city and one artery to the east of the Corrib River at Newtownsmyth.
- **Waterbody** - small lake adjoining residential development on Headford Road.
- **Cave, Merlin Park** - a limestone cave near railway bridge.
- **Terryland Glenanail** - a small river flowing from the south-eastern corner of Lough Corrib.
- **Cooper's Cave Terryland** - square bedding cave chamber located northeast of the Terryland River sink.

- **Murrough** - the area at the Murrough supports a number of habitats of high biodiversity value, including habitats listed under Annex I of the Habitats Directive as well as habitats such as woodland, scrub, treeline, hedgerow and grassland habitats which provide high biodiversity in a local context and provide connectivity to the wider landscape. This area also has potential to supporting populations of protected faunal species, particularly those associated with the nearby designated sites. Areas of elevated ecological sensitivity arising high botanical species diversity, Annex I status habitats, location in relation to designated sites and/or importance for breeding bird species are found at this site.

Existing Problems

Ireland's Article 17 report on the Status of EU Protected Habitats and Species in Ireland (NPWS/DHLGH, 2025) provides the most recent assessment of EU-protected habitats and species in Ireland. The report confirms that the overall conservation status of habitats remains poor, with 90% assessed as unfavourable and over half showing declining trends. While some species are better - 58% are in favourable status and many exhibit stable or improving trends - the report highlights that significant pressures persist, despite ongoing positive actions and targeted conservation measures.

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

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

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

3.4 Population and Human Health

The results of Census 2022 recorded a population of 85,910 persons within Galway City and Suburbs. The Galway City is identified as a Metropolitan Area in the National Planning Framework.

The First Revision of the NPF was approved and published in April 2025. It identified the need to plan for approximately 50,000 additional households per annum to 2040 at national level. Arising from this, the Government issued Guidelines entitled NPF Implementation: Housing Growth Requirements under Section 28 of the Planning and Development Act (2000 as amended) to implement and interpret the national targets at county level. In order to implement the objectives of these guidelines, including increased housing targets for Galway City, it is necessary to vary the CDP 2023-2029 to revise the Core Strategy contained in Chapter One of the Plan and increase the quantum of land zoned for residential purposes.

The population provided for by the Variation will interact with various environmental components. Potential interactions include:

- Recreational and development pressure on habitats and landscapes;
- Contribution towards increase in demand for waste water treatment at the municipal level;
- Contribution towards increase in demand for water supply and associated potential impact of water abstraction;
- Potential interactions in flood-sensitive areas; and
- Potential effects on water quality.

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

In the absence of mitigation, contaminated materials have the potential to adversely impact upon human health, water quality and habitats and species. As is the case with other urban, semi-urban and port areas across the country, there is potential for contamination at sites within the City, especially where land uses occurred in the past, in the absence of environmental protection legislation.

Existing Problems

The number of homes within Galway City with radon levels above the reference level is within the normal range experienced in other locations across the country.

Sources of flood risk within the City include: coastal; fluvial; pluvial (rainwater); and surface drainage systems sources. There is historic and predictive evidence of flooding throughout the City.

3.5 Soil

The most dominant soil types⁴ surrounding the built-up areas⁵ of Galway City are: brown earths (well-drained mineral soils, associated with high levels of natural fertility). Other soil types occurring in the City include: lithosol soils (shallow soils, consisting of partially weathered rock fragments); alluvial soils (associated with alluvial clay, silt or sand river deposits); peats (ombrotrophic); rock; tidal marsh; and islands.

The GSI (Geological Survey Ireland) have a suite of data sources available that would be useful in planning and assessing individual projects with regard to the environmental topic(s) of soil and/or material assets. These include:

- Aggregate Potential Mapping;
- Bedrock mapping;
- Quaternary and Physiographic mapping; and
- National Aquifer and Recharge mapping.

Geological Survey Ireland coordinate the Irish Geological Heritage Programme, whereby an objective has been set to identify and select sites of geological interest within each county across the country. County Geological Sites (CGSs) do not receive statutory protection like Natural Heritage Areas but receive an effective protection from their inclusion in the planning system. There are 14 CGSs designated within or adjacent to the City (including two sites in the administrative area of County Galway).

The term "landslide" describes a wide variety of processes that result in the downward and outward movement of materials such as rock, debris, earth, mud and peat under the force of gravity. Issues such as existing ground conditions, slope stability and storage of excavated material have the potential to influence susceptibility to landslides/bog bursts. The potential impacts of landslides include loss of human life/injury, flooding, pollution of watercourses and impacts upon aquatic biodiversity. There have been no (known) landslide events recorded within Galway City.

Existing Problems

Legislative objectives governing soil were not identified as being conflicted with.

3.6 Water

Since 2000, Water Management in the EU has been directed by the Water Framework Directive 2000/60/EC (WFD). The WFD requires that all Member States implement the necessary measures to prevent deterioration of the status of all waters - surface, ground, estuarine and coastal - and protect, enhance and restore all waters with the aim of achieving *good status*. All public bodies are required to coordinate their policies and operations so as to maintain the *good status* of water bodies that are currently unpolluted and improve polluted water bodies to *good status*.

Catchments draining Galway City are Galway Bay North, Corrib and Galway Bay South East. The main rivers in Galway City are the Rivers Corrib, Terryland, Knocknacarragh and Barna.

The current WFD status (2019-2024)⁶ of waterbodies that drain Galway City ranges from *good* to *poor*. The current WFD status (2019-2024) of surface waterbodies that drain Galway City are identified as being:

- *good* (Corrib_010; Corrib_020; Corrib Lower; Menlough; Transitional Waterbody Corrib Estuary; and Coastal Waterbody Inner Galway Bay North);
- *moderate* (Barna (Stream)_010; Terryland_010; and Transitional Waterbody Oranmore Bay); and
- *poor* (Carrowmoneash (Oranmore)_010; and Knocknacarragh_010).

⁴ All soil types belong to a Sub-Group and so in turn to one of the 11 soil Great Groups. Great Groups and Sub-Groups are a hierarchical arrangement of soils used for taxonomical classification (<http://gis.teagasc.ie/soils/soilguide.php>).

⁵ The built-up areas are mainly made up of urban soils. Urban soils are soils, which have been disturbed, transported or manipulated by human activity in the urban environment and are often overlain by a non-agricultural, man-made surface layer that has been produced by mixing, filling or by contamination of land surfaces in urban and suburban areas.

⁶ As per EPA's WFD Status 2019-2024 classification (<https://gis.epa.ie/EPAMaps/>).

Subject to exemptions provided for by Article 4 of the WFD, the water bodies of moderate and poor status above will need improvement in order to comply with the objectives of the WFD.

The WFD status (2019-2024) of groundwater underlying Galway City is currently identified as being of *good* status and meeting the objectives of the WFD.

Figure 3.3 illustrates the WFD surface and ground water status within and surrounding Galway City.

A Strategic Flood Risk Assessment (SFRA) document accompanies this SEA Environmental Report and the Variation. Requirements in relation to SFRA are provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (Department of Environment and Office of Public Works, 2009) and associated Department of the Environment, Community and Local Government Circular PL2/2014.

Flood risk management and drainage provisions are already in force through the Galway City Development Plan 2023-2029. Predictive flood risk mapping is available from the Office of Public Works and included in the accompanying Strategic Flood Risk Assessment. Sources of flood risk within Galway City include: coastal; fluvial; pluvial (rainwater); and surface drainage systems sources.

There is historic and predictive evidence of flooding throughout the City.

Existing Problems

Subject to exemptions provided for by Article 4 of the WFD, based on available water data, the recorded status of certain water bodies will need improvement in order to comply with the objectives of the WFD. The Variation includes provisions that will contribute towards improvements in the status of waters.

There is elevated levels of flood risk from fluvial sources at various locations across Galway City. The preparation of the Variation, SEA and SFRA have taken place concurrently and the findings of the SFRA have informed both the Variation and the SEA.

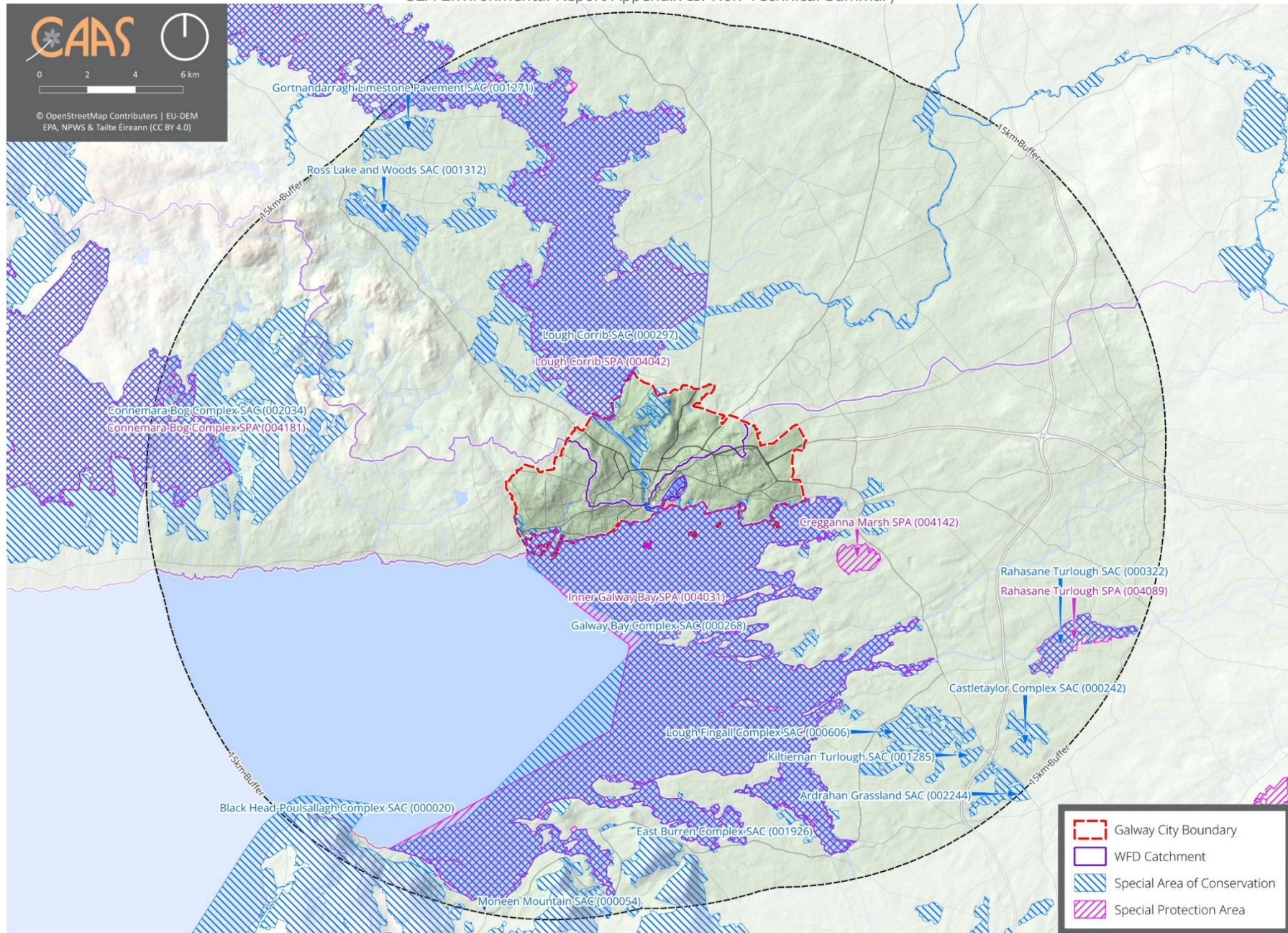


Figure 3.1 European Sites within and within 15 km buffer of Galway City

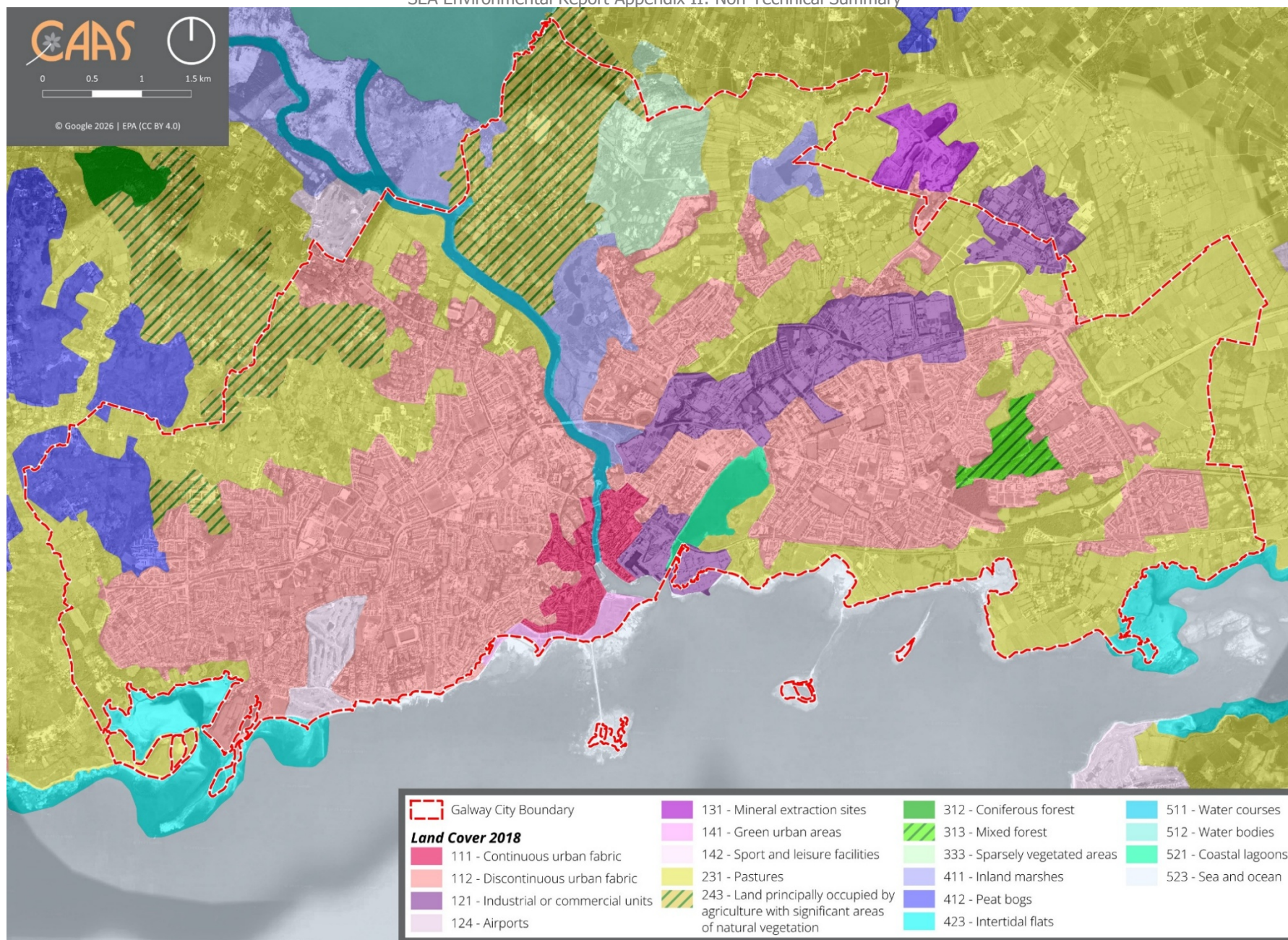


Figure 3.2 CORINE Land Cover Mapping 2018

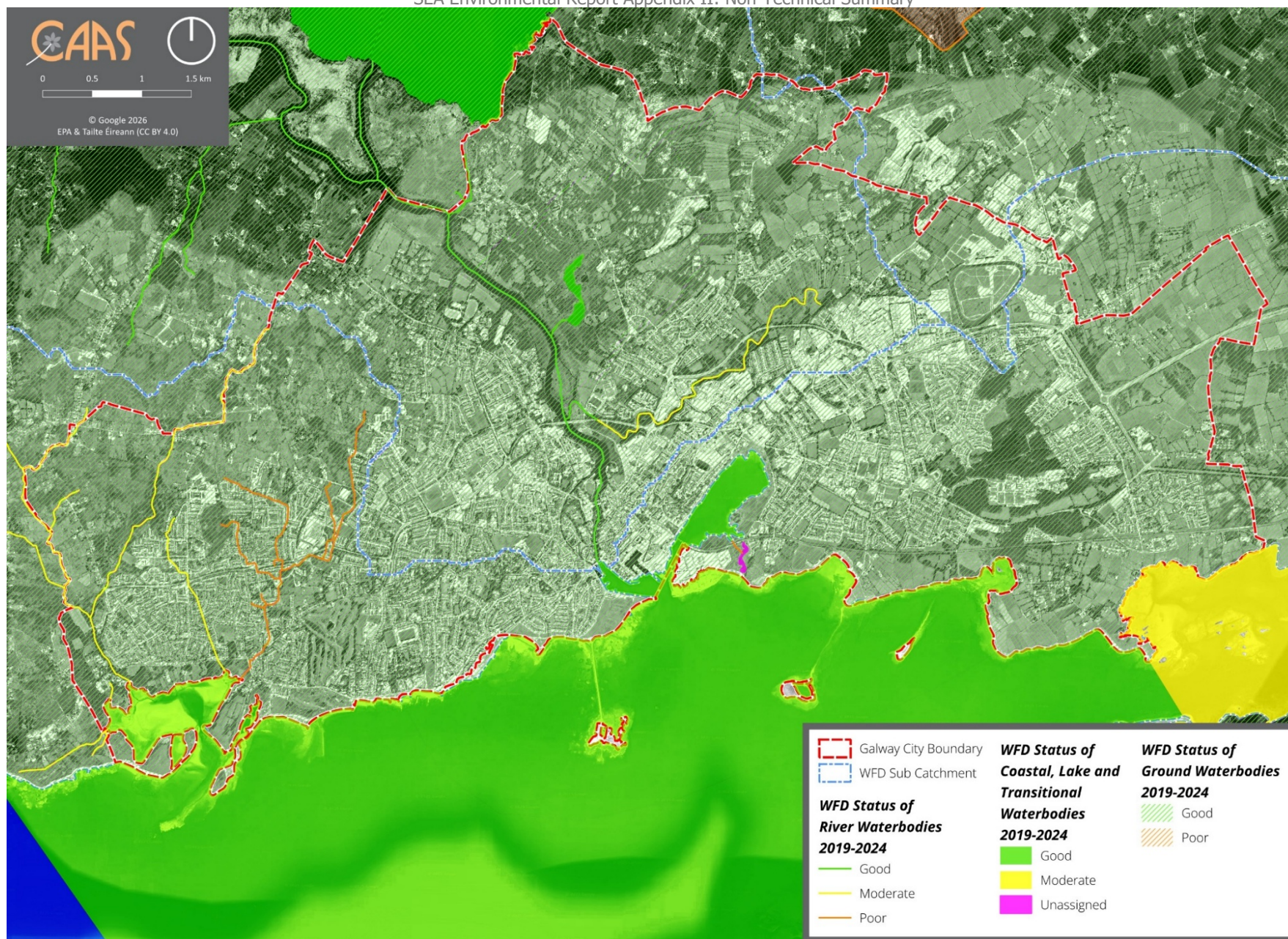


Figure 3.3 Surface and Ground Water Status (2019-2024)

3.7 Air and Climatic Factors

Total emissions of greenhouse gases by humans come from various sectors including transport, agriculture, energy industries, manufacturing combustion, industrial processes, residential developments, commercial services developments, waste management processes and fluorinated gases equipment (such as refrigeration and fire protection systems).

In 2023, Ireland's greenhouse gas emissions are estimated to be 55.01 million tonnes carbon dioxide equivalent (Mt CO₂ eq), which is 6.8% lower (or 4.00 Mt CO₂ eq) than emissions in 2022 (59.00 Mt CO₂ eq) and follows a 2.0% decrease in emissions reported for 2022. Emissions are 1.2% below the historical 1990 baseline for the first time in 33 years. In 2023, emissions in the stationary EU Emissions Trading System emissions (covering emissions from sectors including Agriculture, Transport, Energy, Industries, Residential, Manufacturing Combustion and Industrial Processes) decreased by 17%. When land use, land-use change and forestry is included, total national emissions decreased by 3.8%. Emissions under the Effort Sharing Regulation (covering emissions from the electricity and heat generation, industrial manufacturing and aviation sectors) decreased by 3.4%. Decreased emissions in 2023 compared to 2022 were observed in the largest sectors except for transport which showed an increase of 0.3%.

Climate mitigation describes the action to reduce the likelihood of climate change occurring or reduce the impact if it does occur. This can include reducing the causes of climate change (e.g. emissions of greenhouse gases) as well as reducing future risks associated with climate change. The National Climate Action Plan 2025 is the third statutory update to the plan since the Climate Action and Low Carbon Development (Amendment) Act 2021 was signed into law, committing Ireland to 2030 and 2050 targets for reducing greenhouse gas emissions. It builds on Climate Action Plan 2024, outlining how Ireland will accelerate the actions required to respond to the climate crisis, putting climate solutions at the centre of Ireland's social and economic development.

Climate adaptation is a change in natural or human systems in response to the impacts of climate change. These changes moderate harm or exploit beneficial opportunities and can be in response to actual or expected impacts. The National Adaptation Framework (2024) aims to create a unified approach involving both government and society to adapt to climate change. It outlines how various sectors and local authorities can implement adaptation measures to minimise Ireland's vulnerability to climate change's adverse effects while taking advantage of any beneficial impacts. The Framework emphasises the importance of integrating adaptation strategies into all levels of policy making, infrastructure development, and local planning.

The Galway City Council Climate Action Plan 2024-2029 sets out mitigation, adaptation and other climate measures to create a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy in Galway City. The Climate Action Plan sets out actions across thematic climate action areas including:

- Governance and Leadership;
- Energy and Built Environment;
- Communities and Partnership;
- Circular Economy;
- Land Use and Green Infrastructure;
- Transport;
- Adaptation to Climate Risk.

The EPA's (2025) *Air Quality in Ireland 2024 Report* is based on data from Ireland's extensive air monitoring network of 115 stations. It reveals that, while Ireland currently meets EU air quality standards, it is projected to fall short of the stricter air quality standards set for 2030 under the new Ambient Air Quality Directive. The new EU Directive, part of the Zero Pollution Action Plan, aims to reduce premature deaths from air pollution by 55% by 2030. Ireland faces significant challenges in meeting these targets, with projected compliance levels of only 93 per cent for fine particulates (PM_{2.5}) and 78% for nitrogen dioxide (NO₂). Ireland also continues to fall short of achieving the more stringent World Health Organization health-based 2040 guidelines for several key pollutants. The report identifies that the primary sources of air pollution in Ireland are solid fuel burning and traffic emissions. The European Environment Agency estimates that in Ireland, more than 1,700 premature deaths annually are attributable to air pollution.

Existing Problems

Significant progress is being made in the reduction of Ireland's greenhouse gas emissions. The EPA's 2024 publication Ireland's Greenhouse Gas Emission Projections 2023-2040 identifies that Ireland's emissions, under the Emissions in the 'Planned Additional Measures' scenario, which includes most 2024 Climate Action Plan measures, are projected to be 29% lower in 2030 (compared with 2018). However, this would not meet the 51% emissions reduction target (by 2030 compared to 2018) based on these projections.

In the Climate Change Advisory Council's *Annual Review 2024*, the findings of an assessment of the degree to which progress is being made solely in the implementation of adaptation policy and increasing resilience for the period April 2023 to March 2024 is provided. The Review details that four sectors (Transport, Flood Risk Management, Built and Archaeological Heritage and Local Government) demonstrated good overall progress, six showed moderate progress (Agriculture, Forestry and Seafood, National Adaptation Framework, Communications Networks, Water Quality and Water Services Infrastructure, Health and Electricity and Gas Networks) and one (Biodiversity) showed no progress and supplied insufficient evidence. This was a slight improvement compared with the results in 2023.

Air quality and noise can present challenges, especially in urban areas. With regard to air quality, air pollution from transport is dominated by NO_x emissions. Of these, NO₂ is particularly impactful from a health perspective. The Variation will help to facilitate reductions in emissions and a transition from dependence on fossil fuel combustion powered transport.

3.8 Material Assets

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

Public Assets and Infrastructure

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

Land

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

Coastline

The City's coastline, including that which is within and adjacent to the Variation area, is amongst the most sensitive and valuable resources in terms of natural and cultural heritage, scenic beauty and recreation. The coast is also an important economic resource - particularly for the fishing, aquaculture, leisure and tourism industries.

Green Infrastructure

There is a variety of green infrastructure throughout the area to which the Variation relates. Parks and open space promote health and well-being, provide recreational facilities and range of habitats for various species. Green Infrastructure is also a crucial component in building resilient communities capable of adapting to the consequences of climate change with trees, woodlands and wetlands providing carbon capture and slowing water flows while improving air quality.

Woodland

Woodlands throughout the City provide recreational opportunities in addition to their heritage and economic benefits. They are a valuable resource in terms of biodiversity, recreation and tourism, and also important as links in the green infrastructure network.

Transport

Galway City is well connected to the M6 and M17/M18, with links to Tuam, Athlone, Limerick and Dublin. Other national roads, including the N59, N67, N83 and N84 provides links to Sligo and other towns within

County Galway. Galway City is served by Irish Rail with routes to Dublin Heuston, Limerick and Athlone. Ceantú Station is located within Eyre Square, in the City Centre. Galway City is also served by bus via Bus Éireann and City Direct services. City Direct services have a number of routes throughout the City. Bus Éireann provides routes throughout the city and country, with routes to Derry, Donegal, Sligo, Cork and Ballina. National, regional and local roads provide vital links between the town and retail, service and employment centres throughout the County and to adjoining counties

Water Services

Uisce Éireann, working in partnership with Galway City Council, is making investments to undertake essential upgrade works to waste water treatment plants in the City. Uisce Éireann is responsible for providing and maintaining adequate public water supply infrastructure throughout Galway City.

Based on the EPA's assessment of monitoring information provided by Uisce Éireann and the enforcement activities carried out by the EPA, the EPA identifies urban areas with the most important environmental issues that must be addressed. There is currently no Wastewater Treatment Plants (WWTPs) within Galway City, listed as priority areas.⁷

As indicated by Uisce Éireann, there is spare capacity available in the Mutton Island WWTP within Galway City and Suburbs.⁸

The Mutton Island WWTP has a current design capacity of 170,000 Population Equivalent (PE)⁹, with a current (2024) load of 142,911 PE. The WWTP is currently fully compliant with the wastewater discharge licence.¹⁰

Galway City is located within the Lough Corrib (Galway City, Tuam, Loughrea) Water Resource Zone (WRZ)¹¹ and as identified by Uisce Éireann, has potential capacity available to meet targeted population growth by 2034¹², subject to a level of service improvement.¹³

The water supply for Galway City is supplied by Galway City Public Water Supply (PWS), located at Terryland, and supplemented by Tuam Regional Water Supply. The PWS treatment plant has a capacity of 55 mega litres per day.¹⁴

Under Section 58 of the Environmental Protection Agency Act 1992, the EPA is required to collect and verify monitoring results for all water supplies in Ireland covered by the European Communities (Drinking Water) Regulations, 2000. The EPA publishes their results in annual reports that are supported by Remedial Action Lists (RALs). The RAL identifies water supplies that are not in compliance with the Regulations mentioned above. The most recent EPA Remedial Action List (Q4 of 2025, published in 2026)¹⁵ does not include any supplies within the area to which the Variation relates.

Waste Management

The National Waste Management Plan for a Circular Economy (Regional Waste Management Planning Offices, 2024) sets out a framework for the prevention and management of waste in Ireland for the period 2024 to 2030. The City Development Plan to which the Variation relates seeks to influence sustainable consumption and prevent the generation of waste, improve the capture of materials to optimise circularity and enable compliance with policy and legislation.

⁷ <https://www.epa.ie/publications/compliance--enforcement/waste-water/priority-areas-list.php> (December 2025)

⁸ <https://www.water.ie/connections/developer-services/capacity-registers/wastewater-treatment-capacity-register/galway-city> (August 2025)

⁹ Population Equivalent (PE) is a measurement of the organic biodegradable load. A population equivalent of 1 (1 PE) means the organic biodegradable load having a five-day biochemical oxygen demand (BOD₅) of 60 g of oxygen per day; the load is calculated on the basis of the maximum average weekly load entering the treatment plant during the year, excluding unusual situations such as those due to heavy rain.

¹⁰ https://water.widen.net/content/91fsdmygr4/pdf/D0050-01_2024_AER

¹¹ A Water Resource Zone (WRZ) is an independent water supply system serving a region, city, town or village and is governed by topography or the extent of the water distribution network in an area. A WRZ may include multiple Water Treatment Plants and/or sources.

¹² Capacity constraints exist and additional analysis of Pre-connection Enquiries and Connection Applications will be undertaken as required by UÉ on an individual basis considering their specific load requirements. Improvement proposals will include but are not limited to leakage reduction and/or capital investment. These proposals will be required to maintain/improve levels of service as demand increases. These proposals will be developed & prioritised through the National Water Resources Plan and investment planning process.

¹³ <https://www.water.ie/connections/developer-services/capacity-registers/water-supply-capacity-register/galway-city>

¹⁴ Galway City Development Plan 2023-2029

¹⁵ Available at: <https://www.epa.ie/publications/compliance--enforcement/drinking-water/annual-drinking-water-reports/Q4-2025-RAL-Final-Print-Format.pdf>

Existing Problems

The provisions of the Variation will contribute towards protection of the environment with regard to impacts arising from material assets. The provision of infrastructure and supporting services for development, particularly water and wastewater services, is critical.

3.9 Cultural Heritage**Archaeological Heritage**

The Record of Monuments and Places is an inventory, put on a statutory basis by amendment to the National Monuments Act 1994, of sites and areas of archaeological significance, numbered and mapped. It is available from the National Monuments Service and at archaeology.ie.

Figure 3.4 shows the spatial distribution of Recorded Monuments within and beyond Galway City and their associated Zones of Notification. Given the medieval legacy of Galway, most of the city centre is designated as a Zone of Archaeological Notification. There are approximately 105 RMP sites located throughout the City, including two National Monuments in State Care: Merlinpark Castle (Ownership); and Roscam Early Medieval Ecclesiastical Site (Ownership).

Architectural Heritage

Records of Protected Structures are legislated for under Section 12 and Section 51 of the Planning and Development Act 2000 as amended. Protected structures are defined in the Planning and Development Act 2000 as amended as structures, or parts of structures that are of special interest from an architectural, historical, archaeological, artistic, cultural, scientific, social or technical point of view.

There are currently 619 Protected Structures within the City - Figure 3.5 shows the spatial distribution of these structures. Notable structures include: castles (Ballybrit, Ballindooly, Castlegar, Menlough and Barna Road); medieval walls; statues (Padraic O'Connaire, Liam Mellows); religious buildings (Galway Cathedral, Mercy Convent Complex, St Nicholas' Collegiate Church); various residential buildings; and graveyards.

An Architectural Conservation Area (ACA) is a place, area, group of structures or townscape, which is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or contributes to the appreciation of a Protected Structure. An ACA may or may not include Protected Structures. In an ACA, protection is placed on the external appearance of such areas or structures. There are eleven ACAs designated within Galway City (see also Figure 3.5): Dock Road; St. Nicholas Street; St Mary's Road; Uni Road; Presentation Road; St Mary's Terrace; Lower Dominick Street; The Long Walk; The Crescent/Sea Road; Eyre Square; and City Core.

Existing Problems

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

3.10 Landscape

Galway City is located on generally low-lying and relatively flat land. The River Corrib flows through the centre of the Variation area, from north to south and joins Galway Bay. Galway City's landscape is greatly influenced by the Galway Bay coastline, River Corrib, Lough Corrib, rivers and canals, with green spaces often surrounding these features. The core of the City is predominantly historic with urban and green spaces sprawling the surroundings. Agricultural lands are also present in the outskirts of the City, particularly to the north, east and west of the Variation area.

As identified in the existing Galway City Development Plan 2023-2029 there are views within the City's landscape, which require special protection due to their distinctive scenic amenity, aesthetic or cultural value or historic setting. Views of scenic amenity value and interest define the character of the City, engender a strong sense of place and significantly enhance local amenities. Important views in the City include panoramic views which allow expansive views over scenic landscape, over the cityscape and key landmark buildings and linear views, which are views towards a particular landscape, observed from a particular point. The Views of Special Amenity Value and Interest are listed below and mapped on Figure 4.18.

Panoramic Protected Views:

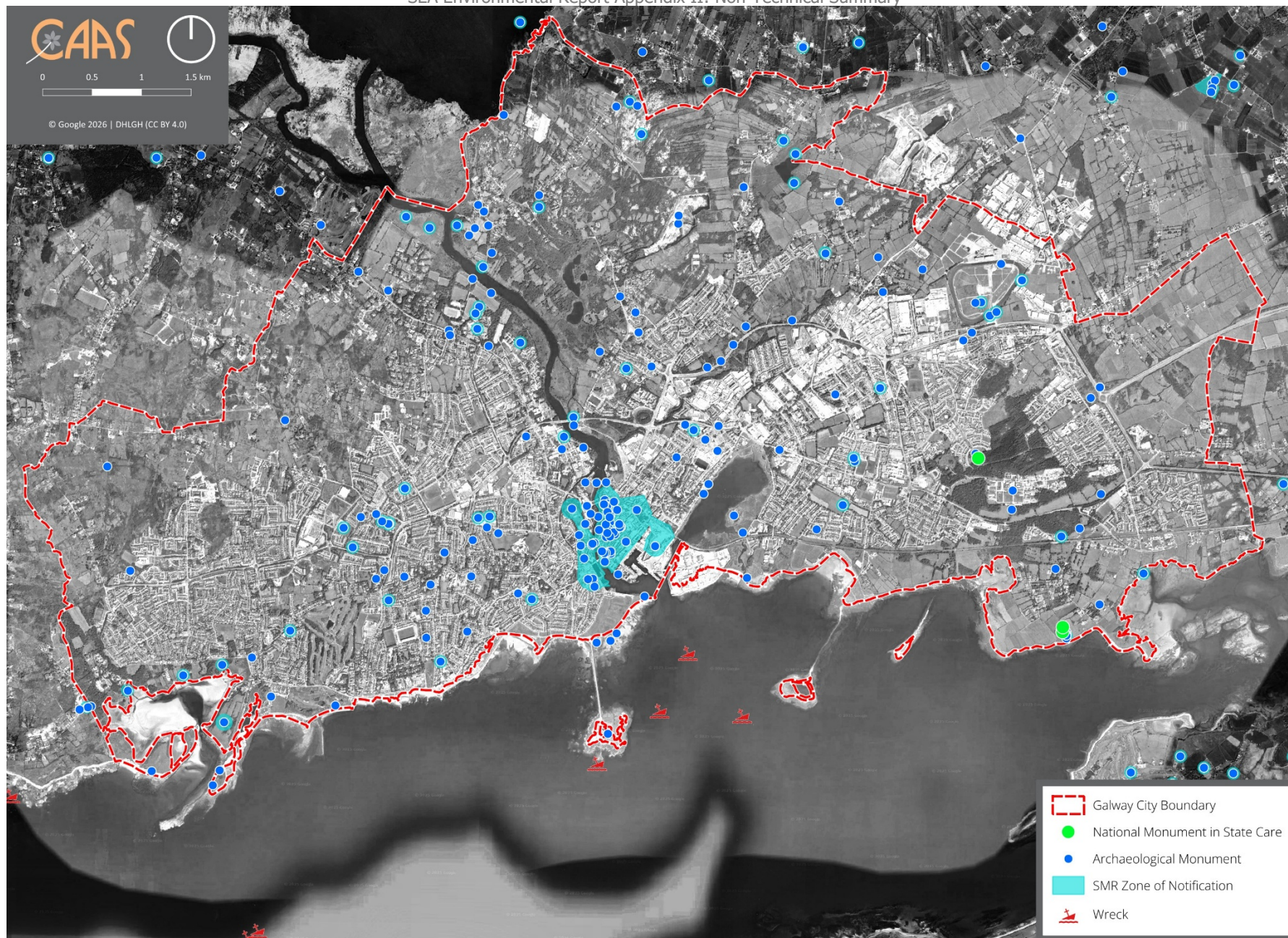
- Panoramic views of the city and the River Corrib from Circular Road;
- Views from Dyke Road and Coolagh Road encompassing the River Corrib and Coolagh fen;
- Seascape views of Lough Atalia from Lough Atalia Road, College Road, Dublin Road and Lakeshore Drive;
- Seascape views of Galway Bay from Grattan Road, Seapoint, the Salthill Promenade and the coast road to the western boundary of the golf course;
- Seascape views encompassing Lough Rusheen including section of Blakes Hill, sections of Knocknacarra Road, sections of Barna Road from Knocknacarra to city boundary and including the road to Silverstrand Beach;
- Panoramic views of the city, and the Terryland Valley from parts of the Castlegar-Ballindooley Road;
- Views encompassing Lough Corrib from parts of the Quarry Road and Monument Road;
- Seascape views of Galway Bay from the old Dublin Road to the city boundary; and
- Views towards the sea at Roscam.

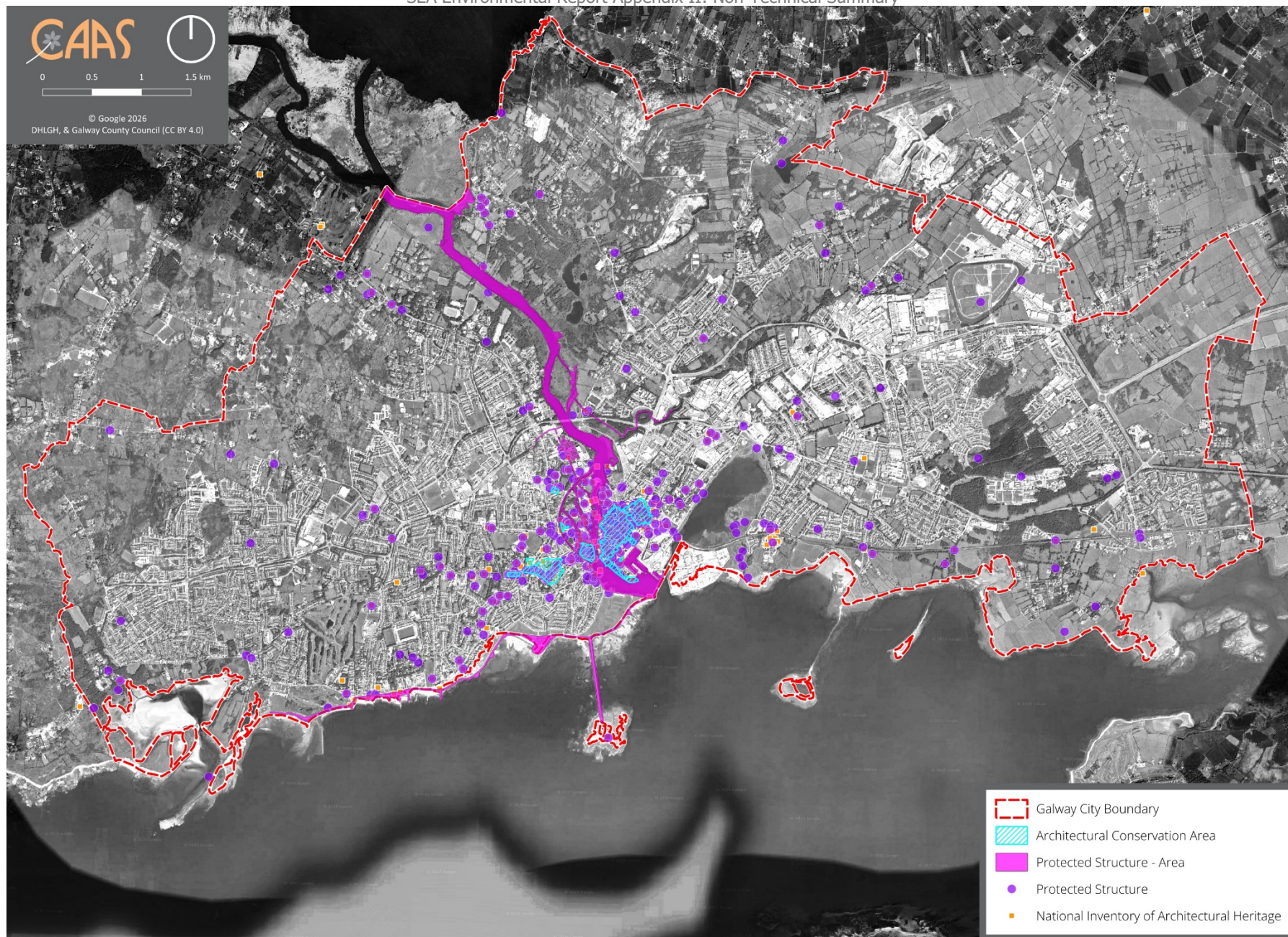
Linear Protected Views:

- Views from Galway-Moycullen Road (N59) of the River Corrib;
- Views from Waterside of the River Corrib;
- Seascape views of Galway Bay from Kingston Road;
- Seascape views of Galway Bay at Ballyloughane from south of the railway bridge;
- Views northwards encompassing the River Corrib and adjoining lands from Quincentenary Bridge;
- Views towards Galway Bay from Hawthorn Drive, Renmore;
- Views from Quincentenary Bridge Road southwards over Terryland Forest Park and River Corrib;
- Seascape views from Military Walk, Renmore;
- Views towards River Corrib from junction of St. Bridget's Place with St. Bridget's Terrace; and
- Views encompassing Ballindooley Lough from parts of the Headford Road.

Existing Problems

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

**Figure 3.4 Archaeological Heritage**

**Figure 3.5 Architectural Heritage**

CAAS for Galway City Council

3.11 Strategic Environmental Objectives

Strategic Environmental Objectives (SEOs) are methodological measures developed from policies that generally govern environmental protection objectives established at international, Community or Member State level e.g. the environmental protection objectives of various European Directives that have been transposed into Irish law and which are required to be implemented. The SEOs are set out under a range of topics (see Table 3.1) and are used as standards against which the provisions of the Variation and the alternatives are evaluated in order to help identify which provisions would be likely to result in significant environmental effects and where such effects would be likely to occur, if – in the case of adverse effects – unmitigated.

Table 3.1 Strategic Environmental Objectives

Environmental Component	Strategic Environmental Objectives
Biodiversity, Flora and Fauna	• Preserve, protect, maintain and where appropriate, restore the terrestrial, aquatic and soil biodiversity, of international, EU and nationally designated sites, protected species and habitats. • Ensure no adverse effects on the integrity of any European site, regarding its qualifying interests, associated conservation status, structure and function. • Maintain and where appropriate, enhance the biodiversity value of local designated and non-designated ecological and heritage areas, which function as stepping stones for migration, dispersal and genetic exchange of wild species. • Enhance biodiversity in line with the National Biodiversity Strategy and its targets. • To protect, maintain and conserve the City's natural capital.
Population and Human Health	• Provide high quality residential, community, working and recreational environments with access to sustainable transport options. • Promote economic growth to encourage retention of working age population and funding of sustainable development and environmental protection. • Ensure that existing population and planned growth is linked with the required infrastructure and the services. • Protect human health and well-being from environment-related pressures.
Soil (and Land)	• Protect soils against pollution, and prevent degradation of the soil resource • Promote the sustainable use of infill and brownfield sites over the use of greenfield • Safeguard areas of prime agricultural land and designated geological sites
Water	• Ensure that the status of water bodies is protected, maintained and improved in line with the requirements of the Water Framework Directive • Ensure water resources are sustainably managed to deliver proposed regional and City growth targets in the context of existing and projected water supply and wastewater capacity constraints ensuring the protection of receiving environments • Avoid inappropriate zoning and development in areas at risk of flooding and areas that are vulnerable to current and future erosion • Integrate appropriate flood risk management measures and sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals
Material Assets	• Make best use of existing infrastructure, promote the sustainable development of new infrastructure and protect existing assets, to meet the needs of the City and its population. • Promote the circular economy, reduce waste, and increase energy efficiencies. • Ensure there is adequate sewerage, water and drainage infrastructure in place to support new development • Reduce the energy demand from the transport sector and support moves to electrification of transport modes and active travel.
Air	• To avoid, prevent or reduce harmful effects on human health and the environment as a whole resulting from emissions to air from all sectors with particular reference to emissions from transport, residential heating, industry and agriculture. • Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency. • Promote continuing improvement in air quality. • Reduction of emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter which are responsible for acidification, eutrophication and ground-level ozone pollution. • Meet Air Quality Directive standards for the protection of human health — Air Quality Directive. • Significantly decrease noise pollution and move closer to WHO recommended levels.
Climatic Factors	• Minimise contribution to Climate Change by adopting mitigation and adaptation measures. • Integrate sustainable design solutions into the City's infrastructure (e.g. energy efficient buildings; green infrastructure). • Contribute towards the reduction of greenhouse gas emissions in line with national targets. • Encourage and promote development resilient to the effects of climate change. • Promote the use of renewable energy, energy efficient development and increased use of public transport and active travel.
Cultural Heritage	• Protect places, features, buildings and landscapes of cultural, archaeological and / or architectural heritage.
Landscape	• To implement the Development Plan's framework for identification, assessment, protection, management and planning of landscapes having regard to the European Landscape Convention.

Section 4 Alternatives

4.1 Introduction

The SEA Directive requires that reasonable alternatives (taking into account the objectives and the geographical scope of the plan or programme, or variation to these) are identified, described and evaluated for their likely significant effects on the environment. Summaries of the alternatives for the Variation and their assessment are provided below.

4.2 Limitations in Available Alternatives

The alternatives available for the Variation are significantly limited by the provisions of higher-level planning objectives, including those of Ministerial Guidelines, the Revised National Planning Framework, the Regional Spatial and Economic Strategy for the Northern and Western Region and the existing City Development Plan which set out various requirements for the content of the Variation. Notwithstanding these higher-level policy constraints and the limited scope of the Variation, alternatives to the land use zoning approach are identified and assessed.

4.3 Alternatives Description and Assessment Summary

Two alternatives (with associated components) for the approach to land use zoning were identified and assessed:

Land Use Zoning Approach Alternative 1: “More Compact Development, More Transport Orientated, More Infrastructure-Led”

Under this Alternative, Galway City would be facilitated in meeting the revised population targets, resulting in balanced, orderly development and implementation of the varied Core Strategy.

The approach under this alternative would allow for capacity/delivery with respect to water/wastewater and transport infrastructure to be integrated into the Plan as varied to the highest degree.

The infrastructure required to be in place to achieve the growth targets is largely already in place or planned under this alternative.

The development of the City would be more compact and sustainable under this scenario and would better support its longer-term viability. A higher number of residential units, in comparison with Alternative 2, would be expected to take place within the existing built-up footprint on brownfield, infill and under-utilised sites at appropriate densities, with a greater focus on use of consolidation and regeneration sites, with potential for wider regeneration benefits to central areas, including housing provision. Regeneration, reuse and redevelopment of more central and brownfield and infill lands and optimising the use of vacant, derelict, and underutilised sites and buildings would be more likely to be achieved. Giving a strong preference to lands that have both greater capacity to satisfy the principles of active travel and a more realistic opportunity of being developed over the lifetime of the Plan, would provide for the proper planning and sustainable development of the City as envisaged by the wider planning framework to a greater degree.

There would be greater potential for transport orientated development, including proximate development patterns linked by active travel infrastructure and public transport. Associated benefits and improvements to the public realm and appearance of the built environment, including liveability and quality of life improvements, would be more likely.

This Alternative would make the greatest contribution towards the protection and management of the environment by facilitating development of lands (including those within the existing built-up footprint of the City and suburbs) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-serviced lands elsewhere in the City and beyond. This Alternative would be considered the most effective out of both alternatives considered in the delivery of a sustainable, low carbon and climate resilient future for the City.

The approach under Alternative 1 would benefit the protection of various environmental components. Although potentially adverse effects associated with land use development would exist, they would be mitigated to a significant degree. Less residual environmental effects would result.

Under this alternative there would be:

- More optimum use of land and resources, with positive role for addressing climate change, such as potential for reduced carbon heavy travel patterns.
- Greater potential for modal shift to sustainable travel such as walking, cycling and public transport, with resultant benefits for climate resilience.
- Use of already serviced lands within the existing built-up footprint of the City and suburbs could lead to potential reduced costs for delivery of new supporting infrastructure.
- Creation of more liveable built environments, with greater accessibility to services and amenities for local communities.

Land Use Zoning Approach Alternative 2: "Less Compact Development, Less Transport Orientated, Less Infrastructure-Led"

Under this Alternative, Galway City would be facilitated in meeting the revised population targets, resulting in balanced, orderly development and implementation of the varied Core Strategy.

The approach under this alternative would not allow for capacity/delivery with respect to water/wastewater and transport infrastructure considerations to be integrated into the Plan as varied to the highest degree.

Additional significant infrastructure would be required to accommodate sporadic/outer fringe development, more than would be required for Alternative 1 'More Compact Development, More Transport Orientated, More Infrastructure-Led'.

The development of the City would be less compact and less sustainable under this scenario and would not optimally support its longer-term viability. A lower number of residential units, in comparison with Alternative 1, would be expected to take place within the existing built-up footprint on brownfield, infill and under-utilised sites at appropriate densities. Under this alternative there would be potential for greater proportion of housing to be delivered outside of the built-up areas, including on urban fringe and outer areas, creating unsustainable travel patterns with a greater reliance on the private car. Giving less of a preference to lands that have both greater capacity to satisfy the principles of active travel and a more realistic opportunity of being developed over the lifetime of the Plan, would provide for the proper planning and sustainable development of the City as envisaged by the wider planning framework to a lesser degree.

There would be greater potential for negative impacts on the vitality and viability of built-up areas, due to under use of infill sites. This alternative would be likely to result in increased outer fringe development, that would be more difficult to serve with active travel infrastructure and public transport.

This Alternative would make less of a contribution towards the protection and management of the environment by facilitating development of lands (including those within the existing built-up footprint of the City and suburbs) that have relatively low levels of environmental sensitivities and

are served (or can be more easily served) by infrastructure and services. Development of more sensitive, less well-served lands in the City would be provided for. This Alternative would be considered the least effective out of both Alternatives considered in the delivery of a sustainable, low carbon and climate resilient future for the City.

The approach under Alternative 2 would benefit the protection of various environmental components to a lesser degree. Although potentially adverse effects associated with land use development would exist, they would be mitigated to in many cases; however, more residual environmental effects would result.

Under this alternative there would be:

- An increase in car dependency and associated carbon heavy travel patterns, which would undermine efforts aimed at securing climate resilience.
- Increased peripheral pattern of residential development with potential for self-contained and disconnected built environments.
- Reduced potential for modal shift to sustainable travel options such as walking, cycling and public transport.
- Potential for increased costs associated with the delivery on new supporting infrastructure (roads, footpaths etc.) in more peripheral areas.
- Increased costs for the delivery of necessary supporting infrastructure for a higher level of urban fringe and outer areas.

The selected land use zoning approach for the Variation is Alternative 1. This compact development approach performed more favourably across multiple Strategic Environmental Objectives, including those relating to climate, human health, material assets and landscape. This approach would facilitate Galway City in meeting the revised population targets and would enable the rapid activation of available and housing delivery in the interests of providing housing for people.

4.4 Reasons for Choosing the Selected Alternatives in light of Other Reasonable Alternatives Considered

The selected alternative for the Variation that emerged from the planning/SEA process is indicated above.

This alternative has been integrated into the Variation as made having regard to both:

1. The environmental effects which were identified by the SEA and are detailed above; and
2. Planning – including social and economic – effects that also were considered.

Section 5 Summary of Effects arising from the Variation

Table 5.1 summarises the overall environmental effects arising from Variation provisions. The effects encompass all in-combination/cumulative effects arising from implementation of the Variation and associated documents. The Variation would contribute towards the proper planning and sustainable development of Galway City and the effects are consistent with those identified by the SEA for the Galway City Development Plan 2023-2029.

The potentially significant adverse environmental effects (if unmitigated) arising from implementation of the Variation are detailed as are residual effects, taking into account mitigation integrated into both the Variation and the Galway City Development Plan. Taking account of embedded mitigation within the existing Plan, mitigation within the Variation and the statutory environmental assessment requirements applying at project level, no significant adverse residual environmental effects are predicted.

Environmental impacts which occur will be determined by the nature and extent of multiple or individual projects and site-specific environmental factors. Environmental impacts which occur will be determined by the nature and extent of multiple or individual projects and site-specific environmental factors.

Appropriate Assessment (AA) Screening and Stage 2 AA have been undertaken alongside the Variation. The requirement for AA is provided under the EU Habitats Directive (Directive 1992/43/EEC). The conclusion of the AA is that the Variation will not affect the integrity of any European Site, alone or in combination with other plans or projects.¹⁶ The preparation of the Variation, SEA and AA have taken place concurrently and the findings of the AA have informed the SEA.

A Strategic Flood Risk Assessment (SFRA) has been undertaken as part of the preparation of the Variation. Requirements in relation to SFRA are provided under 'The Planning System and Flood Risk Management Guidelines for Planning Authorities' (Department of Environment and Office of Public Works, 2009) and associated Department of the Environment, Community and Local Government Circular PL2/2014. The SFRA has informed both the land use zoning and the written provisions of the Variation.

¹⁶ Except as provided for in Article 6(4) of the Habitats Directive, viz. There must be: (a) no alternative solution available, (b) imperative reasons of overriding public interest for the plan, or variation to the Plan, to proceed; and (c) adequate compensatory measures in place.

Table 5.1 Overall Findings –Effects arising from the Variation

Table 01: Overall Planning Effects arising from the Variation				
Environmental Component	Environmental Effects, in combination with the wider planning framework			SEO Codes
	Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP, the Northern and Western RSES, the Galway City Development Plan and adjacent Development Plans and lower-tier land use plans.			
	Significant Positive Effect, likely to occur	Potentially Significant Adverse Environmental Effects, if unmitigated	Likely Residual Adverse Non-Significant Effects	
Biodiversity and Flora and Fauna	- Contribution towards protection of ecology (including designated sites, ecological connectivity, habitats) by facilitating development of lands (including those within and adjacent to the city centre and the City's suburbs) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-served lands elsewhere in the City and beyond. - Contribution towards the maintenance of existing green infrastructure and associated ecosystem services, listed species, ecological connectivity and non-designated habitats. - Contribution towards protection and/or maintenance of biodiversity and flora and fauna by contributing towards the protection of natural capital including the environmental vectors of air, water and soil. Biodiversity and flora and fauna includes biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species (including birds and bats), listed/protected species, ecological connectivity and non-designated habitats (including terrestrial and aquatic habitats), and disturbance to biodiversity and flora and fauna – including terrestrial and aquatic biodiversity and flora and fauna. - Sustains existing sustainable rural management practices – and the communities who support them – to ensure the continuation of long-established managed landscapes and the flora and fauna that they contain.	Arising from both construction and operation of development and associated infrastructure: - Loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non-designated habitats; and disturbance to biodiversity and flora and fauna; - Habitat loss, fragmentation and deterioration, including patch size and edge effects; and - Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species such as birds and bats.	- Loss of an extent of non-protected habitats and species arising from the replacement of semi-natural land covers with artificial surfaces. - Losses or damage to ecology (these would be in compliance with relevant legislation).	BFF
Population and Human Health	- Promotion of economic growth to encourage retention of working age population and funding of sustainable development and environmental protection and management. - Contribution towards appropriate provision of infrastructure and services to existing population and planned growth by facilitating compact development of lands (including those within and adjacent to the city centre and the City's suburbs) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-served lands elsewhere in the City and beyond. - Contribution towards the protection of human health by facilitating development of lands (including those within and adjacent to the city centre and the City's suburbs) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-served lands elsewhere in the City and beyond. - Contributes towards protection of human health as a result of contributing towards the protection of natural capital including environmental vectors, such as air and water.	- Potential adverse effects arising from flood events. - Potential interactions with human health if effects arise from environmental vectors.	Potential interactions with residual effects on environmental vectors – please refer to residual adverse effects under “Soil”, “Water” and “Air and Climatic Factors” below.	PHH

SEA Environmental Report Appendix II: Non-Technical Summary

Environmental Component	Environmental Effects, in combination with the wider planning framework Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP, the Northern and Western RSES, the Galway City Development Plan and adjacent Development Plans and lower-tier land use plans.			SEO Codes
	Significant Positive Effect, likely to occur	Potentially Significant Adverse Environmental Effects, if unmitigated	Likely Residual Adverse Non-Significant Effects	
Soil	- Contribution towards the protection of soils and designated sites of geological heritage by facilitating development of lands (including those within and adjacent to the city centre and the City's suburbs) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-served lands elsewhere in the City and beyond. - Contribution towards the protection of the environment from contamination.	- Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of development on contaminated lands. - Potential for riverbank and coastal erosion.	- Loss of an extent of soil function arising from the replacement of semi-natural land covers with artificial surfaces. - Riverbank and coastal erosion will continue to occur naturally over time and is likely to be enhanced by climate change.	S
Water	- Contribution towards the protection of water by facilitating development of lands (including those within and adjacent to the city centre and the City's suburbs) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-served lands elsewhere in the City and beyond. - Contributions towards the protection of water resources including the status of surface and groundwaters and water-based designations. - Contribution towards flood risk management and appropriate drainage.	- Potential adverse effects upon the status of water bodies and entries to the WFD Register of Protected Areas (ecological and human value), arising from changes in quality, flow and/or morphology. - Increase in flood risk and associated effects associated with flood events.	- Any increased loadings as a result of development to comply with the River Basin Management Plan. - Flood related risks remain due to uncertainty with regard to extreme weather events – however such risks will be mitigated by measures that have been integrated into the Variation.	W
Material Assets	- Contribution towards appropriate provision of infrastructure and services to existing population and planned growth by facilitating compact development of lands (including those within and adjacent to the city centre and the City's suburbs) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-served lands elsewhere in the City and beyond. - Contribution towards compliance with national and regional water services and waste management policies. - Contribution towards increase in renewable energy use by facilitating renewable energy and electricity transmission infrastructure developments. - Contribution towards limits in increases in energy demand from the transport sector by facilitating sustainable compact growth. - Contribution towards reductions in average energy consumption per capita including promoting sustainable compact growth, sustainable mobility, sustainable design and energy efficiency.	- Failure to provide adequate and appropriate waste water treatment (water services infrastructure and capacity ensures the mitigation of potential conflicts). - Failure to adequately treat surface water run-off that is discharged to water bodies (water services infrastructure and capacity ensures the mitigation of potential conflicts). - Failure to comply with drinking water regulations and serve new development with adequate drinking water (water services infrastructure and capacity ensures the mitigation of potential conflicts). - Increases in waste levels. - Potential impacts upon public assets and infrastructure.	- Exceedance of capacity in critical infrastructure risks remain, including due to uncertainty with regard to climate – however, such risks will be mitigated by: measures, including those requiring the timely provision of critical infrastructure, and compliance with the Water Framework Directive and associated River Basin Management Plan. - Residual wastes to be disposed of in line with higher-level waste management policies. - Any impacts upon public assets and infrastructure to comply with statutory planning/consent-granting framework.	MA

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Environmental Component	Environmental Effects, in combination with the wider planning framework Effects include in-combination effects that are planned for through the wider planning framework including the NPF and associated NDP, the Northern and Western RSES, the Galway City Development Plan and adjacent Development Plans and lower-tier land use plans.			SEO Codes
	Significant Positive Effect, likely to occur	Potentially Significant Adverse Environmental Effects, if unmitigated	Likely Residual Adverse Non-Significant Effects	
Air and Climatic Factors	• Contribution towards climate mitigation and adaptation by facilitating compact development of lands (including those within and adjacent to the city centre and the City's suburbs) that are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop less well-served lands elsewhere in the City and beyond. • In combination with other plans, programmes etc., contribution towards the objectives of the wide policy framework relating to climate mitigation and adaptation, and associated contribution towards maintaining and improving air quality and managing noise levels, including through measures relating to: ○ Sustainable compact growth; ○ Sustainable mobility, including walking, cycling and public transport; ○ Drainage, flood risk management and resilience; and ○ Sustainable design, energy efficiency and green infrastructure.	• Potential conflict between development under the Plan as varied and aiming to reduce carbon emissions in line with local, national and European environmental objectives. • Potential conflicts between transport emissions, including those from cars, and air quality. • Potential conflicts between increased frequency of noise emissions and protection of sensitive receptors. • Potential conflicts with climate adaptation measures including those relating to flood risk management.	• An extent of travel related greenhouse gas and other emissions to air. This has been mitigated by provisions that have been integrated into the Variation, including those relating to sustainable compact growth and sustainable mobility. • Interactions between noise emissions and sensitive receptors. Various provisions have been integrated into the Variation to ensure that noise levels at sensitive receptors will be minimised.	AC
Cultural Heritage	• Contributes towards protection of cultural heritage elsewhere by facilitating development within settlements. • Contributes towards protection of cultural heritage within settlements, by facilitating brownfield development and regeneration.	• Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.	• Potential effects on known architectural and archaeological heritage and unknown archaeology however, these will occur in compliance with legislation.	CH
Landscape	• Contributes towards protection of wider landscape and landscape designations by facilitating development within settlements.	• Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.	• Landscapes will change overtime as a result of natural changes in vegetation cover combined with new developments that will occur in compliance with the Development Plan's landscape protection measures.	L

Section 6 Mitigation and Monitoring Measures

6.1 Mitigation

Mitigation measures are measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse impacts on the environment of implementing the Variation. Various environmental sensitivities and issues have been communicated to the Council through the SEA, Appropriate Assessment (AA) and Strategic Flood Risk Assessment (SFRA) processes. By integrating related recommendations into the existing Development Plan and the Variation, the Council has ensured that both the beneficial environmental effects of implementing the Plan as varied have been and will be maximised and that potential adverse effects have been and will be avoided, reduced or offset.

Mitigation was achieved through:

- Strategic work undertaken by the Council to ensure evidence-based planning;
- Considering alternatives for the Variation;
- The integration of individual provisions into the text of the existing, already in force, City Development Plan; and
- The integration of environmental considerations into the zoning provisions and text of the Variation.

6.2 Monitoring

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

Table 6.1 Indicators, Targets, Sources and Remedial Action

Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action ¹⁷
Biodiversity, Flora and Fauna	BFF	Condition of European sites	- Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions and to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species - Confirmation of compliance with Plan provisions relating to the protection of European Sites and sustaining resources	- DHLGH report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive (every 6 years)¹⁸ - DHLGH National Birds Directive Monitoring Report for the under Article 12 (every 6 years)¹⁹ - Internal review of local land use plans - Internal review of development management / grants of permission	Where condition of European sites is found to be deteriorating this will be investigated with the Regional Assembly and the DHLGH to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance.
		Number of spatial plans that have included ecosystem services content, mapping and policy to protect ecosystem services when their relevant plans are either revised or drafted	Require all local level land use plans to include ecosystem services and green/blue infrastructure provisions and to have regard to the required targets in relation to the conservation of European sites, other nature conservation sites, ecological networks, and protected species	Internal review of local land use plans	Review internal systems
		SEAs and AAs as relevant for new Council policies, plans, programmes etc.	Screen for and undertake SEA and AA as relevant for new Council policies, plans, programmes etc.	Internal review of new Council policies, plans, programmes etc. under the City Development Plan	Review internal systems
		Status of water bodies	Included under Water below	Included under Water below	Included under Water below
		Compliance of planning permissions with Plan measures providing for the protection of Biodiversity and flora and fauna – see City Development Plan Chapter 5 “Natural Heritage, Recreation and Amenity”	For planning permission to be only granted when applications demonstrate that they comply with all Plan measures providing for the protection of biodiversity and flora and fauna – see City Development Plan Chapter 5 “Natural Heritage, Recreation and Amenity”	Internal review of development management / grants of permission	Review internal systems
Population and Human Health	PHH	Implementation of Plan measures relating to the promotion of economic growth as provided for by City Development Plan Chapter 6 “Economy, Enterprise and Retail”	Progress in successfully implementing Plan measures relating to the promotion of economic growth as provided for by City Development Plan Chapter 6 “Economy, Enterprise and Retail”	Internal review of progress on implementing Plan objectives	- Review internal systems - Consultations with DCEE
		Number of spatial concentrations of health problems arising from environmental factors resulting from development permitted under the Plan	No spatial concentrations of health problems arising from environmental factors as a result of implementing the Plan	- Review of published information from the Health Service Executive and EPA - Internal consultations with the	Consultations with the Health Service Executive and EPA

¹⁷ Where remedial action is required, consultations with government agencies (e.g. DCEE, DT, EPA, HSE, NPWS, Regional Assembly, Uisce Éireann) may be undertaken in order to confirm causes of any identified changes in the environment and in order to develop appropriate responses.

¹⁸ Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on European sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

¹⁹ Including confirmation with development management that the following impacts have been considered and including use of monitoring data, where available: biodiversity/habitat loss; nitrogen deposition impacts on European sites; recreational disturbance resulting from implementation of tourism and recreation policies and objectives particularly in riparian areas; biodiversity enhancement; and disturbance /visitor pressure impacts of recreation, amenity and tourism development.

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Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action ¹⁷
				Council's Environment Department	
		Proportion of people reporting regular cycling / walking to school and work above previous CSO figures	- Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures - Progress in successfully implementing Plan measures relating to active travel	- CSO data - Internal review of progress on implementing Plan objectives	Where proportion of population shows increase in private car use above previous CSO figures, the Council will coordinate with the Regional Assembly, the DHLGH, DCEE and NTA to develop a tailored response.
		Number of spatial plans that include specific green infrastructure mapping	Require all local level land use plans to include specific green infrastructure mapping	Internal review of local land use plans	Review internal systems
Soil (and Land)	S	Proportion of population growth occurring on infill and brownfield lands compared to greenfield (also relevant to Material Assets)	- As per the revised NPF, to limit the rate of increase land that is sealed or artificialised per year and promote the reversal of this in suitable areas e.g., flood zones, high density areas - In compliance with the Revised NPF, deliver at 50% of all new homes that are targeted in Galway City and suburbs its existing built-up footprint and ensure compact and sequential patterns of growth - To map brownfield and infill land parcels	- EPA Geoportal - Compilation of greenfield and brownfield development for the DHLGH - Internal review of development management / grants of permission	Where the proportion of growth on infill and brownfield sites is not keeping pace with the targets set in the NPF and the RSES, the Council will liaise with the Regional Assembly to establish reasons and coordinate actions to address constraints to doing so.
		Instances where contaminated material generated from brownfield and infill must be disposed of	Dispose of contaminated material in compliance with EPA guidance and waste management requirements	Internal review of development management / grants of permission where contaminated material must be disposed of	Consultations with the EPA and Development Management
		Environmental assessments and AAs as relevant for applications for brownfield and infill development prior to planning permission	Screen for and undertake environmental assessments and AA as relevant for applications for brownfield and infill development prior to planning permission	Internal review of development management / grants of permission	Review internal systems
Water	W	Status of water bodies as reported by the EPA Water Monitoring Programme for the WFD	- Subject to exemptions provided for by Article 4 of the Water Framework Directive, not to cause deterioration in the status of any surface water or affect the ability of any surface water to achieve 'good status' - Implementation of the objectives of the River Basin Management Plan	EPA Monitoring Programme for WFD compliance ²⁰	- Where water bodies are failing to meet at least good status this will be investigated with the DHLGH Water Section, the EPA Catchment Unit, the Regional Assembly and, as relevant, Uisce Éireann to establish if the pressures are related to Plan actions / activities. A tailored response will be developed in consultation with these stakeholders in such a circumstance. - Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the WWTP to meet Emission Limit Values, the Council will consider whether it is necessary to coordinate a response with the Regional Assembly, EPA and Uisce Éireann to achieve the necessary capacity.
		Number of incompatible developments permitted within flood risk areas	Minimise developments granted permission on lands which pose - or are likely to pose in the future - a significant flood risk	Internal review of development management / grants of permission	Where planning applications are being permitted on flood zones, the Council will ensure that such grants are in compliance with the Flood Risk

²⁰ Including monitoring of water quality and nitrogen deposition due to bioenergy and agricultural projects where available

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Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action ¹⁷
					Management Guidelines and include appropriate flood risk mitigation and management measures.
Material Assets	MA	- Programmed delivery of Uisce Éireann infrastructure for all key growth towns in line with Uisce Éireann Investment Plan and prioritisation programme to ensure sustainable growth can be accommodated - Number of new developments granted permission which can be adequately and appropriately served with waste water treatment over the lifetime of the Plan	- All new developments granted permission to be connected to and adequately and appropriately served by waste water treatment over the lifetime of the Plan - Where septic tanks are proposed, for planning permission to be only granted when applications demonstrate that the outfall from the septic tank will not – in combination with other septic tanks – contribute towards any surface or ground water body not meeting the objective of good status under the Water Framework Directive - Facilitate, as appropriate, Uisce Éireann in developing water and wastewater infrastructure - See also targets relating to greenfield and brownfield development of land under Soil and broadband under Population and Human Health	Internal review of development management / grants of permission	Where planning applications are rejected due to insufficient capacity in the WWTP or failure of the WWTP to meet Emission Limit Values, the Council will consider whether it is necessary to coordinate a response with the Regional Assembly, EPA and Uisce Éireann to achieve the necessary capacity.
		Proportion of people reporting regular cycling / walking to school and work above previous CSO figures	- Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures - Progress in successfully implementing Plan measures relating to active travel	- CSO data - Internal review of progress on implementing Plan objectives	Where proportion of population shows increase in private car use above previous CSO figures, the Council will coordinate with the Regional Assembly, the DHLGH, DCEE and NTA to develop a tailored response.
Air	A	- Proportion of journeys made by private fossil fuel-based car compared to previous levels - NO₂ (Nitrogen Dioxide), PM₁₀ (particulate matter with diameter of 10 microns or less) and O₃ (Ozone) as part of Ambient Air Quality Monitoring	- Decrease in proportion of journeys made by car compared to previous levels - Improvement in Air Quality trends, particularly in relation to transport related emissions - Progress in successfully implementing Plan measures relating to sustainable mobility and travel	- CSO data - EPA Air Quality Monitoring - Internal review of progress on implementing Plan objectives	Where proportion of population shows increase in private car use above previous CSO figures, Council will coordinate with the Regional Assembly, DHLGH, DCEE and NTA to develop a tailored response. See also entry under Population and human health above
Climatic Factors	C	Implementation of Plan measures relating to climate reduction targets	For review of progress on implementing Plan objectives to demonstrate successful implementation of measures relating to climate reduction targets	Internal review of development management / grants of permission	Review internal systems
		A competitive, low-carbon, climate-resilient and environmentally sustainable economy	Contribute towards transition to a competitive, low-carbon, climate-resilient and environmentally sustainable economy by 2050	Confirmation of progress in implementing of Galway City Council's Climate Change Adaptation Strategy 2019-2024 and Climate Action Plan 2024-2029	Where targets are not achieved, the Council will liaise with the Regional Assembly and the Climate Action Regional Office to establish reasons and develop solutions.
		Share of renewable energy in transport	Contribute towards the National Energy and Climate Plan 2021-2030 sectoral target for transport (RES-T) of 14%, by 2030 (this may be increased following a provisional European agreement on 30 March 2023 for a binding overall RES target of at least	- EPA Greenhouse Gas Emissions reporting - Internal review of implementation of Plan provisions	

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Environmental Component	SEO Code	Indicators	Targets	Sources	Remedial Action ¹⁷
			42.5% by 2030)	relating to renewable energy in transport, including facilitating the development of electricity charging and transmission infrastructure	
		Greenhouse gas emissions	Contribute towards the target of aggregate reduction in carbon dioxide (CO₂) emissions of at least 51% (compared to 1990 levels) by 2030 (helping to set Ireland on a path to reach net-zero emissions by 2050)		
		Energy consumption, the uptake of renewable options and solid fuels for residential heating	To promote reduced energy consumption and support the uptake of renewable options and a move away from solid fuels for residential heating	- CSO data - Internal review of progress on implementing Plan objectives	Where trends toward carbon reduction are not recorded, the Council will liaise with the Regional Assembly and the Climate Action Regional Office to establish reasons and develop solutions.
		Proportion of journeys made by private fossil fuel-based car compared to previous levels	- Decrease in the proportion of journeys made by residents of the settlements using private fossil fuel-based car compared to previous levels - Progress in successfully implementing Plan measures relating to sustainable mobility and travel		
		Proportion of people reporting regular cycling / walking to school and work above previous CSO figures	- Increase in the proportion of people reporting regular cycling / walking to school and work above previous CSO figures - Progress in successfully implementing Plan measures relating to active travel		
Cultural Heritage	CH	Percentage of entries to the Record of Monuments and Places, and the context these entries within the surrounding landscape where relevant, protected from adverse effects resulting from development which is granted permission under the Plan	Protect entries to the Record of Monuments and Places, and the context of these entries within the surrounding landscape where relevant, from adverse effects resulting from development which is granted permission under the Plan	Internal review of development management / grants of permission	Where monitoring reveals visitor or development pressure is causing negative effects on designated archaeological or architectural heritage, the Council will work with Regional Assembly, Fáilte Ireland and the National Monuments Service and other stakeholders, as relevant, to address pressures through additional mitigation.
		Percentage of entries to the Record of Protected Structures and Architectural Conservation Areas and their context protected from significant adverse effects arising from new development granted permission under the Plan	Protect entries to the Record of Protected Structures and Architectural Conservation Areas and their context from significant adverse effects arising from new development granted permission under the Plan	Internal review of development management / grants of permission	
Landscape	L	Number of developments permitted that result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan	No developments permitted which result in avoidable adverse visual impacts on the landscape, especially with regard to landscape and amenity designations included in Land Use Plans, resulting from development which is granted permission under the Plan	Internal review of development management / grants of permission	Where monitoring reveals developments permitted which result in avoidable adverse visual impacts on the landscape, the Council will re-examine Plan provisions and the effectiveness of their implementation