

Kildare County Council

Maynooth and Environs Joint Local Area Plan 2025 - 2031

SEA Environmental Report

Reference: 1

1 | 14 June 2024

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Job number 278388-00

Ove Arup & Partners Ireland Limited 50 Ringsend Road Dublin 4 D04 T6X0 Ireland arup.com



Document Verification

Project title	Maynooth	and Environs	Joint Local	Area Plan	2025 -2031
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Document title SEA Environmental Report

 $\begin{array}{ll} \textbf{Job number} & 278388\text{-}00 \\ \end{array}$

Document ref 1
File reference 1

Revision	Date	Filename	SEA ER Mayno	oth + Environs JL	AP_Issue_Clea
Issue	14.06.24	Description	SEA ER Issue		
			Prepared by	Checked by	Approved by
		Name	Sarah Danzaria	Ailsa Doyle	Ailsa Doyle
		Signature		alsa Doyle	Aulsa Doyle
		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			
		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			

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Non-Technical Summary

Introduction

This Non-Technical Summary (NTS) has been prepared to support the Strategic Environmental Assessment (SEA) of the Joint Local Area Plan (LAP) for Maynooth and its Environs (referred to hereafter as 'the draft Joint LAP'). The draft Joint LAP was prepared by Kildare County Council (KCC) and Meath County Council (MCC) for the period of 2025-2031. This document has been developed in accordance with relevant EU and national legislation to summarise, in non-technical language, the Environmental Report (ER) for the SEA of the draft Joint LAP. It draws attention to the most important issues outlined in the SEA Environmental Report and describes the key outcomes. Further detail can be found in the Environmental Report.

The relevant planning legislation comprises the Planning and Development Act 2000, as amended. Key planning documents reviewed as part of the assessment included:

- Project Ireland 2040 National Planning Framework (NPF)
- Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region
- Kildare County Development Plan (KCDP) 2023-2029; and
- Meath County Development Plan (MCDP) 2021-2027 (as varied).

Cognisance was also given to a wide range of legislation, plans and programmes at international, national, regional, and local level for relevance to the draft Joint LAP.

Draft Maynooth and Environs Joint LAP 2025 – 2031

The draft Joint LAP 2025-2031 sets out an overall strategy for the proper planning and sustainable development of Maynooth and Environs in the context of the KCDP 2023–2029, the MCDP 2021-2027 (as varied) and the RSES 2019-2031 for the Eastern and Midland Regional Assembly.

The draft Joint LAP will provide the main public statement of planning policies and objectives for Maynooth and Environs for the plan duration (2025-2031). The policies and objectives are critical in determining the appropriate location and form of different types of development as the draft Joint LAP is the primary statutory land use policy framework against which planning applications are assessed. The draft Joint LAP will incorporate a framework for guiding the future development of transportation, housing, retail, heritage, employment, and social and community infrastructure in Maynooth¹ (KCC, MCC, 2022).

The objectives of the draft Joint LAP will also be used by KCC and MCC to guide their activities and to indicate priority areas for action and investment by the local authorities, such as focusing on attracting employment into the town or enhancing the town as a centre for education and tourism.

The draft Joint LAP will be a key document for setting out a vision for how Maynooth and Environs should develop over the years 2025-2031.

SEA Methodology

European Council Directive 2001/42/EC (the SEA Directive) provides guidance on the assessment of effects of certain plans and programmes. Article 1 identifies that the objective of the SEA Directive is 'to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans with a view to promoting sustainable development'.

It is a systematic, on-going process for evaluating, at the earliest possible stage, the environmental quality, and consequences of implementing certain plans and programmes on the environment.

¹ KCC, MCC (2022) draft Maynooth and Environs Joint Local Area Plan 2025-2031. Available at: Kildare County Council

The methodology for this SEA is based on legislative requirements and guidance from the Environmental Protection Agency (EPA) to ensure compliance with the SEA Directive and associated national legislation.

Current State of the Environment

The SEA considers the current environmental conditions, hereafter referred to as the baseline environment. This description of the baseline considers the local level nature of the draft Joint LAP and is cognisant of the pressures and interrelationships between environmental topics within the draft Joint LAP study area. Likely significant environmental effects of a transboundary nature, between the Republic of Ireland and Northern Ireland were also considered in this report.

The baseline considers the following environmental aspects:

- Population and Human Health
- Biodiversity
- Land and Soils
- Water Resources
- Air, Noise and Climate
- Archaeology, Architectural and Cultural Heritage
- Landscape and Visual; and
- Material Assets

The draft Plan is a Joint LAP and, as such, the general state of the environment in the local area of Maynooth, County Kildare and the Environs located at Moygaddy in County Meath within the northern part of the draft Joint LAP area , were considered in order to inform the draft Joint LAP, any updates to the same over its lifetime, as well as this assessment. In doing so, some recently published reports (but not limited to) the Air Quality in Ireland Report, Water Quality in 2022 report and Central Statistics Office (CSO) published data, were reviewed to determine a baseline environment, amongst a suite of other documentation, including but not limited to; the Heritage Council's County Kildare Hedgerow Survey Report, County Meath Biodiversity Plan 2015-2020, Geological Survey of Ireland's Geological Heritage of Kildare Report, County Meath Heritage Plan 2015-2020, the Maynooth Biodiversity Action Plan 2023-2028, the EPA's Water Quality in Ireland Report, the KCDP and the MCDP. Reports prepared to inform the Joint Plan, including the Maynooth and Environs Area Based Transport Assessment, the Habitats Report and Surface Water Management Strategy have also been considered when as regards current state of the environment when drafting the Joint Plan.

Population and Human Health

The 2022 population for the settlement of Maynooth was recorded as 17,259 people. According to 2022 Census data, the population of Maynooth Electoral Division (ED) was 18,729, representing a population growth of 2,731 since the 2016 Census (15,998). The CSO population statistics from 2016-2022 displayed an intercensal population change of 17.07% (CSO, 2022)². It is noted that this ED covers a large rural hinterland in County Kildare and not just the settlement of Maynooth. Maynooth is a large active town in north-east Kildare and is strategically located on the Dublin to Sligo railway line, M4 Motorway and the Royal Canal.

Maynooth is identified as Key Town in the Metropolitan area in the RSES. The RSES recognises the Maynooth Environs, which are located in County Meath, as a strategic location for economic development that will support the future development of the town and the delivery of the Maynooth Outer Orbital Route (MOOR), which is a key piece of infrastructure in the sustainable growth of the town.

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² CSO (2022) Population Statistics. Available at: Home - CSO - Central Statistics Office

The level of green space and access to the natural environment is extremely important for the populace health. The health and wellbeing of individuals is greatly affected by the communities in which they live and the nature of their physical environment. A key element of sustainable communities is access to space as environments which lack public gathering places can encourage sedentary living habits.

Open space provision can improve levels of exercise in a community which can impact on health and can improve social interaction and community activities which can contribute to reducing stress-related problems.

According to 2022 Census Data, 1.09% of the ED of Maynooth identified themselves as having Bad or Very Bad health. The number of individuals who stated that their health as either Bad or Very Bad in 2022 was 296. Census 2022 Data for Very Good Health in Maynooth have been recorded to include 11,058 individuals, which is a percentage of 59% of the total recorded population in Maynooth. The ED of Rodanstown, whereby a small area of this ED will make up the Maynooth Environs described in the draft Joint LAP, has identified 0.8% of themselves as having Bad or Very Bad health. The number of individuals who stated that their health either Bad or Very Bad in 2022 was 15. Census 2022 Data for Very Good Health in Rodanstown have been recorded to include 1,193 individuals, which is a percentage of 63.9% of the total recorded population in Rodanstown.

Biodiversity

The biodiversity of County Kildare and County Meath is protected by National and European legislation (The Wildlife Act (1976 and 2000) and the EU Habitats and Birds Directives) and is also protected by KCC through policies in the KCDP and MCC through policies of the MCDP. The town of Maynooth is home to rich biodiversity resources as the Lyreen River and Royal Canal flow through the town. Excellent ecological resources for wildlife and ecological connectivity to the wider landscape are also prominent. Maynooth also has a small wetland area at the Lyreen Angling Centre which although artificially constructed provides wetland habitat which is not common in the area (D., D'Arcy, Maynooth Tidy Towns Group, 2017)³. The dominant environments across Maynooth are improved and amenity grassland, intensive agriculture, and arable grassland, urban, built land, woodland and shrub and wetlands. For this reason, it is important to ensure that local biodiversity areas support connectivity within the network, are maintained, and given the opportunity to increase their distribution.

The Maynooth Environs included in the draft Joint LAP are located in County Meath on the northern periphery of the town . The lands within Maynooth Environs are largely undeveloped at present and comprise of approximately 141 hectares of land approximately 1.5km to the northeast of the town centre. The lands within the Maynooth Environs, to the west of the R157 are inclusive of 98 hectares that are currently in use as a stud farm. The existing buildings on these lands reflect this use and consist of a purposebuilt stud dating from the 1830s, and the lands to the east of the R157 include approximately 41 hectares and consist of a mixture of pasture, scrub, and woodland associated with Carton Demesne.

Maynooth is home to several rare, protected and/or threatened plants and animals. Protected plants are those that are legally protected under the Flora Protection Order 2022 (S.I. No. 235 of 2022) (e.g., Hairy St John'swort). Various animals are also afforded protection within the Wildlife Acts (e.g., all native mammals). Species listed on Annex II of the European Union Habitats Directive (e.g., Salmon, White-clawed Crayfish or Dragon fly) ⁴. Its urban environment particularly consists of old stone buildings and walls, which have been valuable features for bats, birds and invertebrates. Daubenton's bat, pipistrelle bats and Leisler's bats have also been previously recorded in Maynooth and it is likely that there are other bat species present.

The Royal Canal (Site Code: 002103) which runs through the draft Joint LAP study area is home to the legally protected Opposite-leaved Pondweed (Groenlandia densa) under the Flora Protection Order 1987 and Tolypella intricate, a stonewort protected under the Red Data Book as being vulnerable.

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³ D., D' Arcy, Maynooth Tidy Towns (2017) Maynooth Biodiversity Action Plan 2017-2021. Available from: KCC

⁴ Eastern and Midland Regional Assembly (2022) Regional Spatial and Economic Strategy 2019-2031 for the Eastern and Midland Region. Available at: Eastern and Midland Regional Assembly Final RSES - Eastern and Midland Regional Assembly (emra.ie)

Both of these species are present in the Dublin section of the canal. The main extent of the canal boundary is dominated by hedgerow, tall herbs, calcareous grassland, reed fringe, open water, scrub and woodland.

The Rye Water Valley/ Carton (Site Code: 001398) which also runs through the draft Joint LAP study area is located between Maynooth and Leixlip on the Rye Water (a tributary of the River Liffey) along the Carton Estate. The river was dammed at intervals creating a series of lakes through the demesne.

The river contains a thermal petrifying spring, which is a habitat listed on Annex 1 of the EU Habitats Directive⁵. The main importance of the site lies in the presence of several rare and threatened plant and animal species and of the rare thermal, mineral, petrifying spring habitat.

The White-clawed Crayfish is regarded as a keystone species. In Ireland, it is found in large rivers (such as the Rye Water Valley), small headwater tributaries and in lakes.

There are no SPAs within the draft Joint LAP study area but there are two proposed Natural Heritage Area's (pNHA) within the draft Joint LAP study area. The pNHAs include the Royal Canal pNHA and the Rye Water Valley pNHA, the Rye Water Valley pNHA has been designated as both a candidate Special Area of Conservation (cSAC) and pNHA. There are no other NHAs within 15km distance of Maynooth and Environs.

Invasive non-native plant and animal species are one of the greatest threats to biodiversity. Invasive alien species negatively impact biodiversity through competition, herbivory, predation, habitat alteration and introduction of parasites or pathogens and poses a risk to the genetic integrity of our native species. Terrestrial and aquatic habitats can be significantly negatively impacted, resulting in severe damage to conservation and economic interests, such as agriculture, fisheries, forestry, and various recreational activities. Threats to watercourses and wetlands in Maynooth include invasive species like Indian balsam and Japanese knotweed. Within the main channel of the Royal Canal an aquatic invasive species known as Canadian waterweed has also been recorded. Threats to woodland and shrub habitat in Maynooth include invasive species like the North American Grey Squirrel and woodland clearance. Furthermore, some plants with invasive tendencies have also been recorded in the Maynooth area, including bamboo, red osier dogwood which were identified near the bridge over the Lyreen River in the South of the campus⁶ (D., D'Arcy, Maynooth Tidy Towns Group, 2017) and Japanese knotweed (*Reynoutria japonica*) which were found within Carton Demesne woodlands⁷ (Maynooth and Environs Habitats Mapping Report 2024⁸).

Land and Soils

According to the report 'The Geological Heritage of Kildare' the predominant rock type in County Kildare is sedimentary rock, limestone of Carboniferous age in particular (GSI, 2005).

The soils underlying the study area are identified by the Geological Survey of Ireland as being predominantly Made Ground in the urban centre. Made ground consists of materials modified by people, including those associated with mineral exploitation and waste disposal. They include materials deposited as a result of human activities or geological material modified artificially so that their physical properties (structure, cohesion and compaction) have been drastically altered (N. Foulkes, 2006).

The central area of Maynooth is urban in nature, outside of this urban centre, to the south-east of Maynooth the area consists of the soil association 'fine loamy drift with limestones'. The Maynooth Environs also predominantly consist of underlying 'fine loamy drift with limestones'.

⁵ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora

⁶D., D' Arcy, Maynooth Tidy Towns (2017) Maynooth Biodiversity Action Plan 2017-2021. Available from: KCC

⁷ WS Atkins Ireland Limited (2024) Maynooth + Environs Habitat Mapping Report. Available from KCC.

⁸ WS Atkins Ireland Limited (2024) Kildare Habitat Mapping Maynooth and Environs Habitat Mapping Report. Available from KCC.

⁹ N. Foulkes (2006) The Heritage Council - COUNTY KILDARE HEDGEROW SURVEY REPORT. Available at: Microsoft Word - County Kildare Hedgerow Survey Report .doc (hedgelaying.ie)

North of Maynooth's urban centre the soil association is 'silty river alluvium' which can be identified along river routes¹⁰ (Teagasc, 2022). Other soils within the draft Joint LAP study area include Straffan and Elton.

There are no sites of Geological Heritage located within the draft Joint LAP study area, however, two sites of geological heritage are located in proximity to the draft Joint LAP study area, those of which include Louisa Bridge Springs and St. Patricks Well.

Water Resources

For the purpose of implementing the Water Framework Directive 2000/60/EC (WFD), Ireland has been divided into eight river basin districts or areas of land that are drained by a large river or number of rivers and the adjacent estuarine / coastal areas. County Kildare falls within the Eastern River Basin District (ERBD). Maynooth and Environs are located in the Eastern River Basin District (ERBD), in WFD Catchment 09 – Liffey and Dublin Bay¹¹ (EPA, 2022).

There are two water bodies within Catchment 09 that are located within the draft Joint LAP study area - the River Lyreen and the River Rye Water. The EPA monitor water quality of water bodies throughout Ireland, in accordance with the WFD Directive.

According to the EPA, the River Lyreen, as it flows through Maynooth, is classified as being of 'poor' water quality. The River Rye Water, as it flows through Maynooth, is classified as being of 'moderate' water quality. Both the Rye Water and Lyreen watercourses located in the draft Joint LAP have been classed by the EPA as 'At Risk'.

Runoff from urban areas includes a toxic cocktail of pollutants washed off the urban impermeable areas into receiving waterbodies. This polluting effect has been identified by the EPA as one of the primary sources of pollution from urban areas, alongside discharges from urban wastewater systems. There are no nutrient sensitive rivers located within the draft Joint LAP study area.

The Royal Canal, a proposed Natural Heritage Area (Site Code: 002103) is also located in the Maynooth and Environs LAP study area, it runs from Dublin (North) westwards serving Leixlip, Maynooth and Kilcock and continues to Mullingar and Longford. At present the Royal Canal Main Line has been marked as under 'Review' on the EPA website. There are no natural lake water bodies present in the draft Joint LAP study area.

The draft Joint LAP study area is underlain predominantly by a locally important aquifer which is moderately productive in local zones. There is also an unproductive aquifer corresponding to the band of calcareous shale and limestone bedrock within the draft Maynooth Joint LAP study area.

Groundwater in the western part of the LAP study area is moderately vulnerable. In the remaining eastern area groundwater is highly vulnerable with sections of extreme vulnerability. The WFD Groundwater Bodies Status in the vicinity of the draft Joint LAP study area is recorded to be of 'good' quality status from 2013-2018 EPA records (EPA, 2013).

The Office of Public Works (OPW) has recorded a number of past flooding events along the rivers and streams passing through the draft Maynooth and Environs LAP Boundary, the three rivers located throughout include: The River Rye Water, the River Lyreen and the Royal Canal. Predominantly, singular flooding events have occurred across these locations¹². KCC is part of the Eastern Catchment Flood Risk Assessment and Management (CFRAM) Study. The draft Joint LAP will take into consideration the CFRAMs programme during the lifetime of the plan. Flooding in Maynooth is predominantly fluvial in nature. An area specific SFRA will be carried out to guide the future development of Maynooth and Environs as part of the draft Joint LAP development process and will also inform the SEA.

¹⁰ Teagasc (2022) Soil Maps. Available at: SIS Map (teagasc.ie)

¹¹ EPA (2022) Water Maps. Available at: EPA Maps

¹² OPW (2022) Flood Maps. Available at: Flood Maps - Floodinfo.ie

Air, Noise and Climate

Maynooth and Environs are located in Air Quality Zone D, as defined with the Air Quality Standards Regulations, 2022 (S.I. No. 739 of 2022) to be Rural Ireland which is the remainder of the State excluding Zones A, B and C. All pollutants for Zone D are well within compliance with Air Quality Standards.

No information has been provided for Zone D in relation to Benzene in the latest EPA Air Quality in Ireland Report.

KCC prepared the third Noise Action Plan (2019-2023)¹³ for County Kildare in 2019. MCC also prepared a Noise Action Plan for County Meath in 2019.

This Noise Action Plans primarily consider the long-term environmental noise impact from road, rail, and air traffic noise sources, and sets out an approach to review noise impact levels near to the major sources assessed during the strategic noise mapping with a view to identifying locations where noise reduction is deemed necessary in the first instance. There are no major agglomerations or major airports subject to noise mapping or action planning in either Kildare or Meath.

The KCC Noise Action Plan addressed Maynooth as one of fifteen population centres that are potentially exposed to noise from "*Major Roads*" in the county.

There is a number of sections of major roadway that are located either within, or immediately adjacent to Maynooth and Environs which qualified for noise mapping and, as such were subject to consideration for action planning. This refers to all areas exposed to noise from the "Major Roads" above a level of Lden 55 dB(A) and Lnight 50 dB(A).

The existing climate for Maynooth and Environs corresponds with the general climatic conditions for the whole country which is dominated by the Atlantic Ocean and its air and oceanic currents. Consequently, the region does not suffer from extremes of temperature. According to Met Éireann, for the first time, average annual temperature is greater than 11°C (record length 124 years)¹⁴. Average annual rainfall varies between about 790 and 2,000mm.

The Status of Ireland's Climate 2020 report by the EPA, Met Éireann and the Marine Institute, laid out all the effects of global warming felt in Ireland. This report noted that rainfall levels in Ireland between 1989 and 2018 were 6% higher than they were in the 30-year period before that. The Status of Ireland Climate 2020 report also shows that sea levels around the coasts of Ireland are rising (EPA, 2020)¹⁵.

While the national scale of potential change is evident, translating the potential effects of climate change to a region is a process of inference on what will happen to Ireland at large being reduced to a regional scale.

The potential rise in global temperature might affect the intensity and frequency of storms in the North Atlantic. As a consequence of stormy weather there exists the potential for flash flooding and erosion which would affect a wide range of ecosystems and economic sectors.

Archaeology, Architectural and Cultural Heritage

KCC published the County Kildare Heritage Plan 2019-2025 in 2019. MCC also published the Meath Heritage Plan in 2019. The aim of the Kildare Heritage Plan is to "recognise by all, the value and opportunity of Kildare's unique heritage resource and to manage, conserve and protect it, in partnership, for present and future generations." The aim of the Meath Heritage Plan is to "increase awareness, understanding and appreciation of Meath's heritage and promote best practice in its management for enjoyment by all". Built heritage refers to all man-made features, buildings or structures in the environment. This includes a rich and varied archaeological and architectural heritage to be found throughout the countryside and within the historic towns and villages of the country.

¹³ KCC (2019) County Kildare Third Noise Action Plan 2019-2023. Available at: Final NAP Master Document 27.09.19.pdf (kildarecoco.ie)

¹⁴ Met Eireann, Provisional State of the Irish Climate Report 2023. Available at: https://www.met.ie/state-of-the-irish-climate-report-2023

¹⁵ EPA, Met Éireann and the Marine Institute (2020) The Status of Ireland's Climate 2020. Available at: Climate Change | Environmental Protection Agency (epa.ie)

A record of archaeological heritage is maintained on the 'Record of Monuments and Places' which was established under Section 12 of the National Monuments (Amendment) Act, 1994 (No. 17 of 1994). Structures, features, objects or sites listed in this Record are known as Recorded Monuments. The Record of Monuments and Places (RMP) comprises a list of recorded monuments and places and accompanying maps on which such monuments and places are shown for each county.

The National Monuments Service of the Department of Housing, Local Government and Heritage will advise on the protection applying to any particular monument or place under the National Monuments Acts by reason of it being entered in the Record of Monuments and Places and should be consulted if there is any doubt as to the status of the site. According to the database there are approximately 20 Recorded Monuments within the draft Joint LAP study area.

The Rye River and Royal Canal located within the draft Joint LAP study area have an abundance of underwater archaeological heritage that requires protection and merits promotion. Where flood relief measures may be proposed the local authorities should have regard to the Archaeological Guidelines for Flood Relief Schemes (Draft document, DHLGH 2022).

Maynooth has an abundance of structures of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. Such features are contained in the Record of Protected Structures (RPS).

According to the database, there are approximately 52 protected structures in Maynooth and Environs. Owners and occupiers of protected buildings are required to ensure that buildings do not become endangered through harm, decay or damage (National Inventory of Architectural Heritage, 2022)¹⁶.

The Planning and Development Act 2000 (as amended) places an obligation on local authorities to include an objective for the preservation of the character of Architectural Conservation Areas (ACAs). An ACA is a place, area, group of structures or townscape, which is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest, which contributes to the appreciation of a Protected Structure, and the preservation of whose character is an objective of the County Development Plan. There is one ACA in Maynooth, and it is located in Maynooth Town Centre. Appendix C of the Joint Plan is the Statement of Character for the Architectural Conservation Area.

The majority of vernacular buildings located within the Joint LAP study area are domestic dwellings. Examples of other structures that may fall into this category include shops, outbuildings, mills, limekilns, farmsteads, forges, gates and gate piers.

Landscape and Visual

The landscape of County Kildare comprises a central plain bounded to the east by the Kildare uplands, which lie at the foothills of the Wicklow and Dublin Mountains. The Curragh, the boglands of north-west Kildare and the fertile lowlands of the south all comprise part of the central plain. The plain lands are interrupted by two groups of isolated hills, the Chair of Kildare and the Newtown Hills. The location of these hills within the central plain has a considerable impact on the landscape of Kildare. Inland waters comprise the River Liffey, River Barrow, River Slate, River Boyne, Royal Canal, Grand Canal and Rye Water River that traverse the county, providing important landscape features.

The draft Maynooth and Environs Joint LAP study area is located in the north-eastern part of County Kildare, with its northern section located in County Meath. A Landscape Character Assessment (LCA) of the county was prepared as part of the Kildare CDP and Meath CDP. The LCAs focused on characterisation i.e., the discernment of the character of the landscape based on its land cover and landform, but also on its values, such as historical, cultural, religious and other understandings of the landscape. The purpose of these documents was to assist in the development of the landscape objectives for the respective County Development Plans.

¹⁶ National Inventory of Architectural Heritage (2022) Maynooth. Available at: https://www.buildingsofireland.ie/buildings-search/?query=&location_type=building&county=KD&town=Kildare&street=&group=&type=&date_from=&date_to=&search_page=1

The study area is located in a landscape character area 'Northern Lowlands', characterised by "generally flat terrain and open lands with regular (medium size) field patterns." This low-lying landscape nature and low vegetation allows for extensive visibility and long-distance views within the landscape. The landscape character area that the Maynooth Environs are located in the 'South East Lowlands' in County Meath, where the predominant landscape is rolling lowland¹⁷ (MCC, 2021).

Discontinuous urban fabric comprises residential areas around the edge of urban district centres, and certain urban districts in rural areas. Pastures are dense grass cover of floral composition, dominated by graminaceae which are not under a rotation system. They are mainly used for grazing but may be harvested mechanically.

The CORINE Land Cover (CLC) inventory is a Pan-European land-use and landcover mapping programme.

It supplies spatial data on the state of the European environmental landscape and how it is changing over time. As per the CLC, discontinuous urban fabric comprises residential areas around the edge of urban district centres, and certain urban districts in rural areas in the Maynooth Environs. Pastures are dense grass cover of floral composition, dominated by graminaceae which are not under a rotation system. They are mainly used for grazing but may be harvested mechanically.

Material Assets

Uisce Éireann is responsible for all aspects of public water services planning, delivery and operation and KCC, as an agent of Uisce Éireann continues to provide certain water services functions for County Kildare¹⁸ (KCC, 2022). Maynooth is supplied by the North-East Regional Water Supply Scheme with water from the Leixlip Water Treatment Plant.

Water from the waterworks at Leixlip is distributed to Leixlip, Celbridge, Maynooth, Straffan, Ardclough, Rathcoffey and surrounding areas via the Leixlip Regional Scheme. Uisce Éireann also delivers groundwater from wellfields at Monasterevin, Rathangan and Athy which is blended with Poulaphouca water prior to distribution. There are also a number of small public water supplies to small rural communities. Maynooth is currently served by the existing Ballygoran Reservoir, via the water treatment plant at Leixlip. Water supply to the Maynooth Environs area will be from the network based in County Kildare.

A Remedial Action List (RAL) of problematic drinking water supplies is released by the EPA on a quarterly basis. The Remedial Action list is a public record for the supplies known to be at risk and where the EPA is requiring Uisce Éireann to take corrective action. The EPA has instructed Uisce Éireann to submit an action programme for the improvement of each of these supplies and has initiated enforcement action where action programmes were not being prepared or were not prepared to the satisfaction of the EPA. This includes issuing legally binding Directions requiring specific work to be carried out. The Ballygoran Reservoir, via the water treatment plant at Leixlip drinking water supply which serves Maynooth was not included on the Remedial Action list for Q4 of 2023 (EPA, 2023)¹⁹.

Maynooth is served by the Leixlip Wastewater Treatment Plant which also serves the towns of Kilcock, Celbridge, Leixlip and Straffan. The upgrade of the Lower Liffey Valley Regional Sewerage Scheme at present, is in progress and will improve the network capacities in Maynooth. Upgrades to the existing wastewater network are required in the Greater Dublin Area to facilitate existing and future development in the area and to ensure a resilient wastewater network (Uisce Éireann, 2022)²⁰. Wastewater from the Maynooth Environs area will be discharged to the wastewater network in County Kildare.

County Meath is also well served with a wide range of waste facilities which will serve the Maynooth Environs, including:

Kildare County Council

¹⁷MCC (2021) Meath County Development Plan – Landscape Character Assessment. Available at: A.05 Landscape Character Assessment | Meath County Council Online Consultation Portal

¹⁸ KCC (2022) Kildare County Development Plan – Chapter 6. Available at: Ch 6 final.pdf (kildarecoco.ie)

¹⁹ EPA (2023) Remedial Action List. Available at: remedial action list epa - Search (bing.com)

²⁰ Irish Water (2022) Lower Liffey Valley Regional Sewerage Scheme – Leixlip Transfer Pipeline and Wastewater Network Upgrade. Available at: Lower Liffey Valley Regional Sewerage Scheme Network Upgrade | Our Projects | Irish Water

- Waste transfer stations.
- Waste to Energy facility, landfill
- A Construction and Demolition (C&D) waste facility; and
- A network of recycling facilities are supported by MCC, in particular Navan, Trim, Kells and Dunboyne are served by recycling centres. The remainder of County Meath is served by a network of bring banks which accept a broad diversity of materials (Brady Shipman Martin, 2019).

The Waste Facility Permit and the Certificate of Registration Database is a register for waste facility permits and certificates of registration issued by local authorities under the Waste Management (Facility Permit and Registration) Regulations, S.I. No. 821 of 2007, as amended.

The designation of Maynooth as being a Metropolitan Key Town reflects Maynooth's strategic location on the Dublin to Sligo railway line, the M4 motorway and Royal Canal, along with the presence of Maynooth University. Accordingly, the future development of Maynooth is not just important at a county level but also at a regional scale, in supporting the growth of the capital. As a Metropolitan Key Town, Maynooth has been identified as having the capacity and future growth potential to accommodate above average growth in the region.

Maynooth is approximately 24 km from Dublin. It is connected to Dublin by a commuter rail service, mainline railway, provincial and Dublin bus services. It is well connected to the road network by the M4 Motorway linking Dublin to the northwest²⁵.

The Transport Strategy for the Greater Dublin Area 2022-2042 provides for a second train station to be constructed to the west of Maynooth town, the extension of DART services will be facilitated and both stations in Maynooth are intended to be served by DART+ West once constructed in order to meet growing populations in the area⁵² (NTA, 2022). A Transport Strategy for Maynooth, i.e. the Maynooth and Environs Area Based Transport Assessment, has been prepared to inform the Draft Joint Plan.

County Kildare's current energy supply is provided from a number of sources including the ESB's Liffey and Poulaphouca hydroelectric stations and a natural gas pipeline from Cork to Dublin which passes through the east of the county. The existing gas network within the county has capacity for connections and local distribution network extensions.

Lastly, the county is served by a number of telecom providers, each using various forms of technology including fibre optic and wireless technology.

Transboundary Issues

No direct transboundary environmental effects are anticipated as a result of the implementation of the draft Joint LAP.

Consideration of Alternatives

Alternative development scenarios were considered in the preparation of the draft Joint LAP. The draft Joint LAP is based on the principles of sustainable development which means that development will be promoted in accordance with the appropriate international, national, regional and county guidelines.

The draft Joint LAP is positioned within an overall plan hierarchy under the NPF, the RSES for the Eastern and Midland Region and both the Kildare CDP and the Meath CDP, which pre-determine the scope of the strategic alternatives.

Under National Policy Objective 68 (NPO 68) of the NPF, the Eastern and Midlands Regional Assembly (EMRA) in consultation with the MASP Implementation Group, allocated an additional population growth target of 10,000 persons to Maynooth in County Kildare up to 2031. This is in addition to the population/housing allocation it receives under the core strategies under each respective CDP.

To test the impact of 10,000 additional people on the towns movement network, an Area Based Transport Assessment for the Maynooth and Environs area (MEABTA) was prepared to inform the draft Joint LAP.

The MEABTA concluded that notwithstanding the delivery of public transport investment projects (listed below) along with other improvements, the road network of the town would be unable to cope with the volume of traffic generated by 10,000 additional population as well as allocated core strategy growth. A revised growth scenario at 50% allocation (i.e. 5,000 population over the remaining period of the RSES to 2031) indicated that the transport infrastructure of the town would be more likely to have the capacity to accommodate this reduced level of growth over the lifetime of the draft Joint LAP.

Furthermore, the Core Strategy of the Kildare CDP 2023-2029 allocates 997 units to Maynooth for the period 2023-2029. The Core Strategy of the Meath CDP 2021-2027 allocates 1,000 population to the Maynooth Environs for the period 2021-2027.

It is recognised that alternatives must be realistic, reasonable, viable and implementable. In the context of creating alternatives, the following parameters were of note for Maynooth and Environs:

- Maynooth is a designated Key Town in the Dublin MASP
- Maynooth is a designated Decarbonising Zone through the KCC Local Authority Climate Action Plan 2024-2029
- At the last census (2022) the town had a population of 17,259 people
- The RSES identifies specific locations in Maynooth and Environs for regeneration, economic development, residential development and phasing/enabling infrastructure.
- Significant public transport projects are planned for Maynooth including DART+ West, a second train station for Maynooth and BusConnects;
- The population growth and housing target being brought forward in this Joint Plan is 3,670 residential units or 9,906 people. This figure derives from growth allocated by NPO 68/MASP allocation (at 50%), the Kildare County Core Strategy allocation and the Meath County Core Strategy Allocation (as adapted to 2031).
- To achieve a job ratio of 1, an additional 6,568 jobs are required during the lifetime of the draft Joint LAP.
- The Social Infrastructure Audit carried out to inform the draft Joint LAP indicates that additional schools, open spaces, sports facilities and childcare will be required to cater for the population growth.
- It is an objective of KCC to embed the 10-minute settlement principle in LAPs.
- There is an ACA within the draft Joint LAP study area, which includes much of the town centre and Carton Avenue
- The town is rich in both Green and Blue Infrastructure, and includes the Rye Water Valley / Carton SAC, the Royal Canal pNHA and Rye Water Valley pNHA; and
- Maynooth University and St Patrick's College are both significant amenity areas within the town.

Having regard to these specific overarching policy parameters and population targets, the following five scenarios were established by KCC, these alternatives are considered to be realistic, reasonable, viable and implementable²¹.

- Alternative Scenario 1: Concentric Growth
- Alternative Scenario 2: Northern Growth
- Alternative Scenario 3: Eastern Growth

Kildare County Council

²¹ Note: A southern growth scenario was not considered realistic, reasonable, viable or implementable by KCC given the significant distance of lands from the town centre and regional planning policy pertaining to new residential and employment growth.

- Alternative Scenario 4: Western Growth; and
- Alternative Scenario 5: Town centre consolidation, rail-based development to west, phased and connected development to east and north.

The preferred alternative for the draft Joint LAP from an environmental perspective is Scenario 5: Town centre consolidation, Rail-based development to west, phased and connected development to east and north.

Objectives, Targets, and Indicators

The SEA is designed to assess the potential environmental impact of the draft Joint LAP and its associated policies and objectives against the established baseline. The policies and objectives outlined in the draft Joint LAP are assessed against a range of established environmental objectives and targets.

Indicators recommended in this ER are utilised over the lifetime of the draft Joint LAP to quantify the level of impact that the policies and recommendations may have on the environment. This enables the measurement of whether KCC and MCC were successful in promoting environmental protection, sustainable development and the guiding of activities and indicating priority areas for action and investment by the each respective local authority. The Objectives, Indicators and Targets relating to the draft Joint LAP are set out in the SEA ER.

Assessment of likely Significant Effects

The policies and objectives in the draft Joint LAP were assessed with respect to the existing environmental baseline and the environmental objectives and targets.

As the objectives included in the draft Joint LAP have been designed to promote sustainability and to protect the environment, the majority of policies are expected to have positive impacts when assessed against the environmental objectives. A matrix was prepared to examine these potential impacts. A summary is provided below of the key environmental effects identified.

Mitigation Measures

This SEA Environmental Report has highlighted some potential negative environmental impacts that may arise from the implementation of the draft Joint LAP in relation to new objectives, zonings, and land use designations. A number of mitigation measures have been identified to prevent, reduce and as fully as possible offset any potential significant adverse impacts on the environment of implementing the draft Joint LAP.

It is envisaged that all planning applications for new developments in the draft Joint LAP study area will be environmentally assessed and specific mitigation proposed where appropriate.

Monitoring Measures

Article 10 of the SEA Directive requires that monitoring should be carried out in order to identify at an early stage any unforeseen adverse impacts associated with the implementation of the draft Joint LAP.

A monitoring programme was developed based on the indicators selected to track progress towards achieving strategic environmental objectives and reaching targets, enabling positive and negative impacts on the environment to be measured. As previously described, the environmental indicators have been developed to show changes that would be attributable to implementation of the draft Joint LAP.

The SEA carried out has ensured that any potential significant environmental impacts have been identified and given due consideration.

KCC and MCC, as the planning authorities, are responsible for collating existing relevant monitored data, the preparation of preliminary and final monitoring evaluation reports, the publication of these reports and, if necessary, the carrying out of corrective action.

1. Introduction

Kildare County Council (hereafter referred to as KCC) and Meath County Council (hereafter referred to as MCC) are currently preparing a Joint Local Area Plan (LAP) (referred to hereinafter as 'the draft Joint LAP') for Maynooth and Environs over the period 2025-2031. Arup has been appointed by KCC to undertake Strategic Environmental Assessment (SEA) of the draft Joint LAP to address both functional areas in Counties Kildare and Meath. The draft Joint LAP development process will be carried out in parallel with the SEA/Appropriate Assessment (AA) process and the outcomes will feed into the Plan. This draft Joint LAP will supersede the Maynooth LAP 2013-2019 and the written statement and accompanying objectives for the Maynooth Environs contained in the Meath County Development Plan 2021-2027 (as varied). The new draft Joint LAP will set out a vision for the future planning and sustainable development of Maynooth and Environs to 2031 and beyond.

The purpose of this document, as an SEA Environmental Report (referred to hereafter as 'SEA ER'), is to present the findings of the environmental assessment of the likely significant effects on the environment as a result of implementing the draft Joint LAP. A Scoping Report was prepared which provided information to allow consultation with defined statutory bodies on the scope and level of detail to be considered in the environmental assessment. The purpose of this SEA ER – which should be read in conjunction with the AA, Strategic Flood Risk Assessment (SFRA) and the draft Joint LAP – is to provide a clear understanding of the likely environmental consequences of decisions arising from the draft Joint LAP.

1.1 Background

KCC and MCC, as the competent authorities, are currently preparing the draft Joint LAP in the manner and timescale set out in Part II Section 20 of the Planning and Development Act 2000 (as amended). The policies and objectives contained in the draft Joint LAP must be consistent with the core strategy and objectives of the Kildare County Development Plan (CDP) 2023-2029 and the Meath CDP 2021-2027 (aside from those specifically relating to the Maynooth Environs which will be superseded by the draft Joint LAP once adopted), aligning with national (the National Planning Framework (NPF)) and regional (The Regional Spatial and Economic Strategy (RSES) 2019-2031 for the Eastern and Midland Regional Assembly) planning policy.

The draft Joint LAP will provide the main public statement of planning policies and objectives for Maynooth and its environs for the plan duration (2025-2031). The policies and objectives are critical in determining the appropriate location and form of different types of development as the draft Joint LAP is the primary statutory land use policy framework against which planning applications are assessed. The objectives of the draft Joint LAP are also used by KCC and MCC to guide their activities and to indicate priority areas for action and investment by the local authorities such as focusing on attracting employment into the town or enhancing the town as a centre for education and tourism.

In the full interpretation of all objectives for Maynooth and Environs, it is essential that both the Kildare CDP and Meath CDP and the draft Joint LAP are read in tandem. Where conflicting objectives arise between the CDP and the draft Joint LAP, the objectives of the relevant CDP shall take precedence. It should be noted that the general development control standards applicable to the draft Joint LAP study area are included in each planning authorities' respective CDP. The draft Joint LAP written statement shall take precedence over the maps contained in the draft Joint LAP should any discrepancy arise between them.

The policies and objectives contained in the draft Joint LAP must be consistent with the core strategy and objectives of the Kildare CDP 2023-2029 and Meath CDP 2021-2027, which within the hierarchy of plans and programmes in Ireland must also align with the RSES planning policy and with the overarching NPF.

1.2 SEA Process and Legislative Context

1.2.1 Legislative Background

Directive 2001/42/EC of the European Parliament and of the Council on the Assessment of the Effects of Certain Plans and Programmes on the Environment, (also known as the SEA Directive), was transposed into Irish Law by the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No. 435 of 2004) as amended by S.I. No 200 of 2011.

It provides a statutory basis for the making of the Planning and Development (SEA) Regulations 2004 (S.I. No. 436 of 2004) as amended by S.I. No. 201 of 2011. These Planning and Development Regulations, S.I. No. 436 of 2004 and S.I. No. 201 of 2011, amended articles and schedules to the Planning and Development Regulations, (S.I. 600 of 2001).

Under the Directive (2001/42/EC) SEA is required on plans and programmes which are likely to have significant effects on the environment, in the following ten sectors:

- 1. Agriculture
- 2. Forestry
- 3. Fisheries
- 4. Energy
- 5. Industry
- 6. Transport
- 7. Waste Management
- 8. Water Management
- 9. Telecommunications; and
- 10. Tourism, Town and Country Planning or Land-use.

1.2.2 SEA Process

The objective of the SEA Directive is 'to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of Plans ... with a view to promoting sustainable development' (Article 1 SEA Directive). It is a systematic, on-going process for evaluating, at the earliest possible stage, the environmental quality and consequences of implementing certain plans and programmes on the environment.

The SEA process is comprised of the following steps:

- Screening: decision on whether or not SEA of a plan or programme is required. This stage has been completed;
- Scoping: Consultation with the defined statutory bodies on the scope and level of detail to be considered in the assessment. This stage has been completed;
- Environmental Assessment: An assessment of the likely significant impacts on the environment as a result of the plan or programme. This is the current stage of the SEA process to which this report relates;
- Preparation of an ER (this report);
- Consultation on the plan or programme and associated ER;
- Evaluation of the submissions and observations made on the plan or programme and ER; and
- Issuance of an SEA Statement identifying how environmental considerations and consultation have been integrated into the final plan or programme.

SEA is intended to inform decision-making and needs to 'test' systematically the performance of the draft Joint LAP as a whole and its individual objectives and policies against SEA criteria.

It is noted that under Environmental Impact Assessment (EIA) and planning and development legislation, certain projects taking place within the draft Joint LAP study area arising during implementation of the draft Joint LAP may require an Environmental Impact Assessment, should it be so required.

1.2.3 SEA Guidance

The SEA methodology for the draft Joint LAP is based on legislative requirements and Department of Environment, Heritage and Local Government (DoEHLG) / Environmental Protection Agency (EPA) guidance - as listed below. The EPA's SEA Pack (Version 28/01/2022) was also used as a source of information during the scoping process along with published EPA SEA Scoping Guidance.

- Strategic Environmental Assessment: Guidelines for Regional Assemblies and Planning Authorities (DHLGH, 2022).
- Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland (EPA, 2013).
- Circular Letter PSSP 6/2011: Further Transposition of EU Directive 2001/42/EC on Strategic Environmental Assessment (SEA) (DECC, 2011).
- Circular Letter PL 9/2013: Article 8 (Decision Making) of EU Directives 2001/42/EC on Strategic Environmental Assessment (SEA) as amended (DECC, 2013).
- Implementation of SEA Directive (2001/42/EC): Assessment of the Effects of Certain Plans and Programmes on the Environment- Guidelines for Regional Authorities and Planning Authorities (Department of the Environment, Community and Local Government, 2004).
- Implementation of Directive 2001/42 on the Assessment of the Effects of Certain Plans and Programmes on the Environment (European Commission, ND).
- Directive 2001/42/EC on the assessment of Certain Plans and Programmes on the Environment (EC, 2001).
- SEA Process Checklist Consultation Draft (EPA, 2024).
- (Draft) SEA Resource Manual for Local and Regional Planning Authorities (EPA, 2013).
- Integrating Climatic Factors into Strategic Environmental Assessment in Ireland A Guidance Note (EPA, 2019).
- Synthesis Report on Developing A Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland (EPA, 2003).
- Good Practice Guidance on SEA Screening (EPA, 2021).
- GISEA Manual Improving the Evidence Base in SEA (EPA, 2017).
- Circular Letter PSSP 6/2011: Further Transposition of EU Directive 2001/42/EC on Strategic Environmental Assessment (SEA) (EC, 2011).
- Circular Letter PL 9/2013: Article 8 (Decision Making) of EU Directives 2001/42/EC on Strategic Environmental Assessment (SEA) as amended (EC, 2013).
- Ireland's Environment An Integrated Assessment 2020 (EPA, 2020).
- Good practice guidance on Cumulative Effects Assessment in SEA (EPA, 2020).
- Second Review of SEA Effectiveness in Ireland (EPA, 2020).
- Integrated Biodiversity Impact Assessment Streamlining AA, SEA and EIA Processes Practitioner's Manual (EPA, 2013); and

2. Draft Joint LAP 2025–2031

2.1 Introduction

The draft Joint LAP 2025-2031 is being prepared in accordance with the requirements and provisions of the Planning and Development Act 2000 (as amended). It sets out an overall strategy for the proper planning and sustainable development of Maynooth and its environs in the context of the Kildare CDP 2023–2029, the Meath CDP 2021-2027 and the RSES 2019-2031 for the Eastern and Midland Regional Assembly. It is also informed by Ministerial Guidelines issued pursuant to Section 28 of the Planning and Development Act 2000 (as amended) together with EU requirements regarding SEA and AA.

The draft Joint LAP will provide the main public statement of planning policies and objectives for Maynooth and Environs for the plan duration (2025-2031). The policies and objectives are critical in determining the appropriate location and form of different types of development as the draft Joint LAP is the primary statutory land use policy framework against which planning applications are assessed. This draft Joint LAP will set out an overarching land use strategy for the proper planning and sustainable development of Maynooth and Environs over the life of the draft Joint LAP to 2031.

The draft Joint LAP will incorporate a framework for guiding the future development of transportation, housing, retail, heritage, employment, and social and community infrastructure in Maynooth²².

The objectives of the draft Joint LAP are also used by KCC and MCC to guide their activities and to indicate priority areas for action and investment by the local authorities such as focusing on attracting employment into the town or enhancing Maynooth as a centre for education and tourism.

The draft Joint LAP will be a key document for setting out a vision for how Maynooth and Environs should develop over the years 2025-2031.

2.2 Background to the draft Joint LAP 2025–2031

The existing land-use plan for Maynooth (County Kildare) is the Maynooth LAP 2013-2019. In 2018, an amendment was incorporated into the Plan. Amendment No. 1 to the Maynooth LAP was given pursuant to Section 20(3) of the Planning and Development Act 2000 (as amended) so that KCC, being the planning authority for Maynooth, could adopt an Amendment to the Maynooth LAP 2013 to 2019²³ (KCC, 2018).

The existing land-use plan for the Maynooth Environs is the Meath CDP 2021-2027, as varied.

The new draft Maynooth and Environs Joint LAP will go on public display in June 2024. The new plan is to be adopted in early 2025. Under planning legislation the planning authority has to have regard to the draft Joint Plan when considering planning applications.

The new draft Joint LAP 2025-2031 will take into account all recommendations from the Office of the Planning Regulator (OPR), National Transport Authority (NTA) and Transport Infrastructure Ireland (TII) and other statutory agencies. The draft Joint LAP is being prepared in full compliance with the RSES for the Eastern and Midland Region.

An Area Based Transport Assessment, AA, Surface Water Management Strategy, Settlement Capacity Audit, Social Infrastructure Audit, Statement of Character, Habitat Mapping Exercise and SFRA have been undertaken to inform the draft Joint LAP 2025-2031.

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²² KCC, MCC (2022) Maynooth and Environs Joint Local Area Plan 2025-2031. Available at: Kildare County Council

²³ KCC (2018) Maynooth Local Area Plan 2013-2019 Incorporating Amendment No.1. Available at: <u>Maynooth LAP 2013-2019 incorporating Amendment No.1 - Kildare County Council (kildarecoco.ie)</u>

The draft Joint LAP will be a key document for setting out a vision for how Maynooth should develop over the years 2025-2031.

The policies and objectives contained in the draft Joint LAP must be consistent with the core strategy and objectives of the Kildare CDP 2023-2029 and the Meath CDP 2021-2027, whilst aligning with national (the NPF) and regional (RSES for the Eastern and Midland Region 2019-2031) planning policy. The draft Joint LAP will also include information on the likely significant effects on the environment of implementing the Plan.

The NPF was published on 16 February 2018 as part of Project Ireland 2040. The NPF sets out a course for planning and development in Ireland. The NPF was adopted on 29 May 2018 and was further supported by the publication of the Implementation Roadmap for the NPF ('Roadmap') which was published on 3 July 2018. This document confirmed that the NPF was adopted as a strategy to replace the National Spatial Strategy (2002-2020, NSS) and advised that the NPF is of direct relevance to the preparation of RESES and CDP.

The NPF is implemented at a regional level through the RSES, at county level through CDPs and at local level through LAPs.

The aim of the RSES is to strengthen the settlement structure of the region and to capitalise on the individual and collective strengths of the region's cities, towns and rural areas. It provides policy responses in the form of Regional Policy Objectives to ensure that people's needs, such as access to housing, jobs, ease of travel and overall well-being are met.

The RSES is underpinned by three key principles:

- Healthy placemaking
- Climate action; and
- Economic opportunity.

The RSES also provides for a Settlement hierarchy of the Key Towns, Self-Sustaining Growth Towns, Self-Sustaining Towns, Towns, Villages and Rural Areas, the settlement hierarchy in respect of Kildare County, from the RSES, Maynooth is listed as a Metropolitan Key Town (Eastern and Midland Regional Assembly, 2019)²⁴.

The draft Joint LAP provides more detailed planning policies for the Maynooth and Environs, where significant development and change is anticipated. The draft Joint LAP must be compatible with and underpin national and regional guidance documents and the core strategy and policies of the Kildare CDP and Meath CDP. The draft Joint LAP is valid for six years from the date it is adopted by the planning authorities.

2.3 Policies of the Local Area Plan

The draft Joint LAP is being prepared under the provisions of Section 18, 19 and 20 of the Planning and Development Act 2000, (as amended).

In accordance with the Planning and Development Act 2000, as amended, the draft Joint LAP 2025-2031 will include objectives relating to land use zoning and protection of the environment. It will also have regard to Ministerial Guidelines under the Planning and Development Act 2000 (as amended) and should accord with national planning legislation and relevant European legislation.

Thus, in accordance with the Planning and Development Act 2000 (as amended), the draft Joint LAP must be consistent with the objectives, Core Strategy and Settlement Strategy of the Kildare CDP 2023-2029 and the Meath CDP 2021-2027.

²⁴ Eastern and Midland Regional Assembly (2022) Regional Spatial and Economic Strategy 2019-2031 for the Eastern and Midland Region. Available at: <u>Eastern and Midland Regional Assembly Final RSES - Eastern and Midland Regional Assembly (emra.ie)</u>

In order to develop in a sustainable manner, Maynooth, as a Metropolitan Key Town, must accommodate the appropriate levels of residential, economic, recreational and community development in tandem with necessary improvements in physical infrastructure and public transport²⁴.

In accordance with the Planning and Development Act 2000, (as amended) the draft Joint LAP must also be consistent with the RSES for the Eastern and Midland Region.

Maynooth is located within the Dublin Metropolitan Area and is identified in the RSES as a 'Metropolitan Key Town' with the assets and capacity to grow in a sustainable manner while minimising impacts on the receiving environment. A 'Metropolitan Key Town' in the RSES is defined as 'large economically active service towns located within the Dublin Metropolitan Area, with high quality transport links and capacity for increased residential and employment densities at strategic transport nodes. These should be read in conjunction with the Dublin Metropolitan Area Spatial Plan (MASP), Chapter 5. The Key Metropolitan Towns of Swords, Maynooth and Bray are important in a regional and in a county context and they have the capacity and future growth potential to accommodate above average growth in the Region with the requisite investment in employment creation, services, amenities and sustainable transport. The details and prioritisation of this delivery is set out in the MASP, Chapter 5'24 (Eastern Midlands Regional Assembly, 2019).

Regional Policy Objectives related to Maynooth as outlined in the RSES are as follows²⁵:

RPO 4.35 of the RSES states as follows:

'A cross boundary Joint Local Area Plan (LAP) shall be prepared by Kildare County Council and Meath County Council to provide a co-ordinated planning framework for the Maynooth area. The Joint LAP shall identify a boundary for the plan area, strategic housing and employment development areas and infrastructure investment requirements and promote greater co-ordination and sequential delivery of serviced lands for development.'

RPO 4.33: 'Support the continued development of Maynooth, co-ordinated with the delivery of strategic infrastructure including pedestrian and cycle linkages within the town and to the Royal Canal Greenway, DART expansion and road linkages forming part of the Maynooth Outer Orbital Route in a manner which supports future development and population growth and builds on synergies with Maynooth University promoting a knowledge-based economy.'

RPO 4.34: 'Support Maynooth as a key town to act as an economic driver for north Kildare and provide for strategic employment at key locations to improve the economic base of the town and provide for an increased number of local jobs.'

RPO 4.36: 'To promote the consolidation of the town centre with a focus on the regeneration of underused buildings and strategic sites and the establishment of residential uses to encourage greater vibrancy outside of business hours and the enhancement of the public realm.'

The Dublin MASP as outlined in Chapter 5 of the RSES contains Regional Policy Objectives that relates to the Dublin Metropolitan Area²⁵. The Objectives as they relate to Maynooth are listed as follows:

Regional Policy Objective (RPO) 5.2 will 'support the delivery of key sustainable transport projects including Metrolink, DART and LUAS expansion programmes, BusConnects and the Greater Dublin Metropolitan Cycle Network and [will] ensure that future development maximises the efficiency and protects the strategic capacity of the metropolitan area transport network, existing and planned.'

Regional Policy Objective (RPO) 5.3: 'Future development in the Dublin Metropolitan Area shall be planned and designed in a manner that facilitates sustainable travel patterns, with a particular focus on increasing the share of active modes (walking and cycling) and public transport use and creating a safe attractive street environment for pedestrians and cyclists.'

RPO 5.4: 'Future development of strategic residential development areas within the Dublin Metropolitan area shall provide for higher densities and qualitative standards as set out in the 'Sustainable Residential

 $^{^{25}\,}Eastern\,Midlands\,Regional\,Assembly\,(2019)\,RSES\,Chapter\,5.\,Available\,at:\,\underline{EMRA_RSES_1.4.5web.pdf}$

Development in Urban Areas', 'Sustainable Urban Housing: Design Standards for New Apartments' Guidelines and 'Urban Development and Building Heights Guidelines for Planning Authorities.'

RPO 5.5: 'Future residential development supporting the right housing and tenure mix within the Dublin Metropolitan Area shall follow a clear sequential approach, with a primary focus on the consolidation of Dublin and suburbs, and the development of Key Metropolitan Towns, as set out in the Metropolitan Area Strategic Plan (MASP) and in line with the overall Settlement Strategy for the RSES. Identification of suitable residential development sites shall be supported by a quality site selection process that addresses environmental concerns.'

RPO 5.6: 'The development of future employment lands in the Dublin Metropolitan Area shall follow a sequential approach, with a focus on the re-intensification of employment lands within the M50 and at selected strategic development areas and provision of appropriate employment densities in tandem with the provision of high-quality public transport corridors.'

RPO 5.7: 'Co-ordinate across local authority boundaries to identify, manage, develop and protect regional Green Infrastructure, to enhance strategic connections and develop a Green Infrastructure policy in the Dublin Metropolitan Area.'

RPO 5.8: 'Support the promotion and development of greenway infrastructure and facilities in the Dublin metropolitan area and to support the expansion and connections between key strategic cycle routes and greenways as set out in the NTA Greater Dublin Area Cycle Network Plan.'

Finally, the draft Joint LAP is being prepared in full compliance with the NPF.

2.4 Extent of Plan Area

The extent of the draft Joint LAP study area is illustrated in Figure 2.1 and also provided in Figure A1 in Appendix A. The study area map may be subject to change during the preparation of the draft Joint LAP.

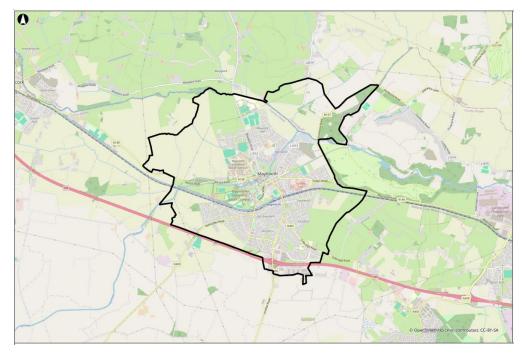


Figure 2.1 Maynooth Town and Environs Joint LAP Study Area

3. Relationship with Other Relevant Plans and Programmes

3.1 Introduction

According to Article 5(1) of Annex 1 of the SEA Directive, the environmental assessment must identify "the environmental protection objectives, established at International, European Union or national level, which are relevant to the plan or programme, or modification to the plan or programme, and the way those objectives and any environmental considerations have been taken into account during its preparation".

Ultimately, as outlined in the EPA's Good Practice Note on SEA this section should set out the draft Joint LAP in its wider planning context. It should explain what other plans and environmental objectives affect the draft Joint LAP, and what plans and projects are affected by the draft Joint LAP.

The wide range of plans, policies and programmes which are considered to be of relevance to the draft Joint LAP and are outlined in Section 3.3.

3.2 Plan Hierarchy

The hierarchy of the planning process within Ireland is summarised in the flow chart depicted in Figure 3.1. This flow chart (adapted from the DoECLG Development Plan Guidelines for Planning Authorities) (DoECLG, 2022)²⁶ indicates where the draft Joint LAP falls within that hierarchy.

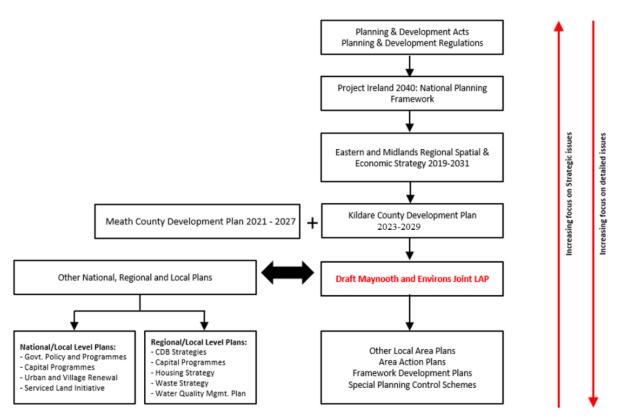


Figure 3.1 Hierarchy of the Planning Process in Ireland Source: 26

Kildare County Council

²⁶ DoECLG (2022) Development Plans - Guidelines for Planning Authorities. Available at: gov.ie - Development Plans - Guidelines for Planning Authorities (www.gov.ie)

3.3 Interaction with Other Relevant Plans and Programmes

As part of the SEA process the context of the draft Joint LAP must be established with regard to other plans and programmes that have been adopted at international, national, regional and local level. In particular, the interaction of the draft Joint LAP with the environmental protection objectives and standards included within these other plans and programmes be considered.

As previously stated, a wide range of legislation, plans and programmes are of relevance to the draft Joint LAP and are outlined in Table 3.1.

Table 3.1 Relevant Legislation, Plans and Programmes based on environmental aspect

	Legislation, Plans and Programmes based on environmental aspect.		
Level	Legislation, Plans and Programmes		
International/EU	Water Framework Directive and associated Directives		
Level	SEA Directive		
	Floods Directive		
	Groundwater Directive		
	Habitats Directive		
	Birds Directive		
	Freshwater Fish Directive		
	Shell-fish Directive		
	Drinking Water Directive		
	Bathing Water Directive		
	Environmental Impact Assessment Directive		
	Seveso Directive		
	Sewage Sludge Directive		
	Urban Waste-Water Treatment Directive		
	Waste Framework Directive		
	Nitrates Directive		
	Soils Directive		
	Air Quality Directives including Framework Directive		
	National Emissions Ceiling Directive (2016/2284)		
	Environmental Noise Directive		
	Climate Change Programme (ECCP II)		
	Industrial Emissions Directive		
	EU Reach Initiative		
	European Landscape Convention		
	UN Convention of Biological Diversity, 1992		
	Kyoto Protocol		
	Stockholm Convention		
	Valetta Convention		
	Ramsar Convention		
	OSPAR Convention		
	Convention of the Protection of the Architectural Heritage of Europe (Granada 1995)		
	Gothenburg Strategy		
	European Green Deal		
	ESPOO Convention and Kyiv (SEA) Protocol		
	EU Green Infrastructure Strategy		
	UNESCO (1972) The Convention for the Protection of the World Cultural and Natural Heritage		
	UN (1992) The Convention on Biological Diversity		
	Paris climate conference (COP21) 2015 (Paris Agreement)		
	EU 2030 Framework for Climate and Energy		
	Bern Convention (Convention on the Conservation of European Wildlife and Natural Habitats)		
	European 2020 Strategy for Growth		
	The European Green Deal (EGD) 2020		

Level	Legislation, Plans and Programmes
	EU (2030) Biodiversity Strategy
	EU (2018) Clean Air Policy Package
	National Air Pollution Control Programme
	8th Environmental Action Programme
	The EU Zero Pollution Action Plan
National Level	Building on Recovery: Infrastructure and Capital Investment 2016 - 2021
	Policy Position on Climate Action and Low-Carbon Development. National Policy Position Ireland (2014)
	Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities (2018)
	Quality Housing for Sustainable Communities. Best Practice Guidelines for Delivering Homes Sustaining Communities (2007)
	The Planning System and Flood Risk Management. Guidelines for Planning Authorities (2009)
	Guidelines for Planning Authorities on Sustainable Residential Development and Compact Growth (2024)
	Guidelines for Planning Authorities – Retail Planning (2012)
	Local Area Plans - Guidelines for Planning Authorities (2013)
	Guidelines for Planning Authorities – Spatial Planning and National Roads (2012)
	Town Centre First, A Policy Approach for Irish Towns (2022)
	Nature Based Solution to the Management of Rainwater and Surface Water Runoff in Urban Areas, Water Sensitive Urban Design, Best Practice Interim Guidance Document (2022)
	Our Sustainable Future – A Framework for Sustainable Development for Ireland (2012)
	Our Sustainable Future Progress Report (2015)
	National Biodiversity Action Plan 2023-2030
	Ireland's 4 th National Biodiversity Action Plan 2023-2030
	Appropriate Assessment of Plans and Projects in Ireland. Guidelines for Planning Authorities (revised 2010)
	Threat Response Plans
	Species Action Plans (SAPs)
	Architectural Heritage Protection - Guidelines for Planning Authorities (2004)
	Places for People, National Policy on Architecture (2022)
	National Landscape Strategy for Ireland 2015-2025
	Heritage Ireland 2030
	National Policy on Town Defences (2008)
	Climate Action and Low Carbon Development Act (2015), as amended
	River Basin Management Plan for Ireland 2018 - 2021
	Climate Action Plan 2024 (2024)
	National Development Plan 2021 - 2030 (2021)
	Ireland 2040 - Our Plan, the National Planning Framework and the National Development Plan (2021-2030)
	National Implementation Plan 2018 - 2020 (2018)
	The Energy White Paper 2015-2030
	Programme for Government – Our Share Future (2020)
	EPA Land Use Review - The Land Use Evidence Review
	Planning, Land Use and Transport Outlook 2040 [in preparation]
	Draft Clean Air Strategy for Ireland
	National Water Resources Plan (NWRP)
	Ireland's National Waste Policy 2020 – 2025
	National Adaptation Framework (NAF) 2018 and associated regional, local and sectoral adaptation plans
	National Energy and Climate Plan (NECP) 2021 – 2030
	National Air Pollution Control Programme (DCCAE, 2019)
	Irish Water's Water Services Strategic Plan 2015 and associated Proposed Capital Investment Plan (2014-2016)
	Our Rural Future: Rural Development Policy 2021-2025
	Realising our Rural Potential: The Action Plan for Rural Development

Level	Legislation, Plans and Programmes			
	National Peatlands Strategy (2015-2025)			
	Flood Risk Management Plans arising from National Catchment Flood Risk Assessment and Management Programme			
	Draft Renewable Electricity Development Framework (DCCAE) 2016			
	Tourism Policy Statement: People, Place and Policy – Growing Tourism to 2025			
	Fáilte Ireland Tourism plans, strategies			
	All Ireland Pollinator Plan 2021-2025			
	Prioritised Action Framework 2021-2027 (NPWS)			
	Management Plans for Natura 2000 sites			
	Framework and Principles for the Protection of the Archaeological Heritage (Government of Ireland, 1999)			
	Project Ireland 2040			
	Heritage Ireland 2030			
	Housing for All			
	Places for People - the National Policy on Architecture			
	Climate Change Sectoral Adaptation Plan for Built and Archaeological Heritage (National Adaptation Framework)			
Regional Level	Eastern and Midland Regional Spatial and Economic Strategy 2019-2031			
	Retail Strategy for the Greater Dublin Area 2008-2016			
	Greater Dublin Area Transport Strategy 2022-2042			
	River Basin Management Plan for Ireland 2018-2021			
	Draft River Basin Management Plan 2022-2027			
	Eastern-Midlands Region Waste Management Plan 2015-2021			
	Eastern Catchment Flood Risk Assessment Management (CFRAM) Study			
	Flood Risk Management Plans			
	Groundwater Protection Schemes			
	Regional Economic and Spatial Strategies			
	Integrated Implementation Plan 2019-2024			
Local Level	Kildare County Development Plan 2023-2029			
	Meath County Development Plan 2021-2027			
	County Kildare Heritage Plan 2019-2025			
	County Meath Heritage Plan 2015-2020			
	County Kildare Biodiversity Action Plan 2021-2025			
	Meath Biodiversity Action Plan 2015-2020			
	Maynooth Biodiversity Action Plan 2023-2028			
	Other Local Area Plans			

4. SEA Methodology

4.1 Introduction

This section highlights how the SEA has been undertaken for the draft Joint LAP. The SEA methodology is based on legislative requirements and relevant EPA guidance and will ensure compliance with the SEA Directive and associated legislation. The EPA's SEA Pack (Version 28/01/2022) was also used as a source of information during the scoping process.

The draft Joint LAP (KCC and MCC), the SEA ER and the AA (Arup) were prepared in an iterative manner whereby multiple revisions of each document were prepared, each informing subsequent iterations of the others. To facilitate this iterative approach, numerous discussions were held between KCC, MCC and Arup.

The key stages outlined in Figure 4.1 were identified and are discussed in the following sections.

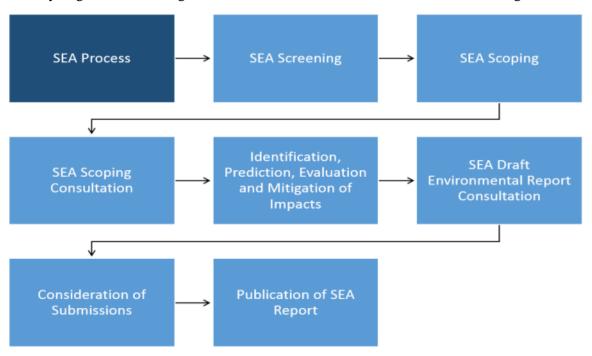


Figure 4.1 Key Stages of the SEA Process

4.2 Screening

Screening is the process for deciding whether a particular plan would warrant SEA at the earliest possible opportunity, it also facilitates the assessment findings so that they can be factored into the draft Joint LAP development process.

The screening determination for the draft Joint LAP was determined to be mandatory as the draft Joint LAP is of a type of Plan/Programme which falls within the remit of the SEA Directive/SEA Regulations.

Following the screening assessment, it was concluded that the draft Joint LAP falls within the requirements of the SEA Directive in that the population of the draft Joint LAP study area exceeds the threshold of 5,000 persons. In accordance with the EPA methodology, it was determined that SEA is required, in accordance with the SEA Directive and that the draft Joint LAP should be taken forward to Stage 2 - SEA Scoping, and subsequent environmental assessment.

4.3 Scoping

The main objective of the Scoping Stage is to identify the key environmental issues that may arise as a result of the draft Joint LAP, so they may be addressed appropriately in the ER. There are a number of tasks at this stage:

- Determine the key elements of the draft Joint LAP to be assessed.
- Determine the environmental issues to be assessed.
- Collect and report on relevant international, national and local plans, objectives and environmental standards that may influence or impact on the draft Joint LAP.
- Develop draft environmental objectives, indicators, and targets to allow the evaluation of impacts; and
- Identify reasonable alternative means of achieving the strategic goals of the draft Joint LAP.

A Scoping Report was prepared in September 2022 in relation to the draft Joint LAP, which provided information to allow consultation with defined statutory bodies on the scope and level of detail to be considered in the environmental assessment.

The draft Joint LAP was issued to the statutory consultees, and the consultees were given a period of four weeks to respond with any observations or submissions on the content of the SEA Scoping Report. Responses received are provided in Table 4.1.

Table 4.1 Scoping Reponses

Consultee/ Stakeholder	SEA Scoping Response	SEA Actions
Environmental Protection Agency (EPA)	As a priority, we focus our efforts on reviewing and commenting on key sector plans. For land use plans at county and local level, we provide a 'self-service approach' via the guidance document 'SEA of Local Authority Land Use Plans – EPA Recommendations and Resources'. This document is updated regularly and sets out our key recommendations for integrating environmental considerations into Local Authority land use Plans. We recommend that you take this guidance document into account in preparing the Plan and SEA.	This comment is welcomed. EPA Guidance documents have been referred to and incorporated throughout the entirety of the SEA process.
	In preparing the Plan, Kildare County Council should also ensure that the Plan aligns with key relevant higher-level plans and programmes and is consistent with the relevant objectives and policy commitments of the National Planning Framework and the Regional Spatial and Economic Strategy for the Eastern and Midlands Region.	This comment is welcomed. For the consideration of KCC and MCC.
	Available Guidance & Resources Our website contains various SEA resources and guidance, including: - SEA process guidance and checklists - Inventory of spatial datasets relevant to SEA - topic specific SEA guidance (including Good practice note on Cumulative Effects Assessment (EPA, 2020), Guidance on SEA Statements and Monitoring (EPA, 2020), Integrating climatic factors into SEA (EPA, 2019), Developing and Assessing Alternatives in SEA (EPA, 2015), and Integrated Biodiversity Impact Assessment (EPA, 2012)) You can access these guidance notes and other resources at: https://www.epa.ie/ourservices/monitoring-assessment/assessment/strategic-environmentalassessment/sea-topic-and-sector-specific-guidance-/	This comment is welcomed. EPA Guidance documents have been referred to and incorporated throughout the SEA process.
	Environmental Sensitivity Mapping (ESM) Webtool The ESM Webtool is a decision support tool to assist SEA and planning processes in Ireland. The tool brings together over 100 datasets and allows users to explore environmental considerations within a particular area and create plan-specific environmental sensitivity maps. These maps can help planners anticipate potential landuse conflicts and help identify suitable development locations, while also protecting the environment. The ESM Webtool is available at www.enviromap.ie.	This comment is welcomed. The ESM webtool has been reviewed however standalone ESM has been produced for the purposes of this assessment.
	EPA SEA GIS Search and Reporting Webtool Our SEA GIS Search and Reporting Webtool is publicly available through EPA Maps at https://gis.epa.ie/EPAMaps/SEA. It allows public authorities to produce an indicative report on key aspects of the environment in a specific geographic area. It is intended to assist public authorities in SEA screening and scoping exercises.	EPA tools have been reviewed, referred to and incorporated throughout the SEA process where appropriate.
	EPA WFD Application Our WFD Application provides a single point of access to water quality and catchment data from the national WFD monitoring programme. The Application is available via www.catchments.ie.	EPA tools have been reviewed, referred to and incorporated throughout the SEA process where appropriate.
	EPA AA GeoTool Our AA GeoTool application has been developed in partnership with the NPWS. It allows users to a select a location, specify a search area and gather available information for each European Site within the area. It is also available through EPA https://gis.epa.ie/EPAMaps/AAGeoTool.	EPA tools have been reviewed, referred to and incorporated throughout the SEA process where appropriate.

Consultee/ Stakeholder	SEA Scoping Response	SEA Actions
	State of the Environment Report – Ireland's Environment 2020 In preparing the Plan and SEA, the recommendations, key issues and challenges described within our State of the Environment Report Ireland's Environment – An Assessment 2020 (EPA, 2020) should be considered, as relevant and appropriate to the Plan. This should also be taken into account, in preparing the Plan and SEA.	This report has been referred to and incorporated throughout the SEA ER.
	Transition to a low carbon climate resilient economy and society You should ensure that the Plan aligns with national commitments on climate change mitigation and adaptation, as well as relevant sectoral, regional and local adaptation plans.	This comment is welcomed, Section 3 of this report outlines the draft Joint LAP's relationship with other relevant plans and programmes, including those at international/EU, national, regional and local level.
		According to Article 5(1) of Annex 1 of the SEA Directive, the environmental assessment must identify "the environmental protection objectives, established at international, European Union or national level, which are relevant to the plan or programme, or modification to the plan or programme, and the way those objectives and any environmental considerations have been taken into account during its preparation".
		Section 3 of this report sets out the draft Joint LAP in its wider planning context. It explains what other plans and environmental objectives affect the draft Joint LAP, and what plans and projects are affected by the draft Joint LAP, in line with the EPA's Good Practice Note on Strategic Environmental Assessment.
	Environmental Authorities Under the SEA Regulations, you should consult with: Environmental Protection Agency; Minister for Housing, Local Government and Heritage; Minister for Environment, Climate and Communications; and Minister for Agriculture, Food and the Marine. any adjoining planning authority whose area is contiguous to the area of a planning authority which prepared a draft Joint LAP, proposed variation or local area plan.	The relevant authorities have been consulted with as part of the SEA Scoping process, and the SEA ER will be put on public display alongside the draft Joint LAP.
Department of Housing, Local Government and Heritage (DHLGH)	Archaeology: The Department has recently made a submission on the pre-draft stage for the LAP (ref. FP2022-053). The following observations and recommendations align with those previously submitted and should be read in conjunction with that submission. The archaeological heritage is a unique, finite and non-renewable resource and measures to ensure its protection into the future can be strengthened through the preparation of a robust and appropriate SEA which strengthens and informs the implementation of the policies, objectives and development management standards in development plans. The Department has reviewed the SEA Scoping Report prepared by ARUP, dated 15th November 2022 and acknowledges the inclusion of Section 4.7 pertaining specifically to Archaeology, Architectural and Cultural Heritage. Please note that this Department is now the Department of Housing, Local Government and Heritage	This comment is welcomed. Arup was appointed by KCC to undertake Strategic Environmental Assessment (SEA) of the draft Joint LAP to address both functional areas in County Kildare and County Meath. The draft Joint LAP development process was carried out in parallel with the SEA/AA process and the outcomes fed into the Plan. SEA is a systematic, on-going process for evaluating, at the earliest possible stage, the environmental quality and consequences of implementing certain plans and programmes on the environment.

Consultee/ Stakeholder	SEA Scoping Response	SEA Actions
	and not the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs as stated in the report.	Section 5.7 of this report has since been updated with reference to the Department of Housing, Local Government and Heritage.
	SCOPING QUESTION NO. 1: Are there any other relevant international, national or regional plans or programmes that should be considered?	This comment is welcomed. Table 3.1 of the Scoping Report has been updated and included in this SEA ER, refer to Section 3
	The Department notes the inclusion of International/EU Level plans and programmes in Table 3.1 of the scoping report which are relevant to the protection of the archaeological heritage; namely, the Valletta Convention – 1992 European Convention on the Protection of the Archaeological Heritage – and The Convention for the Protection of the World Cultural and Natural Heritage, UNESCO (1972), both of which Ireland is a signatory to. The aims and requirements of these conventions were ratified by this state in 1997 and are represented in national policy as set out in Framework and Principles for the Protection of the Archaeological Heritage (Government of Ireland 1999). It is advised that this national policy document is referenced in the preparation of a Strategic Environmental Assessment for the Maynooth & Environs LAP. Additional guidance relevant to the protection and promotion of our archaeological, built and cultural heritage can be found in the following publications:	(Table 3.1).
	Project Ireland 2040	
	Climate Action Plan 2021	
	Heritage Ireland 2030	
	Town Centre First	
	Housing for All	
	Places for People - the National Policy on Architecture	
	Climate Change Sectoral Adaptation Plan for Built and Archaeological Heritage (National Adaptation Framework)	
	SCOPING QUESTION NO. 2: Are there any other significant environmental issues that should be considered?	Noted. Section 5.3.1.5 of this SEA ER has been updated to reference biodiversity being intrinsically linked to heritage.
	Biodiversity is intrinsically linked to heritage - both natural and man-made – and sensitively maintained archaeological monuments and sites are often excellent repositories and refuges for flora and fauna.	Noted. Section 5.2.1.2 of this SEA ER has been updated to reference health and wellbeing in relation to archaeological heritage sites.
	The Department considers that the interactions between Archaeological and Built Heritage and Biodiversity should be considered in the preparation of the SEA.	Noted. Section 5.7.1.2 of this SEA ER has been updated to reference to interactions between Archaeological and Built
	As stated in the SEA scoping report (Section 4.2.1.2), there is an established and important link between Human Health and the provision of adequate green spaces and access to the natural environment.	Heritage, Climate Change and Strategic Flood Risk. Noted. Section 5.7.1.2 of this SEA ER has been updated to reference to interactions between Archaeological and Built Heritage and Landscape and Visual sensitivity.
	The Department considers that these interactions should be considered in terms of the contribution that our archaeological heritage can make to health and wellbeing – both to individuals, communities and to the overall social, economic, cultural, and environmental benefit of the area. In addition to the green spaces that many of our recorded monuments	

Consultee/ Stakeholder	SEA Scoping Response	SEA Actions
	provide, nurturing an awareness and appreciation of such monuments within a community can contribute to enhancing a sense of identity, place and belonging and thus add to benefits such as reduced stress levels and increased social responsibility. Additionally, our archaeological heritage has a role and requires consideration in relation to action on climate change and strategic flood risk assessment. Of particular relevance in assessment of flood risk is the underwater archaeological heritage. The Rye River and Royal Canal have an abundance of underwater archaeological heritage that requires protection and merits promotion. The Department considers that the interactions between Archaeological and Built Heritage, Climate Change and Strategic Flood Risk Assessment should be considered in the preparation of the SEA. Where flood relief measures may be proposed the Councils should have regard to the Archaeological Guidelines for Flood Relief Schemes (Draft document, DHLGH 2022).	
	Protection and enhancement of our Archaeological and Built Heritage requires consideration of the setting and amenity of heritage sites, structures and monuments.	
	The Department considers that the interactions between Archaeological and Built Heritage and Landscape and Visual Sensitivity should be considered in the preparation of the SEA.	
	SCOPING QUESTION NO. 3: Are there any environmental issues that should be scoped out of the SEA at this stage? The Department considers that there are no environmental issues identified in the scoping report that should be scoped out at this stage.	This comment is welcomed.
	SCOPING QUESTION NO. 4: Do you have any comments regarding the draft SEA environmental objectives, targets or indicators? The Department acknowledges the Key Issues identified relating to protection of heritage assets in Maynooth and Environs as identified in Section 4.7.2 of the SEA scoping report. In addition to consideration of the issues and potential for interactions with previously unknown archaeological features/deposits due to continuing development, the SEA should also examine the potential benefits that appropriate enhancement and presentation of the heritage resource can bring to a community.	Noted. Section 6.2 of this SEA ER (Table 6.1) has been updated to make reference to appropriate enhancement and presentation of heritage resource, as appropriate.
	Appendix A - Figure A16: It is noted that Figure A16 indicates the recorded archaeological heritage of Maynooth and Environs and labels these sites/areas as 'National Monuments'. The Department wishes to draw attention to the difference between what are termed 'National Monuments' and 'Recorded Monuments'. At present, an archaeological monument is protected in one of four ways:	Section 5.7.1.1 has been updated in this SEA ER to make reference to the difference between 'National Monuments' and 'Recorded Monuments', as appropriate.
	It is recorded in the Record of Monuments and Places (RMP). (RMP)	
	 It is registered in the Register of Historic Monuments (RHM). It is a national monument subject to a preservation order (or temporary preservation order). 	
	It is a national monument in the ownership or guardianship of the Minister for Housing, Local Government and Heritage or a Local Authority. Different levels of protection apply to a	

Consultee/ Stakeholder	SEA Scoping Response	SEA Actions
	monument depending on which of the four categories it falls under. Anyone proposing to carry out work at or in relation or in proximity to a monument should be aware of the following:	
	Protection which applies to Monuments on the Record of Monuments and Places (RMP) and Register of Historic Monuments (RHM) The Record of Monuments and Places (RMP) is the most widely applying provision of the National Monuments Acts. It comprises a list of recorded monuments and places and accompanying maps on which such monuments and places are shown for each county. It can be consulted in county libraries and main local authority offices and an electronic copy may be accessed at: https://archaeology.ie/publications-forms-legislation/record-of-monuments-and-places. The Department will advise on the protection applying to any particular monument or place under the National Monuments Acts by reason of it being entered in the Record of Monuments and Places and should be consulted if there is any doubt as to the status of the site. Examination of information available at our Archaeological Survey Database can be of assistance in checking whether a graveyard/monument is likely to be subject to legal protection under the National Monuments Acts but is not conclusive. Accordingly, it is the printed lists and maps as referred to above which must be relied on. If you are in any doubt regarding the existence of a monument on your property or the level of protection which applies to the monument please contact the National Monuments Service of this Department. When the owner or occupier of a property, or any other person proposes to carry out, or to cause, or to permit the carrying out of any work at or in relation to a Recorded Monument or a Registered Monument they are required to give notice in writing to the Minister 2 months before commencing that work. This is to allow the Department time to consider the proposed works and how best to proceed to further the protection of the monument. The majority of recorded archaeological monuments in Maynooth and Environs fall within this category and the term 'Record of Monuments and Places' is generally abbreviated to 'RMP' with each monument assigned a unique identifying num	
	archaeological heritage as the Strategic Environmental Assessment is progressed.	
	Nature Conservation: The scoping report sets out the scope of the SEA Environmental Report and provides information to allow for consultation with defined statutory bodies on the scope and level of detail to be considered in the assessment. The scoping stage also allows input from the	Both the DHLGH submission on the SEA Scoping Report and the LAP Issues Paper have been reviewed. All comments included in this submission and the LAP Issues Paper submission are welcomed.

Consultee/ Stakeholder	SEA Scoping Response	SEA Actions
	environmental authorities on the Appropriate Assessment (AA) process. The following observations are made by the Department in its role as a statutory authority with overarching responsibility for nature conservation and the nature directives (i.e. the Bird Directive (2009/147/EC) and Habitats Directive (92/43/EEC)). The observations are not exhaustive but are intended to assist the Planning Authorities in meeting their obligations in relation to nature conservation, European sites, biodiversity and environmental protection in the process of conducting a Strategic Environmental Assessment of the LAP. The Department has previously made a submission in relation to the LAP Issues Paper. Comments in that submission are not repeated here but should be reviewed by the SEA team as they are of relevance to the SEA. Similarly, the comments below should be communicated to the plan-making team.	The SEA ER have been updated as appropriate. Also, for the attention of KCC and MCC.
	Matters related to Appropriate Assessment (AA):	Noted. The SEA ER have been updated as appropriate.
	The Department welcomes the coming together of Kildare and Meath County Councils to prepare the LAP. The LAP will provide an opportunity for the Planning Authorities to work together to support the achievement of the Rye Water Valley/Carton Special Area of Conservation's (SAC) (Site Code: 001398) conservation objectives1. Site specific conservation objectives have been prepared for this site and must be referred to. The Department welcomes the draft objective 'To achieve the conservation objectives of European Sites (SACs and SPAs) and other sites of nature conservation'. A suitable baseline must be established from which this objective can be measured. The SEA scoping report states that all designated sites within 15km of the plan area will be assessed in detail in the SEA and AA process. However, Departmental Guidance on AA advises that Natura 2000 sites that are more than 15km from the plan area should be included depending on the likely impacts of the plan, and the sensitivities of the ecological receptors, bearing in mind the precautionary principle. In the case of sites with water dependent habitats or species, and a plan that could affect water quality or quantity, for example, it may be necessary to consider the full extent of the upstream and/or downstream catchment.	Guidance from NPWS and the OPR has been utilised in relation to the AA process. The application of the ZoI has been applied using the SPR methodology opposed to the application of a 15km radius. Objectives of the draft Plan are assessed under this methodology and in adherence with the precautionary principle.
	Matters related to Strategic Environmental Assessment:	Noted. Section 9 of this SEA ER includes a Mitigation and
	General Comments SEA is a stepped process that involves collating baseline data, setting strategic environmental objectives, as well as the monitoring of the effects of the LAP on the environment. This final step is essential to the process and should underpin subsequent LAPs. Monitoring is a learning process that identifies issues and impacts. It follows, that the results of monitoring from the current LAP should inform the scoping for SEA of the proposed LAP. Without effective monitoring and follow up, each new plan operates from a shifted reference baseline for biodiversity and environment and as a result it is more likely that issues will perpetuate beyond each plan. The Department recommends that the description and assessment of the baseline environment incorporates the SEA monitoring from the current LAP. Looking to the LAP for 2024-2030,	Monitoring section for the draft Joint LAP. The Monitoring Section of this SEA ER includes a detailed monitoring table. Comments in this submission have been taken into consideration and incorporated, as appropriate. The draft Joint LAP, the SEA ER and the AA were prepared in an iterative manner whereby multiple revisions of each document were prepared, each informing subsequent iterations of the others. To facilitate this iterative approach, numerous discussions were held between KCC, MCC and Arup.
	incorporates the SEA monitoring from the current LAP. Looking to the LAP for 2024-2030, the SEA should establish definitive measurable indicators for environmental and particularly Biodiversity impacts. A key driver of Biodiversity loss is habitat loss and the SEA process is particularly important for assessing the cumulative impact and wider trends of habitat loss that arise from sub-threshold Environmental Impact Assessment (EIA) projects and indirect effects of the LAP. Consequently, monitoring should be embedded into the plan and given clear	The SEA and AA process align however, are separate independent processes that serve to ensure compliance with separate legislative requirements.

Consultee/ Stakeholder	SEA Scoping Response	SEA Actions
	quantifiable targets. Specifically, the SEA should establish effective and implementable monitoring of habitat loss, e.g. quantify and monitor the area of hedgerow, woodland, seminatural grassland, peat based and/or heath habitat loss within the lifetime of the LAP. Such quantifiable data can be gained from stipulations within the LAP requiring all new development applications to quantify and state the predicted habitat or biodiversity loss associated with the project. Furthermore, all losses and gains of important biodiversity features should be quantified with regard to development over the lifetime of the plan and the SEA process should report on them at the beginning of the next draft Joint LAP. The Department recommends that mitigation measures should be fully integrated into the LAP itself and the final LAP should fully reflect the findings of SEA and AA because they are integrated processes that mutually complement each other. Additionally, it is important to align the SEA and AA. However, they are separate independent processes that serve to ensure compliance with separate legislative requirements, and cross referencing in these documents is to be avoided.	
	Specific Comments: Loss of Woodland The Department welcomes the commitment to undertaking a Habitat Mapping Exercise to inform the Draft Maynooth and Environs Joint LAP 2025-2031. The Department considers that particular attention should be paid to the wooded area to the north-east of the plan area which lies adjacent to the Rye Water/Carton SAC. Woodland cover is shown here on the historic six inch map of the area and it is likely of significant age and biodiversity value. This area is partly zoned for Technology/Manufacturing within the current LAP. The SEA must assess the impacts of removal of this woodland and its associated protected species (breeding birds, bat species, badger, pygmy shrew, hedgehog and red deer as well as rare and protected plant species). Indirect disturbance impacts on biodiversity such as lighting, noise and habitat fragmentation must also be assessed. Surface water The Department welcomes the commitment to preparing a Strategic Flood Risk Assessment. In urban areas, where natural infiltration is reduced, rainfall runoff can be 400% greater in volume than in rural areas and prone to extreme flows in severe rainfall events. Furthermore, the runoff from urban areas includes a toxic cocktail of pollutants washed off the urban impermeable areas into receiving waterbodies. Run-off from car parks is of particular concern. This polluting effect has been identified by the Environmental Protection Agency (EPA) as one of the primary sources of pollution from urban areas, alongside discharges from urban wastewater systems. As outlined in the SEA Scoping Report, according to the EPA, the River Lyreen, as it flows through Maynooth, is classified as being of 'poor' water quality. The Rye Water, as it flows through Maynooth, is classified as being of 'poor' water quality. The Rye Water, as it flows through Maynooth, is classified as being of 'moderate' water quality. Both the Rye Water and Lyreen watercourses located in the LAP have been classed by the EPA as 'At Risk'. Nature-based Sustainable	Loss of Woodland: These comments are welcomed. Section 5.3.1.3 of this SEA ER has been updated to reflect these comments. Surface water: These comments are welcomed. Section 5.5.1.1 of this SEA ER has been updated to reflect these comments, as appropriate. Errata: Section 5.3.1.2 has been updated in this SEA ER to refer to the Flora (Protection) Order 2022 (S.I. No. 235 of 2022). Any text included in the SEA Scoping Report that stated the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs has since been updated.

Consultee/ Stakeholder	SEA Scoping Response	SEA Actions
	Areas, Water Sensitive Urban Design (2021)' 3, the implementation of nature-based solutions at the scale of the settlement results in a co-ordinated "whole of settlement" approach to the implementation of nature-based solutions and is preferable to the implementation of solutions at site or development level. One of the key messages of this guidance document is that rainfall, including extreme rainfall, will occur at various times and within various areas of the urban plan area and this needs to be planned for. The Department advises that a Rainwater Management Plan and Strategic SUDS measures are considered as part of the Surface Water Study.	
	Errata SEA Scoping Report Page 23: The Flora (Protection) Order 2022 (S.I. No. 235 of 2022) came into effect on 16th May 2022. The current list of plant species protected by Section 21 of the Wildlife Act, 19764 is set out in the Flora (Protection) Order, 20225, which replaces orders made in 1980, 1987, 1999 and 2015. SEA Scoping Report Page 23: The National Parks and Wildlife Service is part of the Department of Housing, Local Government and Heritage and not the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs	

4.4 Baseline Data

Gathering relevant information relating to the state of the environment for a plan area is an integral part of the SEA process. The SEA Directive requires that certain information relating to the relevant environmental baseline is presented in order to help test the performance of the plan's implementation, as well as helping establish how the environment would change if the draft Joint LAP were not to implemented. Baseline information has been collected from readily available sources, including the 2020 EPA State of the Environment Report. A Geographical Information System (GIS) was used to graphically present relevant information. The baseline information is reported in Section 5 of this report.

4.5 Consideration of Alternatives

The SEA Directive requires that reasonable alternatives be assessed in order to demonstrate how the preferred strategy performs against other forms of action. Alternatives must be developed, described and assessed within the SEA process, with the results presented in the ER. Section 7 of this report identifies, describes and evaluates different scenarios for the draft Joint LAP, taking into account national planning policy, economic development policy, and the Strategic Environmental Objectives (SEOs) identified in Section 6.

4.6 SEA Sensitivity Mapping

The SEA Directive requires that reasonable alternatives be assessed in order to demonstrate how the preferred strategy performs against other forms of action. Alternatives must be developed, described and assessed within the SEA process, with the results presented in the ER. Section 7 of this report identifies, describes and evaluates different scenarios for the draft Joint LAP, taking into account national planning policy, economic development policy, and the SEOs identified in Section 6.

4.7 Environmental Assessment of the draft Joint LAP

The environmental assessment process ran in parallel to the development and preparation of the draft Joint LAP. The environmental assessment process was undertaken in accordance with best practice SEA principles and guidance. This included desk reviews of all of the available Geospatial Information System (GIS) data, specialist investigation into the likely effects associated with the draft Joint LAP and recommendations for suitable mitigation measures along with monitoring.

4.8 SEA Statement

On adoption of the draft Joint LAP, the SEA Statement will be made public and will include information on how environmental considerations were integrated into the draft Joint LAP.

It will highlight the following:

- Main changes to the draft Joint LAP which resulted from the SEA process.
- How the SEA ER and consultations were taken into account.
- Summary of the key issues raised in consultations and in the SEA ER indicating what action was taken in response.
- The reasons for choosing the draft Joint LAP in the light of the other alternatives, identifying the other alternatives considered, commenting on their potential effects and explaining why the draft Joint LAP was selected.

4.9 Consultations

Further to the SEA Scoping consultation outlined in Section 4.3, this SEA ER will be issued to the relevant statutory stakeholders for comment. The responses received will be addressed in the finalisation of the SEA ER. An outline of the responses received will be included in the SEA Statement.

4.10 Technical Difficulties Encountered

No major technical difficulties were encountered during the preparation of this SEA ER.

5. Current State of the Environment

5.1 Introduction

An assessment of the current state of the environment and key environmental issues and opportunities for the study area relevant to the draft Joint LAP was conducted within the Maynooth and Environs Joint LAP 2025-2031 SEA Scoping Report. This SEA ER includes a full description of the current state of the environment within the draft Joint LAP study area. GIS is used extensively to provide regional information.

Where data gaps are found for particular aspects of the environment, the significance of these data gaps will be evaluated and clearly stated. It will also be stated whether these gaps can be addressed during the SEA process.

The baseline environment will be assessed under the following headings:

- Population and Human Health
- Biodiversity
- Land and Soil
- Water
- Air, Noise and Climate
- Archaeological, Architectural and Cultural Heritage
- Landscape and Visual; and
- Material Assets.

In accordance with S.I. 436 of 2004 (as amended) consideration will be given to whether the environmental effects, both positive and negative, of the draft Joint LAP are likely to be significant.

5.2 Population and Human Health

5.2.1 Population Baseline

For the purpose of this baseline description, it should be noted that the Maynooth Electoral Division (ED) Census data was used. According to 2022 Census data, the population of Maynooth ED was 18,729, representing a population growth of 2,731 since the 2016 Census (15,998). The CSO population statistics from 2016-2022 display an intercensal population change of 17.07% (CSO, 2022)²⁷. It is noted that this ED covers a large rural hinterland in County Kildare and not just the settlement of Maynooth. The 2022 population for the settlement of Maynooth was recorded as 17,259 people.

Maynooth is a large active town in north-east Kildare and is strategically located on the Dublin to Sligo railway line, M4 Motorway and the Royal Canal.

²⁷ CSO (2022) Population Statistics. Available at: <u>Home - CSO - Central Statistics Office</u>

The 2022 Census shows that County Kildare as a whole, has seen strong a population growth from 2016 census data (CSO, 2022)²⁸.

The Core Strategy of the Kildare CDP 2023-2029 allocates housing and population growth within Maynooth of 10.9% of the overall county growth allocation. Table 2.8 of the CDP identifies dwelling targets for the year 2023. The growth estimates for Maynooth are reproduced in Table 5.1 below. The Core Strategy of the Meath CDP 2021-2027 allocates 1,000 population to the Maynooth Environs for the period 2021-2027.

Table 5.1 Excerpt from Table 2.8 of Chapter 2 Kildare County Development Plan 2023 – 2029

Settlement Type	Key Town
Towns	Maynooth (MASP)
2016 Population Census	14,585
Settlements percentage per total County population	6.6%
2021 Population Estimate (based on % growth from 2011-2016)	15,429
Housing and Population Target %	10.90%
Population Target 2023 to 2028 (end of Q4) (persons)	2741
Housing Target 2023 to 2028 (end of Q4) (units) in accordance with HSTGs	997
Residential Zoned Land Requirement (ha)	-
Target Residential Density (UPH)	35-50

Maynooth is identified as Key Town in the metropolitan area in the RSES. The RSES recognises the Maynooth Environs, which are located in County Meath, as a strategic location for economic development that will support the future development of the town and the delivery of the Maynooth Outer Orbital Route (MOOR), which is a key piece of infrastructure in the sustainable growth of the town. Thus, this draft Joint LAP for Maynooth and Environs is being prepared by KCC and MCC. This draft Joint LAP will provide a co-ordinated framework for the future development of Maynooth¹² (MCC, 2021).

Maynooth's strategic location on the Dublin to Sligo railway line, the M4 Motorway and Royal Canal, along with the presence of Maynooth University is essential in it being designated as a Metropolitan Key Town. The future development of Maynooth is important at both a county level but also at a regional level, in supporting the growth of the capital. Maynooth has been identified as having the capacity and future growth potential to accommodate above average growth in the region and as part of the Metropolitan Area Strategic Plan (MASP) contained in the RSES. Maynooth has also been allocated a population increase of up to 10,000 persons over the period to 2031, provided there is the necessary investment in employment creation, services, amenities and sustainable transport²². This is in addition to the population/housing allocation to Maynooth under the respective CDPs of Kildare and Meath.

The RSES includes provision for the redistribution of up to 20% of the population growth targeted for Dublin City and Suburbs to the Metropolitan Key Towns of Maynooth, Bray and Swords²⁹.

These allocations have been determined by the MASP Implementation Group in July 2020. The Implementation Group comprises of representatives of the Metropolitan Local Authorities and the Eastern and Midland Regional Assembly. The MASP Implementation Group has allocated 'up to' and additional

²⁸ CSO (2022) Press Statement Census of Population 2022 - Preliminary Results. Available at: <u>Press Statement Census of Population 2022 - Preliminary Results - CSO - Central Statistics Office</u>

²⁹ Eastern and Midland Regional Assembly (2019) RSES Section 5.7 of the MASP 'Housing Delivery'. Available at: <u>Eastern and Midland Regional</u> Assembly Regional Spatial and Economic Strategy (RSES) - Eastern and Midland Regional Assembly (emra.ie)

10,000 allocation to Maynooth (County Kildare). No specific increase was allocated to the Maynooth Environs.

5.2.2 Human Health Baseline

The concept of health has been defined by the World Health Organisation as "... a state of complete physical, psychological and social well-being, and not simply the absence of disease or infirmity." Health is influenced by many factors in the social and built environment including housing, employment status, education, transport and access to fresh food and resources, as well as the impacts of air quality, water quality, flooding, and access to green space.

Good planning can play an important role in reducing health inequalities. The World Health Organisation's Commission on the Social Determinants of Health (CSDH) states governments should 'ensure urban planning promotes healthy and safe behaviours equitably, through investment in active transport, retail planning to manage access to unhealthy foods, and through good environmental design and regulatory controls, including control of the number of alcohol outlets'.

Given the strong links between income and health, it is recognised that the sustainability of current and future economic activity is an important element in protecting and promoting population health. However, emphasising economic growth without due regard for social and environmental consequences of such growth can have negative impacts on health both for the population as a whole and for groups within the population.

Even within areas of economic development, job creation does not necessarily 'trickle down' to job opportunities for the long-term unemployed, and is neither a sufficient, nor necessary, condition for reducing long-term unemployment. Thus, economic development needs to be targeted, geographically and within population groups to ensure that it reduces and does not exacerbate social inequalities.

Cognisance must also be paid to environmental issues and sustainability endeavours to protect human health as the local economy develops. While employment is generally good for health, there can be negative impacts, usually related to the quality of the working environment and type of work undertaken. The groups which face the highest risk of experiencing the adverse effects of unemployment appear to be middle-aged men, youths who have recently left school, the economically marginal such as women attempting re-entry to the labour force and children in families in which the primary earner is unemployed.

The level of green space and access to the natural environment is extremely important for the populace health. The health and wellbeing of individuals is greatly affected by the communities in which they live and the nature of their physical environment. A key element of sustainable communities is access to space as environments which lack public gathering places can encourage sedentary living habits. Open space provision can improve levels of exercise in a community which can impact on health and can improve social interaction and community activities which can contribute to reducing stress-related problems. Green space in areas of archaeological heritage also impacts health and wellbeing similarly, both to individuals, communities and promotes the overall social, economic, cultural, and environmental benefit of the area. In addition to the green spaces that many recorded monuments provide, nurturing an awareness and appreciation of such monuments within a community can contribute to enhancing a sense of identity, place and belonging. Thus can also add to benefits such as reduced stress levels and increased social responsibility.

The Kildare CDP and the Meath CDP set out each local authority's policies and objectives relating to the provision of health services in the county. It is the policy of the KCC, e.g. to, 'Support the Health Service Executive (HSE) and other statutory and voluntary agencies in the provision of appropriate healthcare facilities, including the system of hospital care and the provision of community based primary care facilities appropriate to the size and scale of each settlement' 30 (KCC, 2022).

According to 2016 Census Data, 1.09% of the ED of Maynooth identified themselves as having Bad or Very Bad health. The number of individuals who stated that their health as either Bad or Very Bad in 2022 was 206. Census 2022 Data for Very Good Health in Maynooth have been recorded to include 11,058 individuals, which is a percentage of 59% of the total recorded population in Maynooth.

³⁰ KCC (2022) Kildare County Development Plan 2023-2029. Available at: <u>2. Core Strategy | Kildare County Council (kildarecoco.ie)</u>

Good Health Status was recorded to include 5,133, making up 27.4% of the recorded health records in Maynooth and the remaining health status' in Maynooth were recorded as Fair or Not Stated in 2022³¹.

The ED of Rodanstown, whereby a small area of this ED will make up the Maynooth Environs described in the draft Joint LAP, has identified 0.8% of themselves as having Bad or Very Bad health. The number of individuals who stated that their health either Bad or Very Bad in 2022 was 15. Census 2022 Data for Very Good Health in Rodanstown have been recorded to include 1,193 individuals, which is a percentage of 63.9% of the total recorded population in Rodanstown. Good Health Status was recorded to include 514, making up 27.5% of the recorded health records in Rodanstown and the remaining health status' in Rodanstown were recorded as Fair or Not Stated in 2022³¹. However, the relatively small area that the Maynooth and Environs draft Joint LAP will encompass in Rodanstown, County Meath, includes undeveloped land that is yet to be populated (CSO, 2022)³².

The greatest health risk from radiation in Ireland is caused by radon, which accounts for more than half of the total radiation dose received by the Irish population. As a known carcinogen, in the same category as tobacco smoke and asbestos it is a cause of lung cancer. Up to 250 cases of lung cancer in Ireland every year can be linked to radon. These lung cancer cases are principally associated with exposure to radon in the home, but exposure in the workplace is also a contributor. In the workplace, the employer must protect the health of workers from this identifiable risk.

Certain areas of the country are more likely to have a high number of homes with excessive levels of radon and these areas are known as High Radon Areas. They can be found on the radon map of Ireland. The map was produced from a national survey of approximately 11,000 homes. In addition to the map, statistics for the number of homes above the national Reference Level are available for each country in Ireland.

The government's Building Regulations require that all new homes in High Radon Area are installed with a Radon Barrier. According to the EPA Radon Map, the majority of land cover in Maynooth has been identified to see 'about 1 in 20 homes in this area are likely to have high radon levels' this rating was also inclusive to the Environs included as part of the draft Joint LAP. However, partial areas to the east, centre and north of Maynooth have been identified to see 'about 1 in 10 homes in this area likely to have high radon levels' ³³(EPA, 2024).

The assessment of impacts on human health will reference other sections of the SEA as relevant along with considering aspects such as the Industrial Emissions Directive, the Control of Major-Accident Hazards Involving Dangerous Substance ("SEVESO") Directive and Flood Risk Assessments. This will ensure that all relevant vectors through which human health impacts could be caused as a result of the draft Joint LAP are assessed.

The SEVESO Directive 2012/18/EU came into effect in Ireland on 1st June 2015, replacing the SEVESO II Directive 96/82/EC. There are no designated SEVESO sites located within the draft Joint LAP study area³⁴.

5.3 Biodiversity including Flora and Fauna

The Convention on Biological Diversity defines biodiversity as "the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part". This includes sites, habitats, species and networks of importance at the international, national or local level, and which may occur within or outside the draft Joint LAP study area.

The term biodiversity refers to more than individual species. It includes the genes they contain, the habitats and ecosystems of which they form part, and also highlights the interdependence and interconnectedness of all living things.

³¹ CSO (2016) Census of Population 2016 - Profile 9 Health, Disability and Carers. Available at: General Health - CSO - Central Statistics Office

³² CSO (2016) Health Statistics. Available at: Map 4.2: General health bad and very bad by electoral division, 2016 (arcgis.com)

³³ EPA (2024) EPA Random Risk Map of Ireland. Available at: EPA Maps

³⁴ HSE (2022) Seveso III - Public Consultation. Available at: <u>Seveso - HSE.ie</u>

The main elements of biodiversity are:

- European (Natura 2000) sites (SACs and SPAs, and candidate SACs and SPAs).
- NHAs, National Parks, Nature Reserves, Wildfowl Sanctuaries, Refuges for Fauna or Flora or sites proposed for designation.
- Undesignated sites such as proposed NHAs (pNHAs), local biodiversity areas.
- Sites and habitats that can be considered to be corridors or stepping-stones for the purpose of Article 10 of the Habitats Directive.
- 'Natural habitats and protected species' for the purposes of the Environmental Liability Directive, including habitats and species listed under the Habitats Directive (Annex I habitats, Annex II and Annex IV species and their habitats) and Birds Directives (Annex I species and their habitats, and regularly occurring migratory birds) wherever they occur
- Legally protected species including protected flora under the European Communities (Birds and Natural Habitats) Regulations 2011 and Wildlife Acts 1976-2000.
- Sites identified under the Bern, Ramsar and Bonn Conventions; and
- Biodiversity in general including habitats important for birds, red listed and BoCCI listed species, natural and semi-natural habitat areas including wetlands, woodlands, waterbodies, etc.

5.3.1 Baseline

Natural heritage in County Kildare includes a wide range of natural features that make an essential contribution to the environmental quality, ecological biodiversity, landscape character, visual amenity and recreational activities across the County. The town of Maynooth is home to rich biodiversity resources as the Lyreen River and Royal Canal flow through the town, excellent ecological resources for wildlife and ecological connectivity to the wider landscape are also prominent. Maynooth also has a small wetland area at the Lyreen Angling Centre which although artificially constructed provides wetland habitat which is not common in the area³⁵ (D., D'Arcy, Maynooth Tidy Towns Group, 2017).

The Maynooth Biodiversity Action Plan 2023-2028 aims to guide the local community and stakeholders in their efforts to protect and restore some of their natural heritage and maximise the benefits that nature can provide for the people of Maynooth. The Maynooth Biodiversity Action Plan 2023-2028 outlines five objectives to help the community build on recent progress and help Maynooth increase biodiversity in the area, they are as follows:

- **Objectives 1**: Make room for biodiversity in Maynooth.
- Objectives 2: Controlling Invasive Species
- **Objectives 3:** Move towards the elimination of herbicides use.
- Objectives 4: Raising awareness of biodiversity.
- **Objectives 5**: Citizens Science: Collecting evidence to track change and measure success.

The Kildare County Biodiversity Plan also provides a framework for conserving biodiversity and natural heritage at a county level. It complements the Kildare Heritage Plan by including detailed actions to deliver positive outcomes focused on species and habitats. The Meath Biodiversity Action Plan 2015-2020 and Meath Heritage Plan 2015-2020 have been assessed and interact similarly, where the Maynooth Environs (Moygaddy, County Meath) are included in the draft Joint LAP.

The dominant environments across Maynooth are improved and amenity grassland, intensive agriculture and arable grassland, urban, built land, woodland and shrub and wetlands.

³⁵ D., D' Arcy, Maynooth Tidy Towns (2017) Maynooth Biodiversity Action Plan 2017-2021. Available from: KCC

For this reason, it is important to ensure that local biodiversity areas support connectivity within the network, are maintained, and given the opportunity to increase their distribution.

The biodiversity of County Kildare and County Meath are protected by National and EU legislation (The Wildlife Act (1976 and 2000) and the EU Habitats and Birds Directives) and is also protected by KCC through policies in the Kildare CDP and MCC through policies of the Meath CDP (as varied).

Maynooth is located in the northeast of Kildare and the Maynooth Environs is located in County Meath, on the northern periphery of the town. The lands within Maynooth Environs are largely undeveloped at present and comprise of roughly 141 hectares of land approximately 1.5km to the northeast of the town centre. The Maynooth Environs are bisected by the R157 road which links Maynooth to Dunboyne. For the purposes of this draft Joint LAP the lands are taken to contain all lands zoned within the study area of the Maynooth Environs including the lands in County Meath which form part of Carton Demesne.

5.3.1.1 *Habitats*

The lands within the Maynooth Environs, to the west of the R157 are inclusive of 98 hectares (ha) that are currently in use as a stud farm. The existing buildings on these lands reflect this use and consist of a purpose-built stud dating from the 1830s.

The lands to the east of the R157 include approximately 41 hectares and consist of a mixture of pasture, scrub, and woodland associated with Carton Demesne. The town of Maynooth is predominantly urban in nature but is surrounded by agricultural grassland and arable fields bounded by a hedgerow network. The presence of hedgerows are particularly strong north of Laraghbryan East and north and south of Carton Avenue where the hedgerows and treelines provide connectivity to the Lyreen River and the canal, and to the wider countryside in Maynooth. The density of hedgerows in the Maynooth area was however noted in the Maynooth and Environs Habitat Mapping Report (2024)³⁶ to be less than the average hedgerow density for County Kildare³⁵.

Maynooth is inclusive to a small wetland area at the Lyreen Angling Centre which although artificially constructed, provides wetland habitat which is not common in the area.

Amenity grassland and gardens also make up a substantial portion of the urban environment in Maynooth, particularly where, the university campus provides large areas of green space, and residential estates have grassland areas of varying sizes which are often underutilised. The campuses of Maynooth University St Patrick's College feature mature treelines, pockets of young woodland recently planted, an orchard and extensive amenity grassland areas. Pockets of tree groves, small woodlands, hedgerows and even mature garden shrubbery within the town are valuable for the plant species they contain and the wider biodiversity they support including birds, bats and insects and other invertebrates. Another impressive area of tree cover in Maynooth is Carton Demesne, which is intimately linked with the town through a kilometre long tree-lined avenue³⁵. These areas also act as ecological corridors through which species can migrate and interact with the wider area. Similarly, roadside verges and the canal verges as remnants of semi-natural grasslands can be very valuable biodiversity resources if managed correctly³⁵.

The Laraghbryan Cemetery and the immediate surrounding area has also been identified as a small local biodiversity site due to the semi-natural habitats present and their potential to support nesting sites for birds and bats.

5.3.1.2 *Species*

Maynooth is home to several rare, protected and/or threatened plants and animals. Protected plants are those that are legally protected under the Flora Protection Order 2022 (S.I. No. 235 of 2022) (e.g., Hairy St John's-wort). Various animals are also afforded protection within the Wildlife Acts (e.g., all native mammals). Species listed on Annex II of the European Union Habitats Directive (e.g., Salmon, White-clawed Crayfish or Dragon fly)³⁵.

³⁶ WS Atkins Ireland Limited (2024) Maynooth + Environs Habitat Mapping Report. Available from KCC.

Maynooth's urban environment, particularly old stone buildings and walls have been valuable features for bats, birds and invertebrates. Daubenton's bat, pipistrelle bats and Leisler's bats have been previously recorded in Maynooth and it is likely that there are other bat species present³⁵.

Flora

The Royal Canal (Site Code: 002103) which runs through the draft Joint LAP study area is home to the legally protected Opposite-leaved Pondweed (*Groenlandia densa*) under the Flora Protection Order 1987 and *Tolypella intricate*, a stonewort protected under the Red Data Book as being vulnerable. Both of these species are present in the Dublin section of the canal. The main extent of the canal boundary is dominated by hedgerow, tall herbs, calcareous grassland, reed fringe, open water, scrub and woodland.

In particular, the northern margins of the Royal Canal support a towpath fringed by strips of amenity grassland that are commonly used for recreational purposes. This path backs onto a strip of linear woodland associated with St Patrick's College and Maynooth University which comprises of sycamore, tall ash and horse chestnut with abundant ivy on the ground layer. The southern margins of the Royal Canal backs onto the railway line and is separated by a mounded verge which is comprised of tussocky grasses and bramble dominated scrub with scattered hawthorn and grey willow trees. The ecological value of the canal lies more in the diversity of species it supports along its linear habitats than in the presence of rare species. It crosses through agricultural land and therefore provides a refuge for species threatened by modern farming methods. The main channel of the Royal Canal is fringed by marginal growth with locally abundant branched burred and reed sweet-grass, frequent reed canary-grass and the occasional common club-rush, wild angelica and meadowsweet. Aquatic plants include water lily, spiked water milfoil, mare's tail, a stonewort (*Chara nobulis*) and the invasive Canadian waterweed ³⁷(BEC, 2013).

The Rye Water Valley / Carton (Site Code: 001398) which also runs through the draft Joint LAP study area is located between Maynooth and Leixlip on the Rye Water (a tributary of the River Liffey) along the Carton Demesne. The river was dammed at intervals creating a series of lakes through the estate³⁵.

The river contains a thermal petrifying spring, which is a habitat listed on Annex 1 of the EU Habitats Directive³⁸. The main importance of the site lies in the presence of several rare and threatened plant and animal species and of the rare thermal, mineral, petrifying spring habitat. Flora found at this site include:

- Hairy St John's-wort (*Hypericum hirsutum*)
- Green Figwort (Scrophularia umbrosa); and
- Myxomycete fungus (*Diderma deplanatum*)³⁹(NPWS, 2020).

The Lyreen River, which is a tributary of the Rye Water River, is also located within the draft Joint LAP study area. St Patrick's college grounds, as located in this draft Joint LAP study area are inclusive to a section of the Lyreen River which is diverted to form a millrace. The Maynooth and Environs Habitat Mapping Report (2024)³⁶ stated that the main channel of the Lyreen is heavily fringed by treelines continuing on to smaller pockets of recently planted broadleaved woodland and mixed broadleaved / conifer woodland; a pocket of wet willow alder ash woodland located to the east is comprised of grey willow with a ground layer of ivy, nettle, alexanders, and enchanter's nightshade.

A line of riparian woodland is also located along the margins of the Lyreen River, which comprises of tree species such as alder, osier and ash, in additions have also more recently been planted so that the area includes sycamore and horse chestnut tree species. The area of the Lyreen River is also home to steeply terraced slopes that have been found to support scattered scrub comprising hawthorn, elder, bramble and young sycamore trees³⁵.

³⁷ BEC Consultants (2013) Ecological Study of the Royal Canal between Talbot Bridge and Maynooth Train Station. Available at: <u>projects | BEC Consultants (botanicalenvironmental.com)</u>

³⁸ Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora

Maynooth University and St Patrick's College also host large areas of mature treelines, tree groves, young tree plantations, and orchards. The tree species located in this area are predominantly non-native and include species such as lime, beech, sycamore, yew, pedunculate oak and horse chestnut.

Some plants with invasive tendencies including bamboo, and red osier dogwood were identified near the bridge over the Lyreen River within the grounds of St Patrick's College³⁵.

Lastly, the Lyreen Angling Centre is centred on a series of artificial ponds and fringing reed swamp which is home to surrounding areas of alder, willow ash plantation and rough grassland³⁵.

Fauna

The Rye Water Valley / Carton (Site Code: 001398) that runs through the draft Joint LAP study area is home to a number of protected animal species including:

- Kingfisher
- Salmon and White-clawed Crayfish (Austropotamobius pallipes)
- Dragonfly (*Orthetrum coerulescens*)
- Narrow-mouthed Whorl Snail (Vertigo angustior); and
- Desmoulin's Whorl Snail (Vertigo moulinsiana)³⁹.

The White-clawed Crayfish is regarded as a keystone species. In Ireland, it is found in large rivers (such as the Rye Water Valley), small headwater tributaries and in lakes. A variety of aquatic habitats are important for crayfish. Juvenile crayfish live among submerged tree roots, gravel or macrophytes, while larger crayfish must have stones to hide under, or an earthen bank in which to burrow. White-clawed Crayfish are widespread across much of Ireland, inclusive to this area of the draft Joint LAP and populations have not declined to the extent that they have in other parts of Europe. Carton Demesne is home to two species of rare snails, as listed above, which occur near Louisa Bridge. The Rye Water Valley is also an important spawning ground for trout and salmon³⁵.

The Lyreen River, as a tributary of the Rye Water River also acts as a viable corridor for mammals and birds that, together with the fringing treelines, woodland, and hedgerows, provides suitable shelter, habitats and commuting routes for birds, bats and small mammals. This river forms an ecological corridor between the Royal Canal and the Rye Water River. It ensures an overall link of three significant watercourses within this locality of Maynooth³⁵.

As previously discussed, the Lyreen Angling Centre is centred on a series of artificial ponds and although these ponds are manmade, they are valuable wildlife habitat particularly due to the lack of wetland habitats in the local area. The ponds may serve as steppingstones to other freshwater habitats in the area, such as the Rye Water River, the Lyreen River and tributaries and the Royal Canal for wetland species such as Moorhen, Mallard and Coot, as well as being an important recreational area³⁵.

Bats, birds, and invertebrates have also been recorded in the Maynooth area, species such as, Daubenton's bat, pipistrelle bats and Leisler's bats have been notably recorded³⁵.

The town's swift population is a significant biodiversity asset within the draft Joint LAP study area. Swifts are an urban bird species of conservation concern in Ireland.

5.3.1.3 Trees

Tree Preservation Orders (TPOs) may be made under Section 45 of the Local Government (Planning and Development) Act 1963 and subsequent acts. Part XIII of the Planning and Development Act 2000, (as amended) sets out the provisions for TPOs. A TPO can be made if it appears to the planning authority to be desirable and appropriate in the interest of amenity or the environment. A TPO can apply to a tree, trees, group of trees or woodland.

³⁹ NPWS (2022) Protected Sites. Available at: <u>Protected Sites in Ireland | National Parks and Wildlife Service (npws.ie)</u>

The principle effect of a TPO is to prohibit the cutting down, topping, lopping or wilful destruction of trees without the planning authority's consent. The order can also require the owner and occupier of the land subject to the order to enter into an agreement with the planning authority to ensure the proper management of the tree, trees or woodland.

Whilst there are no TPOs within the draft Joint LAP study area, the following trees are identified in the Maynooth LAP 2013-2019 as trees of special amenity value to be protected:

- Main Street
- Lime Avenue
- Leinster Street
- College Lands
- Maria Villa
- Castle Area
- Rear of Pound; and
- Around the cemetery on Kilcock Road⁴⁰ (Arup, 2013).

Woodlands and scrub within the draft Joint LAP study area are often associated with established public institutions such as Maynooth University, St Patrick's College and along the larger watercourses such as the Lyreen River and the Royal Canal. In other areas they occur as small, isolated pockets associated with private dwellings and public amenity areas. Overall, the pockets of woodland and scrub are of considerable ecological importance in the draft Joint LAP study area. Even those dominated by non-native species provide valuable cover and shelter for mammals and birds and provide habitat for the more common woodland plant and fungi species. These habitats, particularly those that fringe the Royal Canal and the Lyreen River, further enhance the ability of these watercourses to act as ecological corridors³⁶.

5.3.1.4 Designated Sites

There are a range of statutory provisions in force in Ireland to protect, conserve and manage our natural heritage, and to control and regulate human activities that may impact upon it negatively. The Department of Housing, Local Government and Heritage is responsible, through the National Parks and Wildlife Service, for the designation of conservation sites in Ireland. Currently, there are three main types of designation of protected areas: Special Areas of Conservation (SAC), Special Protection Areas (SPA) and National Heritage Areas (NHA).

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) by the DHLGH due to their conservation value for habitats and species of importance in the European Union.

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

There is one SAC in the draft Joint LAP study area, the Rye Water Valley / Carton SAC (Site Code: 001398). Natura 2000 Sites within the draft Joint LAP study area have been illustrated in Figure A2 in Appendix A. There are no SPAs within the draft Joint LAP study area.

NHAs are designated due to their national conservation value for ecological and or geological and or 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

⁴⁰ Arup (2013) SEA Environmental Report Maynooth LAP 2013-2019. Available at: Report (kildarecoco.ie)

are designated under the Wildlife (Amendment) Act 2000. Proposed NHAs were published on a non-statutory basis in 1995 but have not since been statutorily proposed or designated.

There are two proposed Natural Heritage Area (pNHA), the Royal Canal pNHA and the Rye Water Valley pNHA, within or adjacent to the draft Joint LAP study area. There are no other NHA's within 15km distance of Maynooth and its Environs.

There are two other SACs located within 15km of the draft Joint LAP study area, described shown in Table 5.2.

Table 5.2 SACs and SPAs located within 15km of draft Joint LAP study area, but outside the draft Joint LAP study area.

Site Code	Site Name	Qualifying Habitats	Qualifying Species
001387	Ballynafagh Lake SAC	Alkaline fens (7230)	Desmoulin's Whorl Snail (1016); and
			Marsh Fritillary (1065)
000391	Ballynafagh Bog SAC	Active raised bogs (7110);	N/A
		Degraded raised bogs still capable of natural regeneration (7120); and	
		Depressions on peat substrates of the Rhynchosporion (7150)	

A Zone of Influence using the Source-Pathway-Receptor method is utilised to assess for potential impacts during the SEA and AA process.

5.3.1.5 Urban Expansion

Urban expansion has been accelerating over recent years as increased development expands into the countryside. The constant encroachment of the built environment on natural habitats will undoubtedly have an impact on natural flora, fauna, and biodiversity.

Biodiversity is also intrinsically linked to heritage, both natural and man-made, and sensitively maintained archaeological monuments and sites are often excellent repositories and refuges for flora and fauna.

5.3.1.6 Water Dependant Habitats

In general, water treatment and wastewater discharges, agricultural run-off, leachate from contaminated sites, urban run-off and unlicensed industrial discharges all have significant negative impacts on water quality which results in subsequent impacts to biodiversity to both aquatic ecosystems as well as neighbouring terrestrial ecosystems. In the vicinity of Maynooth, the water dependant ecosystems of the Rye Water, a tributary of the River Liffey, and Royal Canal rely on good water quality.

Any impacts to these surface waters could lead to a deterioration of water quality and a consequent impact to their ecosystems. The Maynooth area is within the River Liffey catchment which is classified as a nutrient sensitive water body.

Unrestrained development can have a direct impact on water dependent and rare habitats. Abstractions for potable water can also result in a direct impact on rivers and lakes and their associated flora and fauna and on groundwater dependent habitats.

5.3.1.7 Invasive Species

Invasive non-native plant and animal species are one of the greatest threats to biodiversity. Invasive alien species negatively impact biodiversity through competition, herbivory, predation, habitat alteration and introduction of parasites or pathogens and poses a risk to the genetic integrity of our native species.

Terrestrial and aquatic habitats can be significantly negatively impacted, resulting in severe damage to conservation and economic interests, such as agriculture, fisheries, forestry and various recreational activities.

Threats to watercourses and wetlands in Maynooth include invasive species like Indian balsam and Japanese knotweed. Within the main channel of the Royal Canal an aquatic invasive species known as Canadian waterweed has also been recorded.

Threats to woodland and shrub habitat in Maynooth include invasive species like the North American Grey Squirrel and woodland clearance.

Some plants with invasive tendencies have also been recorded in the Maynooth area, including bamboo, red osier dogwood which were identified near the bridge over the Lyreen River in the South of the campus⁴¹ and Japanese knotweed (*Reynoutria japonica*) which were found within Carton Demesne woodlands³⁶.

5.4 Land and Soils

5.4.1 Baseline

According to the report 'The Geological Heritage of Kildare' the predominant rock type in County Kildare is sedimentary rock, limestone of Carboniferous age in particular⁴² (GSI, 2005).

The soils underlying the study area are identified by the Geological Survey of Ireland as being predominantly Made Ground in the urban centre. Made ground consists of materials modified by people, including those associated with mineral exploitation and waste disposal. They include materials deposited as a result of human activities or geological material modified artificially so that their physical properties (structure, cohesion and compaction) have been drastically altered⁴³ (N. Foulkes, 2006).

The central area of Maynooth is urban in nature, outside of this urban centre, to the south-east of Maynooth the area consists of the soil association 'fine loamy drift with limestones'. The Maynooth Environs also predominantly consist of underlying 'fine loamy drift with limestones'.

North of Maynooth's urban centre the soil association is 'silty river alluvium' which can be identified along river routes⁴⁴ (Teagasc, 2022). Other soils within the draft Joint LAP study area include Straffan and Elton⁴⁴.

The western area of the draft Joint LAP is described as deep, poorly drained material while the eastern section is described as deep, well-drained material. Both soil types are derived from calcareous parent material. The draft Joint LAP study area geology is dominated by limestone, limestone shale and limestone conglomerates. There are three bedrock types which border on a south-west to north-east axis of the draft Joint LAP study area. The northern and eastern section of the draft Joint LAP study area is dark limestone and shale (Lucan Formation). The south-eastern section of the draft Joint LAP study area is comprised of unbedded lime-mudstone (Waulsortian Limestones). There is a band of calcareous shale and limestone between these bedrock sections.

Refer to Figure A3 in Appendix A for details of the soils in the vicinity of the draft Joint LAP study area. Bedrock geology in the vicinity of Maynooth and Environs has also been illustrated in Figure A4 in Appendix A.

There are no sites of Geological Heritage located within the draft Joint LAP study area, however, two sites of geological heritage are located in proximity to the draft Joint LAP study area, those of which include Louisa Bridge Springs and St Patrick's Well.

Refer to Figure A5 in Appendix A for Geological Heritage in the vicinity of Maynooth and Environs.

⁴¹ D., D' Arcy, Maynooth Tidy Towns (2017) Maynooth Biodiversity Action Plan 2017-2021. Available from: KCC

⁴² Geological Survey of Ireland (GSI) (2005) The Geological Heritage of Kildare. Available at: <u>Geology of Kildare - Kildare County Council</u> (kildarecoco.ie)

⁴³ N. Foulkes (2006) The Heritage Council - COUNTY KILDARE HEDGEROW SURVEY REPORT. Available at: Microsoft Word - County Kildare Hedgerow Survey Report .doc (hedgelaying.ie)

⁴⁴ Teagasc (2022) Soil Maps. Available at: SIS Map (teagasc.ie)

5.5 Water Resources

5.5.1 Baseline

5.5.1.1 Hydrology

Since 2000, Water Management in the EU has been directed by the Water Framework Directive 2000/60/EC (WFD). The WFD has been transposed into Irish legislation by the European Communities (Water Policy) Regulations 2003 (SI No. 722 of 2003) and 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 by 2015.

For the purpose of implementing the WFD, Ireland has been divided into eight river basin districts or areas of land that are drained by a large river or number of rivers and the adjacent estuarine / coastal areas. County Kildare falls within the Eastern River Basin District (ERBD). Maynooth and Environs are located in the ERBD, in WFD Catchment 09 – Liffey and Dublin Bay⁴⁵ (EPA, 2022).

There are two water bodies within Catchment 09 that are located within the draft Joint LAP study area - the River Lyreen and the River Rye Water. The EPA monitor water quality of water bodies throughout Ireland, in accordance with the WFD Directive.

According to the EPA, the River Lyreen, as it flows through Maynooth, is classified as being of 'poor' water quality. The River Rye Water, as it flows through Maynooth, is classified as being of 'moderate' water quality. Both the Rye Water and Lyreen watercourses located in the draft Joint LAP have been classed by the EPA as 'At Risk'⁴⁵.

Runoff from urban areas includes a toxic cocktail of pollutants washed off the urban impermeable areas into receiving waterbodies. This polluting effect has been identified by the EPA as one of the primary sources of pollution from urban areas, alongside discharges from urban wastewater systems.

Nutrient Sensitive Waters comprise nitrate vulnerable zones designated under the Nitrates Directive (91/676/EEC) and areas designated as sensitive under the Urban Waste-Water Treatment Directive (91/271/EEC). There are no nutrient sensitive rivers located within the draft Joint LAP study area.

The Royal Canal, a proposed Natural Heritage Area (Site Code: 002103) is also located in the Maynooth and Environs LAP study area, it runs from Dublin (North) westwards serving Leixlip, Maynooth and Kilcock and continues to Mullingar and Longford. According to EPA the Royal Canal Main Line is classified as 'good'. At present under River Waterbodies Risk the Royal Canal Main Line has been marked as under 'Review' on the EPA website⁴⁵.

The EPA River Networks within the vicinity of the draft Joint LAP study area has been illustrated in Figure A6 in Appendix A.

The Water Framework Directive (WFD) River Quality Status' within the vicinity of the draft Joint LAP study area are shown in Figure A7 in Appendix A.

The WFD River Risk Status' within the vicinity of the draft Joint LAP study area are shown in Figure A8 in Appendix A.

There are no natural lake water bodies present in the draft Joint LAP area, the EPA Lake Network in the vicinity of the draft Joint LAP study area is illustrated in Figure A9 in Appendix A. The WFD Lake Waterbody Status (2013-2018) is illustrated in Figure A10 in Appendix A and the WFD Lake Risk Status is also illustrated in Figure A11 in Appendix A There are however three artificial lakes within the draft Joint LAP study area, all of which are located in the Lyreen Angling Centre on the Dunboyne Road.

 $^{^{45}}$ EPA (2024) Water Maps. Available at: $\underline{EPA\ Maps}$

5.5.1.2 Hydrogeology

An aquifer is defined as 'an underground body of water-bearing rock or unconsolidated materials (gravel or sand) from which groundwater can be extracted in useful amounts'. The draft Joint LAP study area is underlain predominantly by a locally important aquifer which is moderately productive in local zones.

There is also an unproductive aquifer corresponding to the band of calcareous shale and limestone bedrock within the draft Joint LAP study area.

Groundwater in the western part of the LAP study area is moderately vulnerable. In the remaining eastern area groundwater is highly vulnerable with sections of extreme vulnerability. Groundwater vulnerability is presented in Figure A13 in Appendix A. The Maynooth Environs are located above these areas of high and extreme vulnerability. In the Maynooth Environs there is a very small area of highly and extremely vulnerable groundwater, however the overall Environs area has been assessed as low vulnerability⁴⁵. The Groundwater Directive (GWD) 2006/118/EC is the current Directive in place for the protection of groundwater against pollution and deterioration in Ireland⁴⁶ (EEA, 2006).

The Water Framework Directive (WFD) Groundwater Bodies Status in the vicinity of the draft Joint LAP study area is recorded to be of 'good' quality status from 2016-2021 EPA records (EPA, 2016)⁴⁷. The WFD Groundwater Body Status for the draft Joint LAP study area is shown in Figure A12 in Appendix A.

Protected Drinking Water (Groundwater) in the region is shown in Figure A14 in Appendix A. Groundwater Features and Public Supply Source Protection Zones in the vicinity of the draft Joint LAP study area are shown in Figure A15 in Appendix A.

5.5.1.3 Flooding

The Office of Public Works (OPW) has recorded a number of past flooding events along the rivers and streams passing through the draft Maynooth and Environs LAP study area, the three rivers located throughout include: The River Rye, the River Lyreen and the Royal Canal. Predominantly, singular flooding events have occurred across these locations 48.

KCC is part of the Eastern Catchment Flood Risk Assessment and Management (CFRAM) Study. The draft Joint LAP will take into consideration the CFRAMs programme during the lifetime of the draft Joint LAP. Flooding in Maynooth is predominantly fluvial in nature⁴⁸.

The draft Joint LAP will manage flood risk and development in line with the approved policies and objectives of both the Kildare CDP and Meath CDP. The draft Joint LAP will also ensure that the distributor road has appropriate site-specific Flood Risk Assessment (FRA) and OPW section 50 consent (MCC, 2021).

An area specific SFRA will be carried out to guide the future development of Maynooth and Environs as part of the draft Joint LAP development process and will also inform the SEA.

⁴⁶ EEA (2006) Groundwater Directive (GWD) 2006/118/EC. Available at: <u>Groundwater Directive (GWD) 2006/118/EC — European Environment Agency (europa.eu)</u>

⁴⁷ EPA (2016) WFD Groundwater Waterbody Status 2016 – 2021. Available at: WFD Groundwater Waterbody Status 2016 – 2021 - Datasets - data.gov.ie

⁴⁸ OPW (2022) Flood Maps. Available at: Flood Maps - Floodinfo.ie

⁴⁹ MCC (2021) Maynooth Environs. Available at: Maynooth Environs | Meath County Council Online Consultation Portal

5.6 Air, Noise and Climate

5.6.1 Baseline

5.6.1.1 *Air Quality*

The EPA measures the levels of a number of atmospheric pollutants throughout Ireland in order to measure compliance with Air Quality Standards Regulations, 2022 (S.I. No. 739 of 2022). For the purposes of monitoring in Ireland, four zones are defined in the Regulations:

- Zone A: Dublin Conurbation
- Zone B: Cork Conurbation
- Zone C: Other Cities and Large Towns; and
- Zone D: Rural Ireland which is the remainder of the State excluding Zones A, B and C.

Maynooth and Environs are located in Zone D. The Air quality in Zone D as reported in the EPA 2022 report 'Air Quality in Ireland 2022' is summarised in Table 5.3 below⁵⁰ (EPA, 2022). All pollutants for Zone D are well within compliance with Air Quality Standards. No information has been provided for Zone D in relation to Benzene in the latest EPA Air Quality in Ireland Report.

Table 5.3 Air Quality Assessment Zone D Concentrations 2022 compared to Air Quality Standards

Parameter	Zone	Average measured concentration (µg/m³)	Air quality standard (μg/m³)
NO ₂	Zone D	7.3	40
SO ₂	Zone D	5.0	20
СО	Zone D	0.8	10
Ozone	Zone D	61.6	120
PM ₁₀	Zone D	12.6	40
PM _{2.5}	Zone D	8.4	25

The most recent EPA dioxin similar survey shows that concentrations of dioxins and pollutants remain at a consistently low level in the Irish environment.

Current and future challenges to air quality in Ireland were identified as follows:

- Reduction of solid fuel use
- Efficient traffic management and provision of choice in terms of public transport in towns; and
- Transboundary impacts of ozone, to which Ireland's air mass is subject.

5.6.1.2 *Noise*

The Environmental Noise Directive (END) (2002/49/EC) requires that action is taken by each member state, with a view to preventing and reducing environmental noise where necessary (particularly where exposure levels can induce harmful effects on human health) and to preserving environmental acoustic quality where it is good. The relevant local authorities have been designated by the Environmental Noise Regulations, S.I. Regulations No. 140 of 2006, as the bodies charged with development and making of 'Noise Action Plans'.

KCC prepared the third Noise Action Plan (2019-2023)⁵¹ for County Kildare in 2019. MCC also prepared a Noise Action Plan for County Meath in 2019.

⁵⁰ EPA (2022) Air Quality in Ireland 2022. Available at: Monitoring and Assessment: Air Publications | Environmental Protection Agency (epa.ie)

This Noise Action Plans primarily consider the long-term environmental noise impact from road, rail and air traffic noise sources, and sets out an approach to review noise impact levels near to the major sources assessed during the strategic noise mapping with a view to identifying locations where noise reduction is deemed necessary in the first instance. There are no major agglomerations or major airports subject to noise mapping or action planning in either Kildare or Meath.

The KCC Noise Action Plan addressed Maynooth as one of fifteen population centres that are potentially exposed to noise from "Major Roads" in County Kildare. There is a number of sections of major roadway that are located either within, or immediately adjacent to Maynooth and Environs which qualified for noise mapping and, as such were subject to consideration for action planning. This refers to all areas exposed to noise from the "Major Roads" above a level of L_{den} 55 dB(A) and L_{night} 50 dB(A). Major roads in Maynooth and Environs which qualified for noise mapping are detailed in Table 5.4.

Table 5.4 Major Roads in Maynooth and Environs which qualify for Noise Mapping Source: 51 (KCC, 2019)

Road Type	Description
National Roads	M4 – Ballygoran to Treadstown
Regional Roads	R148

There are no roads within the draft Joint LAP study area which are identified in the MCC Noise Action Plan as being problematic from a noise perspective.

Proposals for residential developments near busy roads in urban areas may be required to show how it is proposed that impacts of noise are mitigated. A Noise Impact Assessment along with noise screening measures such as facade insulation and noise barriers should form part of proposals, as appropriate.

The general approach to be taken by KCC and MCC in managing environmental noise in Maynooth and Environs involves:

- Noise reduction at source
- Land use planning adapted to noise goals
- Procedures to reduce noise impact; and
- Operating restrictions to reduce noise emissions.

KCC and MCC have developed a detailed Programme of Works for the duration of their respective Noise Action Plans (2019 - 2023) and propose to implement the programme subject to the availability of the requisite technical staff, expertise and financial resources. A Dublin Agglomeration Noise Action Plan 2024-2028 is at draft stage (at time of writing), which includes County Kildare.

5.6.1.3 Climate

The existing climate for Maynooth and Environs corresponds with the general climatic conditions for the whole country which is dominated by the Atlantic Ocean and its air and oceanic currents.

Consequently, the region does not suffer from extremes of temperature. According to Met Éireann, for the first time, average annual temperature is greater than 11°C (record length 124 years)⁵². Average annual rainfall varies between about 790 and 2,000mm. According to the United Nations Integrated Panel on Climate Change, in line with the global picture, Ireland's average temperature has increased by about 0.7°C over the last 100 years, and the rate of increase has been higher in the last couple of decades, as reported by the EPA⁵³ (EPA 2022).

ireland/#:~:text=Ireland's%20climate%20is%20changing%20in,depending%20on%20the%20emissions%20trajectory.

⁵¹ KCC (2019) County Kildare Third Noise Action Plan 2019-2023. Available at: Final NAP Master Document 27.09.19.pdf (kildarecoco.ie)

⁵² Met Eireann, Provisional State of the Irish Climate Report 2023. Available at: https://www.met.ie/state-of-the-irish-climate-report-2023

⁵³ EPA (2022) What Impact Will Climate Change have on Ireland? Available at: https://www.epa.ie/environment-and-you/climate-change/whatimpact-will-climate-change-have-for-

The increase has not been uniform over time, with a warming period from 1910 to the 1940s, followed by a cooling period up to the 1960s. The current warming period commenced around 1980.

2006 was the warmest year recorded in Ireland since the record-breaking year of 1995 at both Malin Head and Phoenix Park, which have observations dating back over 100 years, and also at Casement Aerodrome, Kilkenny and Rosslare.

Met Eireann recorded May 2023 was the second warmest May recorded in Ireland in 124 years. 2022 was the previous warmest year on record at nearly 10.9°C, narrowly beating 2007 by just 0.1°C.

The Status of Ireland's Climate 2020 report by the EPA, Met Éireann and the Marine Institute, laid out all the effects of global warming felt in Ireland. This report noted that rainfall levels in Ireland between 1989 and 2018 were 6% higher than they were in the 30-year period before that. The Status of Ireland Climate 2020 report also shows that sea levels around the coasts of Ireland are rising⁵⁴ (EPA, 2020).

While the national scale of potential change is evident, translating the potential effects of climate change to a region is a process of inference on what will happen to Ireland at large being reduced to a regional scale

The potential rise in global temperature might affect the intensity and frequency of storms in the North Atlantic. As a consequence of stormy weather there exists the potential for flash flooding and erosion which would affect a wide range of ecosystems and economic sectors.

Climate Change Targets:

• European Green Deal

The European Green Deal, published by the European Commission in December 2019, provides an action plan to boost the efficient use of resources by moving to a clean, circular economy while cutting pollution and restoring biodiversity. The EU aims to be climate neutral in 2050. Reaching this target will require action by all sectors of the Irish economy, including.

- No net emissions of greenhouse gases by 2050
- Economic growth decoupled from resource use
- Investing in environmentally friendly technologies
- Supporting industry to innovate
- Rolling out cleaner, cheaper, and healthier forms of private and public transport.
- Decarbonising the energy sector.
- Ensuring buildings are more energy efficient; and
- Working with international partners to improve global environmental standards (EC, 2019)⁵⁴.

The EU will also provide financial support and technical assistance to help those that are most affected by the move towards the green economy. It will help mobilise at least €100 billion over the period 2021-2027 in the most affected regions.

• 2030 Climate and Energy Framework

The 2030 climate and energy framework includes EU-wide targets and policy objectives for the period from 2021 to 2030, in line with the European Green Deal. The key targets for 2030 include:

- At least 40% cuts in greenhouse gas emissions (from 1990 levels)
- At least 32% share for renewable energy

⁵⁴ EPA, Met Éireann and the Marine Institute (2020) The Status of Ireland's Climate 2020. Available at: <u>Climate Change | Environmental Protection Agency (epa.ie)</u>

At least 32.5% improvement in energy efficiency.

The 40% greenhouse gas target is implemented by the EU Emissions Trading System (ETS), the Effort Sharing Regulation with member states' emissions reduction targets and the Regulation on land use, land use change and forestry outlined within the 2030 Climate and Energy Framework. In this way, all sectors will contribute to the achievement of the 40% target by both, reducing emissions and increasing removals.

Under the governance system, member states are required to adopt integrated national energy and climate plans (NECPs) for the period 2021-2030 and national long-term strategies and ensure consistency between these strategies and their NECPs (EC, 2014)⁵⁵.

Climate Action Plan 2024

The Climate Action Plan 2024 (CAP24) is the third annual update to Ireland's Climate Action Plan. The CAP 24 was approved by government in December 2023 and was subject to SEA and AA.

The CAP 2024 builds upon the CAP 2023 by refining and updating the measures and actions required to deliver the carbon budgets and sectoral emissions ceilings. The CAP 24 provides a roadmap for taking the necessary action to halve Ireland's emissions by 2030 and reach net zero by no later than 2050, as committed to in the Climate Action and Low Carbon Development (Amendment) Act 2021. In order to do so, the draft Joint LAP sets out the actions the government intends to take across sectors such as electricity, transport, built environment, industry and agriculture. Some of the targets set out by the draft Joint LAP include the following:

- By 2030, reduce greenhouse gas (GHG) emissions from the public sector by 51%; and achieve a 50% improvement in energy efficiency in the public sector.
- By 2025, achieve the buildings and retrofitting targets laid out in the Public Sector Climate Action Mandate and in chapter 14 of this Climate Action Plan; and implement and review the Public Sector Climate Action Mandate annually⁵⁶ (DECC, 2024).

5.7 Archaeology, Architectural and Cultural Heritage

5.7.1 Baseline

Built heritage is addressed in this report under the following headings:

- Archaeological Heritage
- Architectural Heritage; and
- Vernacular Heritage

KCC published the County Kildare Heritage Plan 2019-2025 in 2019. MCC also published the Meath Heritage Plan in 2015. The aim of the Kildare Heritage Plan is to "recognise by all, the value and opportunity of Kildare's unique heritage resource and to manage, conserve and protect it, in partnership, for present and future generations." The aim of the Meath Heritage Plan is to "increase awareness, understanding and appreciation of Meath's heritage and promote best practice in its management for enjoyment by all".

The Heritage Plans set out a range of strategic objectives and aims to be implemented over the draft Joint LAP period. The strategic objectives and aims of both the Kildare and Meath Heritage Plans will be taken into consideration in the preparation of the draft Joint LAP.

⁵⁵ EC (2014) The 2030 climate and energy framework. Available at: The 2030 climate and energy framework - Consilium (europa.eu)

⁵⁶ DECC (2024) Climate Action Plan 2024. Available at: gov - Climate Action Plan 2024 (www.gov.ie)

Built heritage refers to all man-made features, buildings or structures in the environment. This includes a rich and varied archaeological and architectural heritage to be found throughout the countryside and within the historic towns and villages of the county.

The architectural and archaeological heritage of a town, village or place contributes greatly to the distinctive character of each local area.

5.7.1.1 Archaeological Heritage

A record of archaeological heritage is maintained on the 'Record of Monuments and Places' which was established under Section 12 of the National Monuments (Amendment) Act, 1994 (No. 17 of 1994). Structures, features, objects, or sites listed in this Record are known as Recorded Monuments.

The Record of Monuments and Places (RMP) comprises a list of recorded monuments and places and accompanying maps on which such monuments and places are shown for each county.

The National Monuments Service of the Department of Housing, Local Government and Heritage will advise on the protection applying to any particular monument or place under the National Monuments Acts by reason of it being entered in the Record of Monuments and Places and should be consulted if there is any doubt as to the status of the site.

According to the Archaeological Survey of Ireland (ASI)⁵⁷ online database there are approximately 29 Recorded Monuments within the draft Joint LAP study area, as listed in Table 5.5. National monuments in the vicinity of the draft Joint LAP study area have been illustrated in Figure A16 in Appendix A.

An archaeological monument is protected in one of four ways:

- It is recorded in the RMP.
- It is registered in the Register of Historic Monuments (RHM)
- It is a national monument subject to a preservation order (or temporary preservation order); or
- It is a national monument in the ownership or guardianship of the Minister for Housing, Local Government and Heritage or a Local Authority. Different levels of protection apply to a monument depending on which of the four categories it falls under.

Any person intending to carry out works at or in relation to a Recorded Monument, or within the zone of Archaeological potential, must give the National Monuments Section of the Department of Housing, Local Government and Heritage two months' notice in writing.

Table 5.5 Recorded Monuments within Maynooth Joint LAP study area Source: 57

SMR No	Townland	Class
KD005-011001	Maynooth	Possible Enclosure
KD005-011002	Maynooth	Road - road/trackway
KD005-015001	Maynooth	House - prehistoric
KD005-015002	Maynooth	House - early medieval
KD005-015003	Maynooth	House - early medieval
KD005-015004	Maynooth	Building
KD005-015005	Maynooth	Well
KD005-015006	Maynooth	Well

 $^{^{57}}$ Archaeological Survey of Ireland (ASI) online database at $\underline{www.archaeology.ie}$

SMR No	Townland	Class
KD005-010	Maynooth	Ring-ditch
KD005-012	Maynooth	Possible Field System
KD005-013	Collegeland	Architectural Fragment
KD005-014	Maynooth	Architectural Fragment
KD005-015	Maynooth	Castle - Anglo-Norman masonry castle
KD005-016	Maynooth	Church
KD005-021	Laraghbryan East	Possible Ecclesiastical Enclosure
KD005-023	Maynooth	Field boundary
KD005-036	Laraghbryan East	Enclosure
KD005-037	Laraghbryan East	Barrow - ring-barrow
KD005-041	Laraghbryan East	Enclosure
KD005-009001	Laraghbryan East	Ecclesiastical site
KD005-009002	Laraghbryan East	Church
KD005-009003	Laraghbryan East	Graveyard
KD005-008	Laraghbryan East	Castle Possible
KD006-013-	Ritual Site – holy well	Carton Demesne
KD010-008-	Field System	Moneycooly
KD010-008	Moneycooly	Field System
KD010-040	Moneycooly	Burial ground
KD011-061	Moneycooly	Furnace
ME053-001	Moygaddy	Castle - tower house

5.7.1.2 Archaeological and Built Heritage in relation to Climate Change and SFRA, and Landscape and Visual Sensitivity

Archaeological heritage on and surrounding the draft Joint LAP study area requires consideration in relation to action on climate change and SFRA. The Rye River and Royal Canal have an abundance of underwater archaeological heritage that requires protection and merits promotion.

Where flood relief measures may be proposed each local authority should have regard to the Archaeological Guidelines for Flood Relief Schemes (Draft document, DHLGH 2022).

The protection and enhancement of archaeological and built heritage requires consideration of the setting and amenity of heritage sites, structures, and monuments. The interactions between archaeological and built heritage and landscape and visual sensitivity of surrounding areas is also an important consideration.

5.7.1.3 Architectural Heritage

As defined by the Heritage Act, 1995, 'architectural heritage' includes all structures, buildings, traditional and designed, and groups of buildings including streetscapes and urban vistas, which are of historical, archaeological, artistic, engineering, scientific, social or technical interest.

The National Inventory of Architectural Heritage (NIAH) is a state initiative under the administration of the Department of Housing, Local Government and Heritage and established on a statutory basis under the provisions of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999.

The purpose of the NIAH is to identify, record, and evaluate the post-1700 architectural heritage of Ireland, uniformly and consistently as an aid in the protection and conservation of the built heritage. NIAH surveys provide the basis for the recommendations of the Minister for Housing, Local Government and Heritage to the planning authorities for the inclusion of particular structures in their Record of Protected Structures (RPS).

Maynooth has an abundance of structures of special architectural, historical, archaeological, artistic, cultural, scientific, social, or technical interest. Such features are contained in the RPS.

According to the database, there are approximately 52 protected structures in Maynooth and Environs. Owners and occupiers of protected buildings are required to ensure that buildings do not become endangered through harm, decay, or damage³⁶.

Protected structures in the vicinity of the draft Joint LAP study area have been illustrated in Figure A17 in Appendix A.

5.7.1.4 Architectural Conservation Areas

The Planning and Development Act 2000 (as amended) places an obligation on Local Authorities to include an objective for the preservation of the character of Architectural Conservation Areas (ACAs).

An ACA is a place, area, group of structures or townscape, which is of special architectural, historical, archaeological, artistic, cultural, scientific, social, or technical interest, which contributes to the appreciation of a Protected Structure, and the preservation of whose character is an objective of the CDP. The character of an ACA may include patterns of materials, construction systems or architectural elements that are repeated within the area and give it a sense of harmony, or it may relate to the importance of a number of buildings or structures and the interrelationship of spaces between these.

There is one ACA in Maynooth and it is located in Maynooth Town Centre (it is noted that the ACA is determined at CDP level). Many buildings and structures while not of sufficient merit to warrant individual listing are nevertheless important in the context of their contribution to the streetscape and the character of Maynooth Town Centre.

The ACA in Maynooth includes much of St Patrick's College, Leinster Street, Moyglare Road junction and the entirety of the Main Street itself. KCC seek where appropriate the retention and restoration of the external fabric of buildings not on the RPS within this zone⁵⁸.

5.7.1.5 Vernacular Heritage

Vernacular architecture describes the local regional traditional building forms and types using indigenous materials, and without grand architectural pretensions, i.e., the homes and workplaces of the ordinary people built by local people using local materials. This is in contrast to formal architecture, such as the grand estate houses of the gentry, churches and public buildings, which were often designed by architects or engineers.

The majority of vernacular buildings are domestic dwellings. Examples of other structures that may fall into this category include shops, outbuildings, mills, limekilns, farmsteads, forges, gates, and gate piers.

5.7.1.6 Industrial Heritage

Industrial heritage plays a very important role in the county with canals, distilleries and forges making a strong contribution to the character of places. The advent of the railways added to both Kildare and Meath's industrial architectural heritage. KCC and MCC are committed to seeking to protect buildings and features of industrial heritage in situ and their related artefacts and plant.

⁵⁸ KCC (2013. Maynooth LAP 2013-2019 Part B. Available at: <u>2. KCCMaynoothLAPPartB Final.pdf (kildarecoco.ie)</u>

5.7.1.7 Local History

There are a number of cultural/historical attractions in the Maynooth area, as follows:

- National Science and Ecclesiology Museum at St Patrick's College Maynooth
- Golf Museum Golfing Union of Ireland, National HQ, Carton Demesne, County Kildare; and
- Maynooth Castle, Main Street, Maynooth, which is managed by the Office of Public Works.

5.8 Landscape and Visual

5.8.1 Baseline

5.8.1.1 Landscape

The landscape of County Kildare comprises a central plain bounded to the east by the Kildare uplands, which lie at the foothills of the Wicklow and Dublin Mountains. The Curragh, the boglands of north-west Kildare and the fertile lowlands of the south all comprise part of the central plain. The plain lands are interrupted by two groups of isolated hills, the Chair of Kildare and the Newtown Hills. The location of these hills within the central plain has a considerable impact on the landscape of Kildare. Inland waters comprise the River Liffey, River Barrow, River Slate, River Boyne, Royal Canal, Grand Canal and Rye Water River that traverse the county, providing important landscape features.

The draft Joint LAP study area is located in the north-eastern part of County Kildare, with its northern section located in County Meath. A Landscape Character Assessment (LCA) of both counties was prepared as part of the respective Kildare and Meath CDPs. The LCA focuses on characterisation i.e., the discernment of the character of the landscape based on its land cover and landform, but also on its values, such as historical, cultural, religious and other understandings of the landscape. The purpose of the LCA was to assist in the development of the landscape objectives within each CDP.

The draft Joint LAP study area is located in a landscape character area 'Northern Lowlands', characterised by "generally flat terrain and open lands with regular (medium size) field patterns."

This low-lying landscape nature and low vegetation allows for extensive visibility and long-distance views within the landscape. The landscape character area in which the Maynooth Environs are located is the 'South East Lowlands' in County Meath, where the predominant landscape is rolling lowland⁵⁹ (MCC, 2021).

In order to inform the LCA, a landscape sensitivity map was prepared. Landscape sensitivity is a measure of the ability of the landscape to accommodate change or intervention without suffering unacceptable effects to its character and values. It is determined using the following factors: slope, ridgeline, water bodies, land use and prior development⁵⁹, ⁶⁰.

The sensitivity of the LCAs that Maynooth and Environs cover and is surrounded by have been listed in Table 5.6, as adapted from Table 13.1 in (KCC, 2023)⁶⁰ and also (MCC, 2021)⁵⁹.

Table 5.6 Sensitivity of Landscape Character Areas that Maynooth and Environs Joint LAP cover and surround Source: $^{59},^{60}$

Sensitivity of Principal Landscape Character Assessment (Dominant Sensitivity Outlined)	Class 1 Low Sensitivity	Class 2 Medium Sensitivity	Class 3 High Sensitivity	Class 4 Special Sensitivity	Class 5 Unique Sensitivity
Northern Lowlands	Class 1				
South East Lowlands		Class 2			

⁵⁹ MCC (2021) Meath County Development Plan – Landscape Character Assessment. Available at: A.05 Landscape Character Assessment | Meath County Council Online Consultation Portal

⁶⁰ KCC (2023) CDP – Chapter 13 Landscape, Recreation and Amenity. Available at: <u>13 - Landscape, Recreation & Amenity | Kildare County Council (kildarecoco.ie)</u>

Sensitivity of Principal Landscape Character Assessment (Dominant Sensitivity Outlined)	Class 1 Low Sensitivity	Class 2 Medium Sensitivity	Class 3 High Sensitivity	Class 4 Special Sensitivity	Class 5 Unique Sensitivity
Sub-ordinate Landscape Areas					
The River Liffey				Class 4	

The sensitivity of the Northern Lowlands are deemed to be of 'Low-Sensitivity' which is defined as an area 'with the capacity to generally accommodate a wide range of uses without significant adverse effects on the appearance or character of the area'. The South East Lowlands are deemed to be of 'Medium Sensitivity' which is defined as an area 'with the capacity to accommodate a range of uses without significant adverse effects on the appearance or character of the landscape having regards to localised sensitivity factors'. The River Liffey is deemed 'Special Sensitivity' which is defined as 'Significant adverse effects on the appearance or character of the landscape having regard to prevalent sensitivity factors' ⁵⁹, ⁶⁰.

The CORINE Land Cover (CLC) inventory is a Pan-European land-use and landcover mapping programme. It supplies spatial data on the state of the European environmental landscape and how it is changing over time. CORINE Land Cover mapping classifies land cover under various headings. The main land-use in the draft Joint LAP area is discontinuous urban fabric for the town Maynooth itself and the Maynooth Environs has been classed as pastures (Pan Europe, 2018)⁶¹.

Discontinuous urban fabric comprises residential areas around the edge of urban district centres, and certain urban districts in rural areas. Pastures are dense grass cover of floral composition, dominated by graminaceae which are not under a rotation system. They are mainly used for grazing but may be harvested mechanically.

Refer to Figure A18 in Appendix A for CORINE Landcover Data in the vicinity of Maynooth and Environs.

5.8.1.2 Visual

Scenic routes and protected views consist of important and valued views and prospects within the county. The Kildare CDP and the Meath CDP outline all the views and prospects in each respective county which have been identified as being worthy of protection.

Several viewpoints and scenic routes have been identified from the LCAs. There are three scenic viewpoints in the draft Joint LAP study area (RC6, RC7 and RW4) and one on the boundary (RC8).

RC6 and RC7 are views along the Royal Canal at Mullen Bridge and Bond Bridge respectively. RC8 on the western boundary is another view from the Royal Canal at Jackson's Bridge. RW4 is a view of the River Rye Water from Kildare Bridge in Carton Demesne.

No Scenic Routes have been identified in the draft Joint LAP study area.

Protected Views and Prospects in the vicinity of the draft Joint LAP study area have been illustrated in Figure A19 in Appendix A.

5.9 Material Assets

5.9.1 Baseline

The term 'Material Assets' refers to all infrastructure and local services including (inter alia); transportation, water supply, wastewater treatment and discharge, waste management services, electricity supply, telecommunications. Material assets as they relate to the draft Joint LAP study area have been detailed as follows.

⁶¹ Pan Europe (2018) Corinne Land Cover CLC 2018. Available at: CLC 2018 — Copernicus Land Monitoring Service

5.9.1.1 Water Supply

Uisce Éireann is responsible for all aspects of public water services planning, delivery and operation and KCC, as an agent of Uisce Éireann continues to provide certain water services functions for County Kildare⁶² (KCC, 2023). Maynooth is supplied by the North-East Regional Water Supply Scheme from the Leixlip Water Treatment Plant.

Water from the waterworks at Leixlip is distributed to Leixlip, Celbridge, Maynooth, Straffan, Ardclough, Rathcoffey and surrounding areas via the Leixlip Regional Scheme. Kildare County Council also delivers groundwater from wellfields at Monasterevin, Rathangan and Athy which is blended with Poulaphouca water prior to distribution. There are also a number of small public water supplies to small rural communities. Maynooth is currently served by the existing Ballygoran Reservoir, via the Leixlip Water Treatment Plan⁴⁰. Water supply to the Maynooth Environs will be from the network in County Kildare.

Uisce Éireann, in partnership with KCC, has recently improved the water network in Maynooth Town to provide a more reliable water supply. Uisce Éireann put these works in place to safeguard the health and well-being the public and to ensure the continuity of drinking water and wastewater services in Maynooth. The project consisted of constructing a new trunk water main along Parson Street and Mill Street, in Maynooth in April 2020. These works were carried out as part of Uisce Éireann's National Leakage Reduction Programme⁶³.

A Remedial Action List (RAL) of problematic drinking water supplies is released by the EPA on a quarterly basis. The Remedial Action list is a public record for the supplies known to be at risk and where the EPA is requiring Uisce Éireannto take corrective action. The EPA has instructed Uisce Éireann to submit an action programme for the improvement of each of these supplies and has initiated enforcement action where action programmes were not being prepared or were not prepared to the satisfaction of the EPA. This includes issuing legally binding Directions requiring specific work to be carried out.

The Ballygoran Reservoir, via the water treatment plant at Leixlip drinking water supply which serves Maynooth was not included on the Remedial Action list for Q4 of 2023 (EPA, 2024)⁶⁴.

5.9.1.2 Wastewater Treatment

The continued improvement of wastewater drainage infrastructure within Maynooth is essential for the development of the town as a Metropolitan Key Town. Deficiencies in wastewater treatment services act as a barrier to economic development and population growth⁶².

Maynooth is served by the Leixlip Wastewater Treatment Plant (WWTP) which also serves the towns of Kilcock, Celbridge, Leixlip and Straffan. The upgrade of the Lower Liffey Valley Regional Sewerage Scheme at present, is in progress and will improve the network capacities in Maynooth.

The upgrade to the existing wastewater network is required in the Greater Dublin Area to facilitate existing and future development in the area and to ensure a resilient wastewater network ⁶⁵. Wastewater from the Maynooth Environs study area will be discharged into the wastewater network in Maynooth (County Kildare).

The Urban Wastewater Treatment Directive (91/271/EEC) (amended by Directive 98/15/EEC) aims to protect the environment from the adverse effects of wastewater discharges by ensuring that wastewater is appropriately treated before it is discharged to the environment. The treatment of such is essential in order to

⁶² KCC (2023) Kildare County Development Plan – Chapter 6. Available at: Ch 6 final.pdf (kildarecoco.ie)

⁶³ Irish Water (2020) Maynooth Town Trunk Water Main Project. Available at: Maynooth Town Trunk Water Main Project | Project | Irish Water

⁶⁴ EPA (2024) Remedial Action List. Available at: remedial action list epa - Search (bing.com)

⁶⁵ Irish Water (2022) Lower Liffey Valley Regional Sewerage Scheme – Leixlip Transfer Pipeline and Wastewater Network Upgrade. Available at: Lower Liffey Valley Regional Sewerage Scheme Network Upgrade | Our Projects | Irish Water

meet the requirements of the WFD. The Leixlip WWTP is compliant with all wastewater regulations and treatment standards (EC, 2017)⁶⁶.

5.9.1.3 Waste Management Services

Waste and recycling bin collection services have been privatised in County Kildare for the past 15 years. The following waste collectors currently provide these services:

- Advanced Environmental Waste Solutions (AES).
- Mahon's Recycling.
- Oxigen.
- Ray Whelan.
- Thorntons.

County Meath is also well served with a wide range of waste facilities which will serve the Maynooth Environs, including:

- Waste transfer stations.
- Waste to Energy facility, landfill.
- A Construction and Demolition (C&D) waste facility; and
- A network of recycling facilities are supported by MCC, in particular Navan, Trim, Kells and Dunboyne are served by recycling centres. The remainder of County Meath is served by a network of bring banks which accept a broad diversity of materials⁶⁷ (Brady Shipman Martin, 2019).

The Waste Facility Permit and the Certificate of Registration Database is a register for waste facility permits and certificates of registration issued by local authorities under the Waste Management (Facility Permit and Registration) Regulations, S.I. No. 821 of 2007, as amended.

According to the Local Authority Waste Facility Register, there are no licensed waste facilities within the draft Joint LAP study area.

The following waste infrastructure is in place in the vicinity:

- Compost Facility in Carbury (Carbury Mushrooms);
- Kilberry (Bord na Mona);
- Non-Hazardous Waste Landfills at Drehid (Bord na Mona); and
- Waste Transfer Stations at Straffan and Celbridge.

In Maynooth town, there are multiple recycling facilities for glass and cans including examples such as, at Aldi, Tesco and at the council owned carpark beside the Glenroyal Hotel. A civic amenity site (large recycling centre) is planned for Celbridge which will cater for the northeast of the county.

5.9.1.4 Transport Infrastructure and Facilities

The designation of Maynooth as being a Metropolitan Key Town reflects Maynooth's strategic location on the Dublin to Sligo railway line, the M4 Motorway and Royal Canal, along with the presence of Maynooth University. Accordingly, the future development of Maynooth is not just important at a county level but also

⁶⁶ EC (2017) Urban Wastewater Leixlip WWTP. Available at: <u>Leixlip Waste Water Treatment Plant - history | European Commission urban waste water website: Ireland (uwwtd.eu)</u>

⁶⁷ Brady Shipman Martin (2019) Preliminary Draft Meath County Development Plan (Draft CDP) 2020- 2026 Strategic Environmental Assessment (SEA) Environmental Report. Available at: Strategic Environmental Assessment (SEA) Environmental Report. Available at: Strategic Environmental Assessment (SEA) Environmental Report. Draft Meath. (SEA) Environmental Report. (SEA) Environmenta

at a regional scale, in supporting the growth of the capital. As a Metropolitan Key Town, Maynooth has been identified as having the capacity and future growth potential to accommodate above average growth in the region.

As part of the MASP contained in the RSES, Maynooth has been allocated a population increase of up to 10,000 persons over the period to 2031, provided there is the necessary investment in employment creation, services, amenities and sustainable transport⁶⁸ (KCC, MCC 2022). This is in addition to the housing/population allocations given to the town under the respective CDPs of Kildare and Meath.

Maynooth is approximately 24 km from Dublin. It is connected to Dublin by a commuter rail service, mainline railway, provincial and Dublin bus services. It is well connected to the road network by the M4 Motorway linking Dublin to the west and northwest⁴⁰.

The Greater Dublin Area Transport Strategy 2022-2042 provides for a second train station to be constructed to the west of Maynooth town, the extension of DART services will be facilitated and both stations in Maynooth are intended to be served by DART+ West once constructed in order to meet growing populations in the area⁶⁹ (NTA, 2022).

The Greater Dublin Area Transport Strategy (TS) 2022-2042 also outlines the following for Maynooth with DART+ West:

- Electrification of the Maynooth line from City Centre to Maynooth (40km).
- City Centre enhancements at Connolly.
- The construction of a new DART depot facility west of Maynooth Station.
- Integration with a combined metro / rail stations to be developed at Glasnevin under the MetroLink project to serve both the Maynooth Line and Kildare Line⁶⁹.

A Maynooth and Environs Area Based Transport Assessment has been prepared by AECOM to oversee the transportation improvements necessary for Maynooth and Environs Joint LAP study area⁷⁰ (AECOM, 2022). The strategy provides for:

- Measures to improve walking, cycling, public transport, roads, and parking in Maynooth and its
 environs.
- Focuses on improving conditions for pedestrians, cyclists, and public transport users.
- Measures from the Area Based Transport Assessment to be incorporated into the Draft Joint LAP for Maynooth and Environs⁷⁰.

The rapid population expansion in Maynooth has increased pressure on the town's amenities, transport infrastructure and parking supply. Car dependency is relatively high, which presents a key challenge in the promotion of sustainable travel.

However, the NTA's Greater Dublin Area Transport Strategy 2022-2042 and the Maynooth and Environs Area Based Transport Assessment both aim to improve local transportation amongst all areas of Maynooth and Environs. Both transport strategies aim to ensure long-lasting transport improvements in Maynooth to ensure growing use of sustainable travel modes for work, education, business, and visitor trips, as car dependency is the area is relatively high.

In the 2022 Census, it was recorded that 30% of the population in the town of Maynooth drove to work, school, college or childcare, and a further 13.3% recorded themselves as being a car passenger when

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⁶⁸ MCC, KCC (2022) Maynooth and Environs LAP - Pre-draft Public Consultation Issues Paper. Available from: KCC

⁶⁹ National Transport Authority (2022) Transport Strategy for the Greater Dublin Area 2022-2042. Available at: <u>12. Public Transport (Bus, Light & Heavy Rail)</u> | National Transport Authority Consultation Portal

⁷⁰ AECOM (2022) Maynooth Transport Strategy. Available at: <u>Maynooth Transport Strategy - Phase 1 Consultation Summary Document.pdf</u> (<u>kildarecoco.ie</u>)

travelling to work, school, college or childcare⁷¹. A large proportion of the population recorded themselves to travel by foot at 21%.

At present, the R148 Leixlip Road is the main east-west access road through Maynooth. The main north-south route is the Moyglare Road which attaches to both Parson Street and the R405. The R405 links in with the R406 to provide southern and south-eastern movements from Maynooth. The main access road within the east of the Maynooth Environs is the R157.

The M4 Motorway has taken significant volumes of through traffic out of Maynooth Town Centre and provides a well-connected road network to Dublin and to the northwest. The M4 Motorway is located within the south of the draft Joint LAP study area.

Maynooth is served by several bus services and Maynooth Train Station is also located on a main line to Dublin. The train station is served by Irish Rail, whereby, the services provided include: the Commuter Service, Maynooth Service and the Sligo/Longford Service⁷² (Irish Rail, 2022). The town centre has a large walking catchment area and walking statistics for Maynooth are good however, improvements can still be made as the majority of Maynooth residents are highly car dependent.

5.9.1.5 Electricity Supply

County Kildare's current energy supply is provided from a number of sources including the ESB's Liffey and Poulaphouca hydroelectric stations and a natural gas pipeline from Cork to Dublin which passes through the east of the county. The existing gas network within the county has capacity for connections and local distribution network extensions.

5.9.1.6 Telecommunications

The County is served by a number of telecom providers, each using various forms of technology including fibre optic and wireless technology.

Two significant mast sites are located within the county, at Cappagh and Dunmurry Hill, both of which are primary collection masts for telecoms traffic from the west of the country to Dublin.

5.10 Transboundary Issues

No direct transboundary environmental effects are anticipated as a result of the implementation of the draft Joint LAP.

5.11 Likely Evolution of the Baseline Environment in the Absence of the Implementation of the draft Joint LAP

In the absence of the implementation of the draft Joint LAP, the baseline environment outlined in Section 5 is likely to continue as follows.

5.11.1 Population and Human Health

In the absence of the draft Joint LAP, the Population & Human Health baseline environment is likely to evolve as follows:

- Ireland's NPF projects that Ireland will be home to an additional one million people by 2040, projected population increases will increase pressure on land use.
- The extent of potential health benefits correlated with increased active travel objectives incorporated into
 the draft Joint LAP may not be realised and similarly, the reduced emissions and improved air quality
 associated with these objectives may not be realised.

⁷¹ CSO (2022) ED – Maynooth Commuting. Available at: Census Local Statistics interactive mapping app | CSO Ireland

⁷² Irish Rail (2022) Maynooth. Available at: <u>Ireland rail travel information - Iarnród Éireann - Irish Rail</u>

- The potential for economic growth aided by increased development and re-development within the Joint LAP study area would be limited to the existing levels.
- The number of people employed in the draft Joint LAP study area would potentially remain constant.

5.11.2 Biodiversity

In the absence of the draft Joint LAP, the biodiversity baseline environment is likely to evolve as follows:

- Potential impacts will continue to arise through climate change and pollution, these impacts may continue to alter species and habitat ranges.
- Biodiversity levels in the draft Joint LAP study area will continue to be protected, conserved and enhanced by Maynooth's Biodiversity Action Plan 2023-2028, the Kildare County Biodiversity Plan and Meath Biodiversity Action Plan 2015-2020. However, likely to a lesser extent than what would be facilitated through the implementation of the draft Joint LAP.

5.11.3 Land and Soils

In the absence of the draft Joint LAP, the land and soils baseline environment is likely to evolve as follows:

• In the absence of implementing actions identified in the Area Based Transport Assessment and the draft Joint LAP, connecting the Environs to Maynooth would potentially be more challenging. The Environs comprise of zoned lands located on the northern periphery of Maynooth town.

5.11.4 Water

In the absence of the draft Joint LAP, the water baseline environment is likely to evolve as follows:

- Potential impacts to water quality in the draft Joint LAP study area may continue to arise as a result of climate change; and
- Any current issues relating to water quality would potentially remain constant.

5.11.5 Air Quality and Climate (including Noise)

In the absence of the draft Joint LAP, the Air Quality & Climate (including Noise) baseline environment is likely to evolve as follows:

- Potential improvements on local air quality correlated with increased active travel objectives may not be realised. Similarly, the levels of reduced emissions and improved air quality associated with these objectives may not be realised.
- In the absence of the draft Joint LAP, there would potentially be less use of machinery and or construction works, compared to existing trends in the Joint LAP study area which has potential to result in positive impacts to air quality and noise.
- In the absence of the draft Joint LAP, impacts of climate change and pollution will continue to impact air quality and climate, the extent of these impacts may have been reduced through the facilitation of increased charging infrastructure, green energy usage or active travel improvements outlined in the draft Joint LAP. However, in the absence of the draft Joint LAP local pollution and air quality may remain constant.
- In the absence of the draft Joint LAP, mitigation of the impacts of climate change through potential CO² reduction may not be realised.

5.11.6 Archaeological, Architectural and Cultural Heritage

In the absence of the draft Joint LAP, the Archaeological, Architectural and Cultural Heritage baseline environment is likely to evolve as follows:

• Legislation and guidance at both international and national and local level afford both the architectural and archaeological elements a high level of protection and will continue to do so; and

• No further variation is likely in the evolution of the baseline environment in the absence of the draft Joint LAP in relation to, the archaeological, architectural and cultural heritage baseline environment.

5.11.7 Landscape and Visual

In the absence of the draft Joint LAP, the Landscape and Visual baseline environment is likely to evolve as follows:

• Without the draft Joint LAP, the landscape and visual appearance around the Joint LAP study area would potentially remain as it is at the existing baseline.

5.11.8 Material Assets

In the absence of the draft Joint LAP, the Landscape and Visual baseline environment is likely to evolve as follows:

- In the absence of the Joint LAP, all infrastructure and local services would potentially remain constant, and it is likely that the active travel potential of Maynooth and Environs may not be fully realised; and
- In the absence of the draft Joint LAP, transport infrastructure is likely to continue to be developed and enhanced in line with the Greater Dublin Area Transport Strategy 2022-2042 and the Maynooth and Environs Area Based Transport Assessment.

6. SEA Objectives, Targets, and Indicators

6.1 Introduction

The SEA is designed to assess the potential environmental effect of the policies of the draft Joint LAP against the environmental baselines established. The policies and associated recommendations are assessed against a range of established environmental objectives and targets. Indicators that are recommended in the SEA are utilised over the lifetime of the draft Joint LAP to quantify the level of impact that the policies and recommendations have on the environment.

6.2 Objectives and Targets

Strategic Environmental Objectives (SEOs) are methodological measures against which the environmental effects of the draft Joint LAP can be assessed. If complied with in full, SEOs would result in an environmentally positive, or neutral impact from realisation of the draft Joint LAP.

The SEOs are set out under a range of topics and are used as standards against which the provisions of the draft Joint LAP can be evaluated in order to help identify areas in which potential significant adverse impacts may occur. SEOs are distinct from the objectives of the draft Joint LAP and are developed from international and national policies which generally govern environmental protection objectives. Such policies include those of various European Directives which have been transposed into Irish law and which are intended to be implemented across the country.

The SEA Directive requires that the evaluation of the draft Joint LAP be focused upon the relevant aspects of the environmental characteristics of areas likely to be significantly affected. In compliance with this requirement the SEA will focus upon the most relevant aspects of the environmental characteristics.

The SEOs are linked to indicators which can facilitate monitoring the environmental effects of the draft Joint LAP, as well identifying targets which the draft Joint LAP can help work towards.

6.3 SEA Indicators

The assessment of aims and commitments with respect to the Environmental Objectives and Targets is required to be measurable. The Environmental Indicators need to be capable of the following:

- Describing trends in the baseline environment
- Demonstrating the likely significant effect of the implementation draft Joint LAP
- Being used in a monitoring programme
- Providing an early warning of significant unforeseen adverse effects
- Prioritising key environmental effects; and
- Ensuring the number and range of environmental indicators are manageable in terms of time and resources.

Strategic Environmental Objectives, Targets and Indicators for the draft Joint LAP have been listed in Table 6.1.

Table 6.1 Strategic Environmental Objectives, Targets, and Indicators for the draft Joint LAP

Environmental Component	Strategic Environmental Objective	Targets	Indicators
Population and Human Health	 Protect, enhance and improve people's quality of life based on high quality residential, community, educational, working and recreational environments and on sustainable travel patterns. To protect human health from hazards or nuisances arising from incompatible land uses/developments. Provision of green spaces for amenity and recreational uses. 	1. As follows: - Minimise population exposure to high levels of noise, vibration, and air pollution. - Increase modal shift to public transport and co-ordinate land use and transportation policies. - Improve access to recreation opportunities, e.g. increase in the number of green spaces and amenities available to the public. 2. No spatial concentrations of health problems arising from environmental factors and or any new development that may occur as a result of the draft Joint LAP. 3. As follows: - Increase in the number of green spaces and amenities available to the public. - Appropriate enhancement and presentation of heritage resources for local communities.	 As follows: Noise and dust monitoring data from any developments taking place during the lifetime of the draft Joint LAP. Statistics on access to sustainable modes of transport. Number of new and or improved recreational facilities and or routes related to the draft Joint LAP. Perceived health/disturbance to the local community. As follows: Number of new and or improved recreational facilities and or routes related to the draft Joint LAP. Level of enhancement and presentation of heritage resources within the draft Joint LAP study area and the number of people visiting heritage resources within the draft Joint LAP study area.

Environmental Component	Strategic Environmental Objective	Targets	Indicators
Biodiversity	 Protect, conserve, enhance where possible and avoid loss of diversity and integrity of the broad range of habitats, species, and wildlife corridors. To achieve the conservation objectives of European Sites (SACs and SPAs) and other sites of nature conservation. Conserve and protect other sites of nature conservation including NHAs, pNHAs, National Parks, Nature Reserves, Wildlife Sanctuaries as well as protected species outside these areas as covered by the Wildlife Act. To minimise and, where possible, eliminate threats to biodiversity including invasive species. Promote green infrastructure networks, including riparian zones and wildlife corridors 	1. As follows: - No loss of diversity and integrity of the broad range of habitats, species, and wildlife corridors, during the lifetime of the draft Joint LAP. - No net biodiversity loss. - No ecological networks or parts thereof which provide significant connectivity between areas of local biodiversity to be lost without remediation (e.g., forest/woodland in Maynooth (mixed and broad leaved), bog, wetlands, improved grassland (for agriculture) and urban/built land). 2. Improve/maintain protection for protected sites and species and protection for important wildlife sites, particularly wildlife corridors. 3. Maintenance of favourable conservation status for all habitats and species protected under the Habitats and Birds Directives. 4. Prevent the introduction of new invasive or alien species. Control/manage existing regulated invasive species. 5. Ensure any new development is setback from rivers or tributaries.	 Presence and status of existing biodiversity in the draft Joint LAP study area. Level of biodiversity gain achieved as a result of the implementation of the draft Joint LAP. Conservation status/habitat quality for all sites and species positively impacted over the lifetime of draft Joint LAP. Level of biodiversity lost as a result of the implementation of the draft Joint LAP. As follows: Location and scale of new development arising as a result of the draft Joint LAP. The number of provisions of green/blue infrastructure within the draft Joint LAP study area.
Land and Soil	 Protect soil quality, particularly against pollution. To maximise the sustainable re - use of the existing built environment, derelict, disused and infill sites (brownfield sites), rather than greenfield sites Minimise the amount of waste to landfill from site 	No incidences of soil contamination through adoption of appropriate environmental protection procedures during any construction, operation or maintenance works during the lifetime of the draft Joint LAP. Preference for development on brownfield site over greenfield/limited and controlled development of greenfield sites. Compliance with the Eastern-Midlands Region Waste Management Plan 2015-2021.	Incidences of spillages/leaks reported during any construction, operation or maintenance works during the lifetime of the draft Joint LAP. Rates of brownfield/greenfield sites and contaminated land reuse and development. Achievement of the Objectives of the Eastern-Midlands Region Waste Management Plan 2015-2021.

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Environmental Component	Strategic Environmental Objective	Targets	Indicators
Water	 No negative impacts on the status of transitional waters, surface waters and groundwater, and to provide no impediment to the achievement of water body objectives under the WFD. Implement appropriate Nature-Based Solutions in the area. No negative impacts on flood risk management activity, and to provide no impediment to the implementation of the Floods Directive. 	 All waterways within the LAP study area to achieve the objectives of the Water Framework Directive and the relevant River Basin Management Plan by 2027, in particular to the area of Maynooth and Environs, the Royal Canal, the Lyreen and the Rye Water River. Prioritising appropriate Nature-Based Solutions within the draft Joint LAP study area. Minimise flood risk through appropriate management of flood vulnerable zones. 	As follows: Status and quality of waterbodies, and status of related species in and surrounding the draft Joint LAP study area. Compliance of surface and ground waters with national and international standards. Number and location of Nature-Based Solutions incorporated into the draft Joint LAP study area. As follows: Number of past flood risk events within the draft Joint LAP study area. Annual costs of damage related to flood events within the draft Joint LAP study area.
Air, Noise and Climate	 To avoid, prevent or reduce harmful effects on human health resulting from emissions to air or noise from any construction/operation of any development occurring with the draft Joint LAP study area. Maintain and promote continuing improvement in air quality and climate through the reduction of emissions in the draft Joint LAP study area. Minimise emissions of greenhouse gases and contribute to a reduction and avoidance of human - induced global climate change. Reduce car dependency within the draft Joint LAP study area by way of an integrated approach to sustainable urban transport. 	 No breaches of legislative standards or limits resulting from any development or activity that may occur as a result of the draft Joint LAP. No breaches in compliance (air quality) from any development and operations related to the draft Joint LAP. As follows: Maintain ambient air quality through reduction of private vehicle usage and the promotion of public transport and active travel. Establish incentives and or increase the number of permissions for renewable energy projects in or around the draft Joint LAP study area. As follows: Provide for increased use of public transport. 	General air quality/ noise monitoring results within and surrounding the draft Joint LAP study area. Traffic, Transport and Vehicular survey data with the draft Joint LAP study area. As follows: Implementation of the draft Joint LAP, which will contribute towards the overall CDPs and facilitate climate action and the relevant targets for emission reductions. Energy consumption, the amount of uptake in renewable options and solid fuels for residential heating. As follows: Travel patterns and the number of modes of active transport within the draft Joint LAP study area. Proportion of journeys made by private fossil fuel-based car compared to previous levels.

Environmental Component	Strategic Environmental Objective	Targets	Indicators
		 Increase number of cycle lanes and pedestrian routes in the draft Joint LAP study area. An increase in the percentage of the population travelling to work or school by public transport or non - mechanical means e.g., implementation of the Greater Dublin Area Transport Strategy and the Maynooth and Environs Area Based Transport Assessment. 	Proportion of people reporting regular cycling / walking to school and work above previous CSO figures.
Archaeological, Architectural and Cultural Heritage	Protect and conserve the cultural heritage including the built environment and settings; archaeological recorded and unrecorded monuments, architectural (Protected Structures, Architectural Conservation Areas, vernacular buildings, materials and urban fabric) and manmade landscape features (e.g. field walls, footpaths, gate piers etc.). To ensure the restoration and reuse of existing uninhabited and derelict structures where possible opposed to demolition and new build (to promote sustainability and reduce landfill).	As follows: Minimise the deterioration and provide maintenance and enhancement of features of archaeological / architectural / cultural significance as a result of the implementation of the draft Joint LAP. No permitted development which involves loss of cultural heritage, including protected structures, archaeological sites, Architectural Conservations Areas and landscape features. As follows: To increase the number of uninhabited and derelict structures that are restored opposed to demolition. Improve appearance of areas with particular townscape character.	As follows: No deterioration of features of archaeological / architectural / cultural significance as a result of the implementation of the draft Joint LAP. 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 draft Joint LAP in line with Kildare and Meath's CDPs. 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 draft Joint LAP in line with Kildare's and Meath's CDPs. As follows: Number of uninhabited and derelict structures within the draft Joint LAP study area. Recorded numbers of non-designated built heritage e.g., vernacular buildings.

Environmental Component	Strategic Environmental Objective	Targets	Indicators
Landscape and Visual	 Conserve and protect valued natural, cultural and built landscapes, views of local value and features including those of geological and aesthetic value. Maintain and where possible enhance landscape quality within the draft Joint LAP study area by minimising visual impacts through appropriate design, assessment and siting. 	Any construction works/development should be planned with cognisance of landscape sensitive areas and protected views/ prospects. As follows: Ensure development is sensitive to its surroundings, e.g., ensure no significant disruption of high landscape values/no significant visual impact from development occurs. Maintain clear urban and or rural distinctions.	No deterioration of landscape or areas with scenic value e.g., landscape sensitive areas, protected views etc., as a result of the implementation of the draft Joint LAP. As follows: Compliance with planning conditions relating to landscape and development. Number of planning permissions granted in areas of high value landscape. Number of permissions granted within 500m of a scenic route.
Material Assets	 Make best use of existing infrastructure and promote the sustainable development of new infrastructure. As follows: Maximise sustainable modes of transport and encourage use of walkways /cycle paths as alternative routes to school, work, and shops. Provide for ease of movement for all road users and to promote development patterns that protect and enhance road safety. Implement the waste hierarchy and encourage reuse/recycling of material wherever possible. To ensure adequate and clean drinking water supplies and to ensure that all zoned lands (existing and proposed) are connected to the public sewer network ensuring treatment of wastewater which meets EU requirements prior to discharge. 	As follows: Improve availability and accessibility of commercially provided facilities and public services. Improve efficiencies of transport, energy and communication infrastructure. Promotion of sustainable transport infrastructure i.e., increased public transport through the implementation of the Maynooth and Environs Area Based Transport Assessment and the Greater Dublin Area Transport Strategy). Increased rates of reuse and recycling on and around the draft Joint LAP study area, and reduced levels of waste being sent to landfill. Upgrading existing water treatment plants and wastewater treatment plants as and if necessary, within the draft Joint LAP study area.	 Location and or level of infrastructure arising as a result of the draft Joint LAP, including renewable energy developments granted planning permission. Travel patterns and the number of sustainable modes of transport within the draft Joint LAP study area. Quantity of waste generated, and levels of waste reused or recycled in the draft Joint LAP study area. Level of capacity upgrades to existing water treatment plants.

7. Alternatives Considered

7.1 Introduction

Article 5.1 of the SEA Directive requires the Environmental to consider "reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme". Annex 1(h) of the SEA Directive, as replicated in paragraph (h) of Schedule 2B of the Planning and Development Regulations 2001, as amended, requires "an outline of the reasons for selecting the alternatives". This suggests that there are three stages to the consideration of alternatives:

- 1. Identify reasonable alternatives; (Refer to Section 7.2)
- 2. Evaluate and compare the alternatives; (Refer to Section 7.3)
- 3. Provide reasons for the choice of preferred alternative(s) (Refer to Section 7.4)

Alternatives will be assessed as part of the draft Joint LAP development process and discussed as follows. As per the best practice guidance within the 'SEA – Guidelines for Regional Assemblies and Planning Authorities' (2022). This guidance document details that 'It is the responsibility of the plan-makers to identify the alternatives to be considered and this should commence early in the SEA process, at the scoping stage. The higher the level/ tier of the plan (such as Regional Spatial and Economic Strategies), the more strategic the alternatives, which are likely to be available, will be. Conversely, lower tier plans, such as Local Area Plans, will be framed in a policy context set by the level(s)/tier(s) above them. However, rational choices identifying reasonable alternatives need to be made – and demonstrated – at the level of each particular plan'.

7.2 Identification of Reasonable Alternative

As discussed in Section 2, the draft Joint LAP is positioned within an overall plan hierarchy under the NPF, the RSES for the Eastern and Midland Region and both the Kildare CDP and the Meath CDP, which predetermine the scope of the strategic alternatives. The following Sections outline the reasonable alternatives identified by KCC throughout the draft Joint LAP process.

7.2.1 Background: Population Growth

Maynooth has been assigned a significant growth allocation from national, regional, and local planning policy.

Under National Policy Objective 68 (NPO 68) of the NPF, the Eastern and Midlands Regional Assembly (EMRA) in consultation with the MASP Implementation Group, allocated an additional population growth target of 10,000 persons to Maynooth in County Kildare up to 2031.

To test the impact of 10,000 additional people on the towns movement network, an Area Based Transport Assessment for the Maynooth and Environs area (MEABTA) was prepared to inform the draft Joint LAP. The MEABTA concluded that notwithstanding the delivery of public transport investment projects (listed below) along with other improvements, the road network of the town would be unable to cope with the volume of traffic generated by 10,000 additional population as well as allocated core strategy growth. A revised growth scenario at 50% allocation (i.e. 5,000 population over the remaining period of the RSES to 2031) indicated that the transport infrastructure of the town would be more likely to have the capacity to accommodate this reduced level of growth over the lifetime of the draft Joint LAP.

Furthermore, the Core Strategy of the Kildare CDP 2023-2029 allocates 997 units to Maynooth for the period 2023-2029. The Core Strategy of the Meath CDP 2021-2027 allocates 1,000 population to the Maynooth Environs for the period 2021-2027.

Having regard to the foregoing, the combined growth allocated to Maynooth and Environs from 2025-2031 as detailed in Chapter 3 of the Joint Plan is 3,670 residential units, or 9,906 persons, over the lifetime of the plan.

7.2.2 Background: Devising Alternative Scenarios

In the context of formulating alternatives, the following policy parameters are of note for Maynooth and Environs:

- Maynooth is a designated Key Town in the Dublin MASP
- Maynooth is a designated Decarbonising Zone through the KCC Local Authority Climate Action Plan 2024-2029.
- At the last census (2022) the town had a population of 17,259 people.
- The RSES identifies specific locations in Maynooth and Environs for regeneration, economic development, residential development and phasing/enabling infrastructure.
- Significant public transport projects are planned for Maynooth including DART+ West, a second train station for Maynooth and BusConnects;
- The population growth and housing target being brought forward in this Joint Plan is 3,670 residential units or 9,906 people. This figure derives from growth allocated by NPO 68/MASP allocation (at 50%), the Kildare County Core Strategy allocation and the Meath County Core Strategy Allocation (as adapted to 2031);
- To achieve a job ratio of 1, an additional 6,568 jobs are required during the lifetime of the Plan.
- The Social Infrastructure Audit carried out to inform the draft Joint LAP indicates that additional schools, open spaces, sports facilities and childcare will be required to cater for the population growth.
- It is an objective of KCC to embed the 10-minute settlement principle in LAPs.
- There is an ACA within the draft Joint LAP study area, which includes much of the town centre and Carton Avenue.
- The town is rich in both Green and Blue Infrastructure, and includes the Rye Water Valley / Carton SAC, the Royal Canal pNHA and Rye Water Valley pNHA; and
- Maynooth University and St Patrick's College are both significant amenity areas within the town.

Having regard to these specific overarching policy parameters and population targets, the following five scenarios were established by KCC, these alternatives are considered to be realistic, reasonable, viable and implementable⁷³, listed and detailed as follows.

- Alternative Scenario 1: Concentric Growth
- Alternative Scenario 2: Northern Growth
- Alternative Scenario 3: Eastern Growth
- Alternative Scenario 4: Western Growth; and
- Alternative Scenario 5: Town centre consolidation, Rail-based development to west, phased and connected development to east and north.

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⁷³ Note: A southern growth scenario was not considered realistic, reasonable, viable or implementable by KCC given the significant distance of lands from the town centre and regional planning policy pertaining to new residential and employment growth.

7.2.2.1 Scenario 1: Concentric Growth

This scenario includes:

- Focus on consolidating the town centre by the development of infill, vacant and underutilised sites; and
- Develop lands sequentially from the town centre outwards, with an emphasis on sites proximate to strategic transport infrastructure, such as the train station and along with planned BusConnects services.

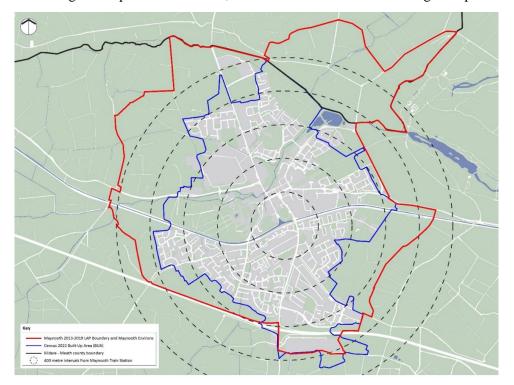


Figure 7.1 Scenario 1: Concentric Growth⁷⁴

Positives identified:

- This approach is in line with national/regional planning policies relating to compact growth, urban renewal, and sequential development.
- This would consolidate the existing urban footprint of the settlement and have environmental benefits in terms of promoting low carbon development, active travel, greater utilisation of existing town centre facilities.
- Leap-frogging can be avoided and urban sprawl prevented.
- Benefit of existing blue and green infrastructure; and
- Opportunity for public realm improvements.

Challenges identified:

- There is limited scope for significant new development within the CSO boundary, due to lack of many brownfield sites within the defined built-up area. A large amount of residential development has taken place in the built-up area of the town since 2016.
- There are town centre sensitivities in terms of the ACA, including Carton Avenue, which will require sensitive development within the area.
- The special character of St Patrick's College grounds and potential impact of new development.

⁷⁴ Note: Concentric circles are drawn at intervals of 400m (a 5-minute walk) from Maynooth Train Station.

- Identified flood risk, particularly on sequential lands to the west of the town centre; and
- There may be issues with sequentially appropriate lands relating to infrastructure delivery.

7.2.2.2 Scenario 2: Northern Growth

This scenario includes:

- A focus on all new development on zoned lands to the north of the town, i.e. Maynooth Environs located in County Meath and adjoining infill lands in County Kildare.
- The development of greenfield sites for new residential, employment and social infrastructure uses; and
- The provision of new roads infrastructure and active travel links from the Maynooth Environs (Moygaddy, County Meath) to Maynooth Town Centre.

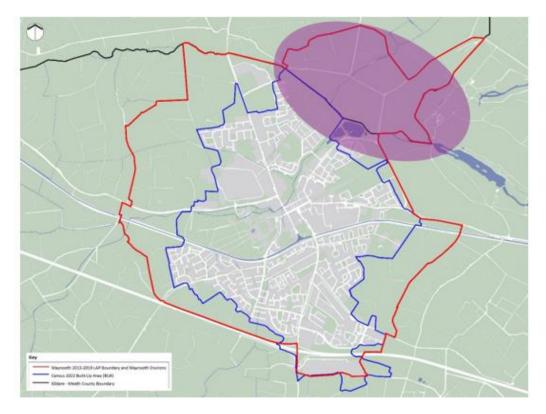


Figure 7.2 Scenario 2: Northern Growth

Positives identified:

- Lands in the Maynooth Environs (Moygaddy, County Meath) are identified in RSES for strategic employment development. Land availability would address the jobs requirement of the Plan;
- Lands are currently zoned in the Meath CDP 2021-2027 for residential, tourism and employment uses; and
- Some lands may be sequentially appropriate and proximate to Maynooth, especially the Education Campus and amenity lands on the Moyglare Road.

Challenges identified:

• The location is removed from Maynooth Town Centre and access to public transport services. Development at this location would be predominantly car-based which would have impacts for low-carbon developments.

- The area is not in a location that has been identified for future public transport services such as DART+ West and BusConnects.
- Proximity to Rye Water Valley / Carton SAC and potential for environmental impacts.
- Areas along the Rye Water River are subject to flood risk.
- There are areas of significant established woodland, scrub, treelines and hedgerows; and
- Servicing infrastructure (Outer Orbital Route) dependent on delivery by MCC / private developers.

7.2.2.3 Scenario 3: Eastern Growth

This scenario includes:

- Focus new development to the east of the town, between the railway/canal corridor and the motorway (i.e. Railpark), towards Leixlip; and
- New development to be accessed from the Maynooth Eastern Ring Road (MERR) which has obtained Part 8 planning permission, and the CPO for the lands has been approved by An Bord Pleanála.

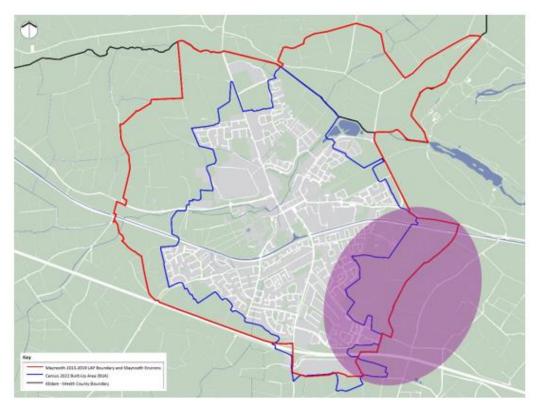


Figure 7.3 Scenario 3: Eastern Growth

Positives identified:

- Good access to bus services from northern and southern portions of lands (Leixlip/Celbridge and future BusConnects routes).
- Good access to Royal Canal Greenway (and by extension Maynooth Train Station).
- No identified flood risk.
- MERR has secured planning permission and CPO has been approved by ABP; and
- Opportunity to implement 10-minute settlement principle at Railpark.

Challenges identified:

- Area removed from town centre services, train station and Maynooth University.
- Dependent on delivery of Maynooth Eastern Ring Road.
- Insufficient land to meet all Core Strategy allocation; and
- Land ownership issues / one-off housing in area.

7.2.2.4 Scenario 4: Western Growth

This scenario includes:

- Focus all new development to the west of the town, i.e. Collegelands and Laraghbryan;
- High density development surrounding planned new train station; and
- Access from planned Maynooth Outer Orbital Route (MOOR).

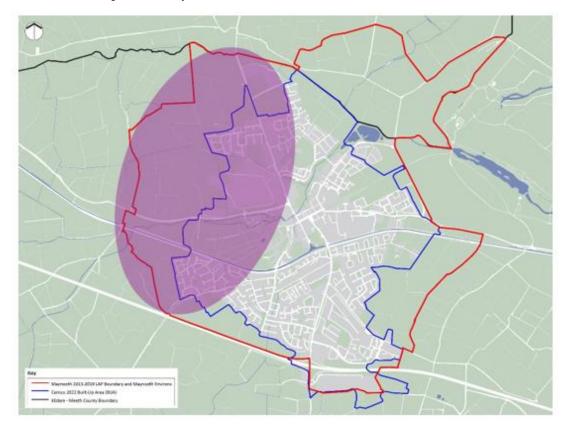


Figure 7.4 Scenario 4: Western Growth

Positives identified:

- New future train station to be located within this area.
- In line with RSES requiring transitional population growth to be focused on high capacity planned/existing public transport corridors.
- Opportunities for compact growth which could integrate low-car and no-car residential developments in proximity to planned DART+ West infrastructure.
- Strategically located next to Maynooth University therefore would facilitate planned growth of the University.
- Most of land under single ownership (St Patrick's College).

- In line with RSES' strategic growth of the town and potential for job creation.
- Potential to deliver 10-minute settlement principle.
- Preferred location for a new urban neighbourhood park; and
- Potential for District Heating opportunities.

Challenges identified:

- Potential impact on town centre.
- Significant servicing infrastructure required.
- Dependent on the delivery of infrastructure (train station / DART+ West Project); and
- Lands to the south of the railway line subject to significant flooding and uncertainties relating to the delivery of future transport infrastructure such as the M4 Maynooth-Leixlip Project.

7.2.2.5 Scenario 5: Town centre consolidation, Rail-based development to west, phased and connected development to east and north.

This scenario includes:

- Focus on consolidating the town centre by development of vacant and underutilised sites for residential and economic development.
- Focusing on developing infill and sequentially appropriate sites within the defined built-up area (BUA) of the town.
- Rail-based development surrounding planned new railway station.
- Development of new communities in Railpark to east of the town accessed from MERR and connected to the town centre.
- Phased development of zoned lands in the Maynooth Environs (Moygaddy, County Meath) with new active travel and green infrastructure links to Maynooth town centre; and
- Phased development of the Maynooth Outer Orbital Route (MOOR) to provide for the realisation of transformative place-based change within the town centre which will facilitate the delivery of a people-centred environment that prioritises sustainable movement transport modes.

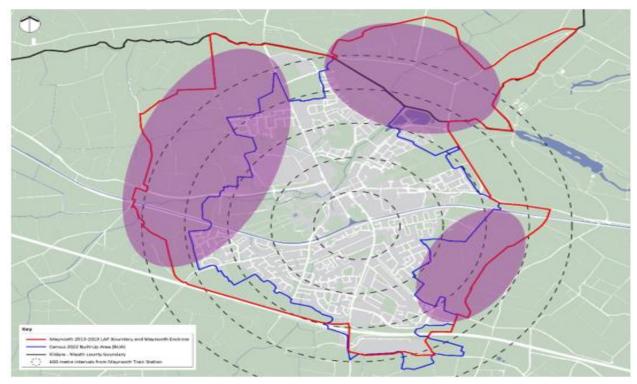


Figure 7.5 Scenario 5: Town centre consolidation, Rail-based development to west, phased and connected development to east and north.

Positives identified:

- This approach is in line with national/regional planning policies relating to compact growth, urban renewal and sequential development.
- In line with RSES requiring transitional population growth to be focused on high capacity planned/existing public transport corridors.
- Aligns with lands in the Maynooth Environs identified in RSES for strategic employment development and lands at Railpark identified for residential purposes.
- Opportunities for compact growth which could integrate low-car and no-car residential developments.
- Opportunities to deliver 10-minute settlement principle at Railpark and Collegeland/Laraghbryan.
- Opportunity to deliver an Urban Neighbourhood Park and Municipal Sports Facility.
- Greater ability to provide social infrastructure at various locations.

7.3 Assessment of Alternatives

The assessment process categorised environmental impacts using the ratings outlined in Table 7.1 which is based on the impact assessment criteria defined by the EPA for environmental impact assessment.

Table 7.1 Impact Ratings

Significance of Effects							
	Neutral						
	Positive						
	Negative						
	Uncertain						

The potential environmental impact is assessed under the following headings:

- Population and Human Health (P&HH)
- Biodiversity (Bio)
- Land and Soil (L&S)
- Water (Wat)
- Air Quality, Climate and Noise (AQ, C &N)
- Archaeology, Architectural and Cultural Heritage (AA&CH)
- Landscape and Visual (L&V); and
- Material Assets (MA)

Table 7.2 Identifies the likely unmitigated impacts associated with each of the alternatives considered.

Table 7.2 Alternatives Assessment

Alternative Number	Description of Alternative Scenario:	Р&НН	Bio	L&S	Wat	AQ,C&N	АА&СН	L&V	MA
Alternative 1	Concentric Growth								
Alternative 2	Northern Growth								
Alternative 3	Eastern Growth								
Alternative 4	Western Growth								
Alternative 5	Town centre consolidation, Rail-based development to west, phased and connected development to east and north.								

This section provides a detailed assessment of those alternatives outlined in Table 7.2.

7.3.1 Scenario 1: Concentric Growth

Scenario 1 relates to the concentric growth of the Maynooth and Environs area, with the view to consolidate the town centre by the development of infill, vacant and underutilised sites. This Scenario also seeks to develop lands sequentially from the town centre outwards, with an emphasis on sites proximate to strategic transport infrastructure.

Scenario 1 involves the consolidation of the existing town centre by encouraging the regeneration and appropriate development of vacant and under-utilised sites in the town. Urban regeneration and redevelopment can substantially contribute to the sustainable development of urban areas and are likely to result in an overall positive impact on the environment. For the purposes of this assessment, it is assumed that development will be occurring predominantly on brownfield sites, in this case environmental components such as biodiversity and land and soils are predicted to result in predominantly neutral impacts.

Overall, positive impacts are anticipated for air quality, climate and noise and population and human health as a result of this Scenario. It is likely to consolidate the existing urban footprint of the settlement and provide environmental benefits in terms of promoting low carbon development, active travel (where lands will be developed sequentially from the town centre outwards, with an emphasis on sites proximate to strategic transport infrastructure), and finally, greater utilisation of existing town centre facilities. However, the high population density in the town centre of Maynooth could put a strain on utilities and services, and it should be ensured that there is sufficient water and wastewater capacity to facilitate any additional residential development. Further to this, there may be issues with sequentially appropriate lands relating to infrastructure delivery. Thus, potential for negative impacts has been assessed for material assets.

Positive impacts are anticipated for landscape and visuals as a result of this Scenario, in that, it presents an opportunity for public realm improvements, including restoration and reuse of currently underutilised and or vacant sites, which is likely to improve the visual appearance of Maynooth Town Centre. However, it must be noted that there are scenic viewpoints located in the town centre, and so any development that is likely to occur in the town centre must be sensitive to these viewpoints.

There may also be potential for negative impacts on archaeological, architectural and cultural heritage, in that, there are a number of National Monuments, sites of Architectural Heritage, Protected Structures and an ACA recorded in and surrounding the town centre. All of which will require sensitive development within the area.

Lastly, there is potential for negative impacts to water in that, a number of waterways traverse draft Joint Lap study area and the sequential lands to the west of the town centre have been identified as having flood risk potential. Flooding can negatively impact water quality in that, flood water can carry eroded material and suspend sediment in the water, along with contaminants and pollutants. If flooding were to occur, there may also be potential for negative impacts to occur on population and human health and biodiversity, particularly where flooding occurs in close proximity to densely populated areas and areas of biodiverse green space.

7.3.2 Scenario 2: Northern Growth

Scenario 2 relates to focussed development on zoned lands to the north of the town, i.e. Maynooth Environs located in County Meath and adjoining infill lands in County Kildare. This Scenario includes development of greenfield sites for new residential, employment and social infrastructure uses, as well as the provision of new road infrastructure and active travel links from the Maynooth Environs (Moygaddy, County Meath) to Maynooth Town Centre.

Scenario 2 is likely to result in overall negative environmental impact (biodiversity, water, land and soils, air quality, climate and noise) as it will focus new development predominantly on greenfield sites. Any greenfield development is likely to result in significant negative environmental impacts. In this Scenario, both construction and operational stages of development are likely to result in negative environmental impact.

Scenario 2 is likely to provide a key piece of transport infrastructure for the town which may have potential to relieve traffic flow in the town centre. This is positive from a Material Assets perspective. However, increased road infrastructure also has potential to increase reliance on private vehicle use, which can have negative implications to air quality, climate and noise. Embodied carbon and operational carbon from increased vehicle usage will likely be produced as a result of the construction and operational phases of new road infrastructure.

The development area for this Scenario is in proximity to the sensitive Rye Water Valley / Carton SAC. Due to the sensitivity of this site significant negative environmental impacts are anticipated. A number of sites are also noted to include a potential surface water corridor that traverses the site. Areas along the Rye Water River are also subject to flood risk, flooding can negatively impact water quality as flood water can carry eroded material and suspend sediment in the water, along with contaminants and pollutants.

Positive impacts are likely for population and human health in that, lands in the Maynooth Environs (Moygaddy, County Meath) are identified in RSES for strategic employment development. Land availability in this Scenario could address the jobs requirement of the draft Joint LAP and increase local employment in the area. However, as there is no access to public transport services in this area, commuting may be an issue for surrounding population and human health. Furthermore, this area is not in a location that has been identified for future public transport services such as DART+ West and BusConnects. As previously discussed, lack of public transport infrastructure can increase reliance on private vehicle usage with can negatively impact low-carbon development in the Maynooth and Environs area.

Uncertain impacts have been identified for material assets in that, provision of increased infrastructure will be positive, however, servicing infrastructure (Maynooth Outer Orbital Route) is dependent on delivery by Meath County Council / private developers and so, the outcomes are currently uncertain.

Impacts to landscape and visuals are also considered to be uncertain as the extent, scale and location of development likely to take place is currently unknown.

Lastly, there is potential for negative impacts on archaeological, architectural and cultural heritage as a result of this Scenario in that, there is a number of National Monuments on and surrounding the area. Thus, this area will require sensitive development.

7.3.3 Scenario 3: Eastern Growth

Scenario 3 relates to focussed development in the east of the town, between the railway/canal corridor and the motorway (i.e. Railpark), towards Leixlip. New development in this Scenario is to be accessed from the Maynooth Eastern Ring Road (MERR) which has obtained Part 8 planning permission, and the CPO of the lands has been approved An Bord Pleanála.

Scenario 3 is likely to result in overall negative environmental impact (biodiversity, water, land and soils, air quality, climate and noise) as it will focus new development predominantly on greenfield sites. Any greenfield development is likely to result in significant negative environmental impacts, where both construction and operational stages of development are likely to result in negative environmental impact.

Potential uncertain impacts have been assessed for population and human health where the provision of increased housing is likely to be facilitated, however the provision of which will be located in areas where only bus links in the south and north portions of the land will be available. Challenges are further identified in that, this area is removed from town centre services, the train station, and Maynooth University. Access to this area is also dependent on delivery of Maynooth Eastern Ring Road and overall, this land is considered to be insufficient to meet all Core Strategy allocation.

Impacts to landscape and visuals are also considered to be uncertain as the extent, scale and location of development likely to take place is currently unknown.

Positive impacts are anticipated for material assets, in that, the provision of infrastructure is likely to be facilitated and improved in this Scenario.

Lastly, there is potential for negative impacts on archaeological, architectural and cultural heritage in this Scenario as there is a number of National Monuments on and surrounding the area. Thus, this area will require sensitive development.

7.3.4 Scenario 4: Western Growth

Scenario 4 relates to focussing all new development in the west of the town, i.e. Collegeland and Laraghbryan. This Scenario also relates to high density development surrounding the planned new train station and access to the area being facilitated by the planned Maynooth Outer Orbital Route (MOOR).

Overall positive impacts are anticipated for population and human health where transitional population growth will be focused on high capacity planned/existing public transport corridors. Strategic growth of the town and the potential for job creation will be facilitated in line with RSES in this Scenario. High-density development will also be located next to Maynooth University in order to facilitate the planned growth of Maynooth University.

This Scenario is likely to result in overall negative environmental impact (biodiversity, water, land and soils, air quality, climate and noise) as it will focus new development predominantly on greenfield sites. Any greenfield development is likely to result in significant negative environmental impacts. Further relating to Water, the lands south of the railway line are subject to significant flooding. Flooding can negatively impact water quality in that, flood water can carry eroded material and suspend sediment in the water, along with contaminants and pollutants. If flooding were to occur, there is also potential for negative impacts to occur on population and human health and biodiversity, particularly if flooding occurs in proximity to densely populated areas and areas of biodiverse green space.

Both potential for positive and negative impacts are anticipated for air quality, climate and noise.

In this Scenario population growth will be focused on high capacity planned/existing public transport corridors in line with RSES, which is likely to provide opportunities for compact growth. Compact growth in turn could integrate low-car and no-car residential developments in proximity to planned DART+ West infrastructure and has potential to deliver 10-minute settlement principle. As previously mentioned where

new development will be taking place there is potential for negative environmental impact, including impacts to air quality, climate and noise. However, overall, it is anticipated that predominantly positive long-term impacts on air quality, climate and noise are likely in relation to this Scenario. Opportunities for compact growth along existing public transport corridors can potentially reduce long-term transport emissions, particularly relating to private vehicle usage.

It is considered that significant servicing infrastructure will be required in support of this Scenario. It is also anticipated that increased population density as a result of this Scenario could put a strain on utilities and services in the town centre, until which time that servicing infrastructure can be provided. Where any new development is occurring, it should be ensured that there is sufficient water and wastewater capacity to facilitate the additional development. It is considered that material assets has potential to be negatively impacted upon in this Scenario.

Impacts to landscape and visuals are considered to be uncertain as the extent, scale and location of development likely to take place is currently unknown.

Lastly, there is potential for negative impacts on archaeological, architectural and cultural heritage as there is a number of National Monuments and sites of Architectural Heritage on and surrounding the area. Thus, this area will require sensitive development.

7.3.5 Scenario 5: Town centre consolidation, Rail-based development to west, phased and connected development to east and north.

This Scenario involves the consolidation of the existing town centre by encouraging the regeneration and appropriate development of vacant and under-utilised sites for residential and economic development. In this Scenario, development will be focussed on developing infill and sequentially appropriate sites within the defined BUA of the town. Rail-based development will be facilitated surrounding the planned new railway station, and new active travel and green infrastructure links to Maynooth town centre will be facilitated. This Scenario aims to prioritise a people-centred town centre and environment that prioritises sustainable movement transport modes.

Urban regeneration and redevelopment can substantially contribute to the sustainable development of urban areas and are likely to result in an overall positive impact on the environment. For the purposes of this assessment, it is assumed that development will be occurring predominantly on brownfield sites, in this case environmental components such as biodiversity, water and land and soils are predicted to result in predominantly neutral impacts. However, it is assumed that greenfield development will also be occurring in the north-west, north-east and the south-east of the draft Joint LAP study area. Any greenfield development is likely to result in significant negative environmental impacts. Uncertain effects are identified for the purposes of this assessment.

Overall, positive impacts are anticipated for air quality, climate and noise and population and human health, as this Scenario is likely to consolidate the existing urban footprint of settlement and provide environmental benefits in terms of promoting low carbon development, active travel, green infrastructure and the prioritisation of sustainable transport modes. Further in relation to population and human health, this Scenario aligns with RSES for strategic employment and residential development in the Maynooth Environs and has potential to deliver a ten-minute settlement principle at Railpark and Collegeland/Laraghbryan. Finally, this Scenario can support and aid wellbeing for surrounding population and human health in delivering an Urban Neighbourhood Park, Municipal Sports Facility, and greater ability to provide social infrastructure at various locations.

Positive impacts are anticipated for material assets, in that, sequential development will be facilitated, as well as the provision of improved infrastructure.

In this Scenario, there may be potential for negative impacts on AA&CH, in that, there are a number of National Monuments, sites of Architectural Heritage, Protected Structures and an ACA recorded in and surrounding the town centre. All of which will require sensitive development within the area.

Lastly, there is potential for positive impacts on L&V in that, this Scenario presents an opportunity for public realm improvements, including restoration and reuse of currently underutilised and or vacant sites. These

improvements are likely to improve the visual appearance of Maynooth Town Centre and surrounding areas. There are, however, scenic viewpoints located in the town centre, and so any development that is likely to occur in the town centre must be sensitive to these Viewpoints.

7.4 Emerging Preferred Scenario

The emerging preferred alternative is Alternative 5. As noted in Section 7.3, Alternative 5 relates to town centre consolidation, rail-based development to west, phased and connected development to east and north of the draft Joint LAP study area.

8. Assessment of Significant Effects

8.1 Introduction

The approach used for assessing likely significant effects was objectives led. The assessment was primarily qualitative in nature, with some assessment based on expert judgement. This qualitative assessment compares the likely effects against the Strategic Environmental Objectives to see which aims and commitments of KCC and MCC meet the SEOs and which, if any, contradict these.

Particular reference was made to the potential for cumulative effects in association with other relevant plans and programmes.

Regard was also had to the need for the sustainable development of ecological resources (including the conservation of fish and other species of fauna and flora, habitats and the biodiversity of water ecosystems and commercial and natural fisheries) as economic resources.

8.2 Assessment of Environmental Effects

The environmental effects of the draft Joint LAP aims and commitments were assessed with respect to the existing environmental baseline as outlined in Section 5 and the environmental objectives listed in Section 6. The assessment process categorises environmental effects using the ratings outlined in Table 8.1 which is based on the impact assessment criteria defined by the EPA for environmental impact assessment.

Table 8.1 Significance Ratings

Significance of Effects									
	Neutral								
	Positive								
	Negative								
	Uncertain								

The potential environmental impact is assessed under the following headings:

- P&HH
- Bio
- L&S
- Wat
- AQ,C&N
- AA&CH

- L&V; and
- MA

8.3 Principal Environmental Effects

The environmental effects of the draft Joint LAP were assessed, having regard to the baseline environmental assessment (Section 5). This assessment outlines an unmitigated scenario. The matrix outlined in Table 8.2 highlights these potential effects.

Where potential effects are identified, it is expected that these can be mitigated through the implementation of the mitigation measures outlined in Section 9. This Section also includes a site-specific zoning assessment relative to the draft Joint LAP (Table 8.3).

Table 8.2 Strategic Environemtnal Assessment – Policies and Objectives of the draft Joint LAP

Objective and or Policies	Aims / Commitments	SEA	A Env	vironr	nenta	ıl Obj	ectiv	es		SEA Commentary
		Р & НН	Bio	L&S	Wat	AQ, C & N	AA & CH	L&V	MA	
Decarbonisation Obje	ectives									
DO 1.1	Support the full implementation of the Local Authority Climate Action Plan 2024–2029 for Kildare County Council and the Local Authority Climate Action Plan 2024–2029 for Meath County Council, or any succeeding plans, with regards to their contents relating to the planning and development within the Maynooth and Environs Joint Plan area. This also includes objectives and actions outlined in Chapter 5 of the Kildare Local Authority Climate Action Plan 2024–2029 that relate to the Maynooth Decarbonising Zone (DZ).									An overall positive environmental impact has been identified in supporting the full implementation of the Local Authority Climate Action Plan 2024–2029 for Kildare County Council and the Local Authority Climate Action Plan 2024–2029 for Meath County Council. Neutral impacts are anticipated otherwise.
DO 1.2	Support applications for all climate action projects in Maynooth under the Climate Action Fund, the Community Climate Action programme, the Just Transition Fund and all other relevant funding streams.									An overall positive environmental impact has been identified in supporting the applications for all climate projects in Maynooth. Neutral impacts are anticipated otherwise
Compliance with the	Core Strategies Objective						•	•		
CCSO 1.1	Support and facilitate compact growth development in Maynooth through the adoption of a quadrant-based planning approach to implementing the 10-minute settlement principle in the town. Such an approach shall seek the realisation of an integrated network of well-designed neighbourhoods that can meet the day-to-day needs of residents within a 10-minute walk of all homes in Maynooth. Quadrant-based planning also supports the sustainable intensification and consolidation of the town centre and established residential, commercial and employment areas.									Compact growth of Maynooth will have a positive impact on population and human health, as well as air quality and climate as it discourages urban sprawl, reduces traffic movements and encourages more sustainable transport methods. It is not possible to fully ascertain the potential impact on heritage, as a large portion of the town has structures of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. Development in this area, even redevelopment or re-generation could potentially negatively impact on sites or buildings of historical or architectural significance.
										A high population density in Maynooth town centre has potential to put a strain on material assets.

SEA Environmental Report

Objective and or Policies	Aims / Commitments	SEA	\ Env	rironr	nenta	ıl Ob	jectiv	es		SEA Commentary
		Р & НН	Bio	L & S	Wat	AQ, C & N	AA & CH	L&V	MA	
										High density housing can also result in a landscape and visual impact if residential units are too intrusive, however, at present the scale or density of development is not known.
CCSO 1.2	Establish a Joint Local Area Plan Monitoring and Implementation Group following the adoption of the Plan who will prepare a Monitoring and Implementation Framework that will include an agreed co-ordinated approach for the monitoring of the Plan, along with ensuring the effective implementation and delivery of its provisions and objectives, for the respective local authorities.									The establishment of a Joint Local Area Plan Monitoring and Implementation Group is likely to result in a positive impact on the environment in general in that it will include an agreed co-ordinated approach for the monitoring of the Plan, along with ensuring the effective implementation and delivery of its provisions and objectives, for the respective local authorities.
CCSO 1.3	Ensure sufficient land is zoned at appropriate locations to satisfy the Core Strategy growth allocations of the Kildare and Meath County Development Plans, as well as the appropriate application of the Transitional Population Targets provided for under National Policy Objective 68 of the National Planning Framework.									An overall uncertain environmental effect is identified in that the type, scale and location of the land-zoning is unknown from this objective. Proceeding objectives contain further detail on specific land-use zonings and are assessed accordingly.
CCSO 1.4	Support new residential development and infill development that occurs in tandem with the delivery of supporting physical and social infrastructure.									Any new development has the potential to give rise to negative environmental effects. Refer to mitigation measures in Section 9 of this report. The delivery of physical and social infrastructure to support all residential development will result in a positive impact on Population & Human Health and Material Assets. Potential uncertain impacts have been identified for archaeological, architectural, and cultural heritage and landscape and visual, as the type, scale and location of the development has not been defined.
CCSO 1.5	Focus new enterprise development into lands identified for Research and Technology, Industry / Office Park and Warehousing and Enterprise and Employment uses.									An overall uncertain environmental effect is identified with regards to this objective. Refer to the site-specific zoning assessment for an assessment of any proposed new developments on, or zoning of lands for Enterprise and Employment, and Industry/ Office Park and Warehousing uses. There is potential for positive impacts for population and

Objective and or Policies	Aims / Commitments	SEA	A Env	rironr	nenta	al Ob	jectiv	es		SEA Commentary
		Р & НН	Bio	L & S	Wat	AQ, C & N	AA & CH	L&V	MA	
										human health where enterprise development may see increased economic activity in the area, however as the type and nature of developments are unknown, overall uncertain impacts are identified.
CCSO 1.6	Preserve the lands identified as 'Maynooth West Long Term Strategic and Sustainable Development Site' on the Map 11.2: Implementation, thereby controlling the level of piecemeal and haphazard development on these lands and safeguarding their strategic value in accommodating the orderly sequential expansion of the urban settlement beyond the current Plan period.									This objective relates to preservation of land for future development. No development is likely to occur within the plan period. An overall neutral environmental effect is therefore identified.
CCSO 1.7	Continue to actively seek funding from relevant agencies and government sources including the Urban Regeneration and Development Fund (URDF) to secure financial support for all regeneration and urban development projects in Maynooth.									As this objective relates to seeking funding only, a neutral environmental effect has been identified for the purposes of this objective.
CCSO 1.8	Ensure that projects giving rise to adverse effects on the integrity of European sites (cumulatively, directly, or indirectly) arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall not be permitted on the basis of this plan.									Measures relating to the protection and conservation of European sites (cumulatively, directly, or indirectly) are likely to result in a positive effect on biodiversity, land and soil, water, air quality, noise and climate and landscape and visual.
Town Centre Consol	idation and Renewal Objectives									
TCO 1.1	Promote the town centre as the priority location for commercial, civic, social and cultural development and facilitate the renewal of derelict sites and brownfield land to support compact growth development that consolidates and regenerates the existing urban core.									The re-development and regeneration of the town will have a positive impact on population and human health, as well as air, climate and noise as it discourages urban sprawl, reduces traffic movements, enhances the public realm and encourages more sustainable transport methods. It is not possible to fully ascertain the potential impact on heritage, as a large portion of Maynooth is designated as an

Objective and or Policies	Aims / Commitments	SEA	Env	ironn	nenta	al Ob	jectiv	es		SEA Commentary
		Р & НН	Bio	L&S	Wat	AQ, C & N	AA & CH	L&V	MA	
										Architectural Conservation Area. Development in this area, even re-development or re-generation could negatively impact on sites or buildings of historical or architectural significance. An overall likely neutral effect on biodiversity, water and landscape and visual is identified in that renewal of derelict sites and brownfield land is likely to result in predominantly neutral environmental impacts as existing buildings and previously developed are being utilised and renewed. Furthermore, the redevelopment of brownfield sites has the potential to result in a positive impact on land and soils, it involves the remediation of potentially contaminated land. A high population density in Maynooth Town Centre could however put a strain on material assets, however the recent upgrades to Lower Liffey Valley Regional Sewerage Scheme and sewer network should accommodate all development proposed under the plan.
TCO 1.2	Encourage and facilitate the full use of existing buildings and sites and in particular the use of upper floors and backlands, having particular regard to high quality urban design and materials used, as well as integration and linkages.									The re-development and regeneration of the town will have a positive impact on population and human health, as well as air quality and climate as it discourages urban sprawl, reduces traffic movements, enhances the public realm and encourages more sustainable transport methods. It is not possible to fully ascertain the potential impact on heritage, as a large portion of Maynooth is designated as an Architectural Conservation Area. Development in this area, even re-development or re-generation could negatively impact on sites or buildings of historical or architectural significance. An overall likely neutral effect on biodiversity and water is identified in that renewal of derelict sites and brownfield land is likely to result in predominantly neutral environmental impacts as existing buildings and previously developed are being utilised and renewed. Furthermore, the redevelopment of brownfield sites has the potential to result in a positive impact on land and soils, it involves the remediation of potentially contaminated land. A high population density in Maynooth Town Centre could however put a strain on material assets, however the recent

Objective and or Policies	Aims / Commitments	SEA	\ Env	rironr	nenta	al Ob	jectiv	es		SEA Commentary
		Р & НН	Bio	L & S	Wat	AQ, C & N	AA & CH	L&V	MA	
										upgrades to Lower Liffey Valley Regional Sewerage Scheme and sewer network should accommodate all development proposed under the plan. A potential positive impacts is envisaged for landscape and visual as a result of having particular regard to high quality urban design and materials used, as well as integration and linkages.
TCO 1.3	Protect the inherent character of the town centre and ensure that new development responds positively to its established built form, fine urban grain, and human scale to sustain and improve its attraction for living, working, visiting and investment.									Ensuring that the quality of the public realm is enhanced will result in a positive impact on the population and human health. Landscape and visual and heritage will all be positively impacted through enhancement of the character if the townscape, where new development responds positively to the towns established built form, scale, and character.
TCO 1.4	Require that all new development enhances the quality of the public realm. This includes the facilitation of a connected network of streets and spaces which prioritise pedestrians and cyclists and provides for the possibility of connections to future development on adjacent lands.									Ensuring that the quality of the public realm is enhanced will result in a positive impact on the population and human health. Landscape and visual and heritage will all be positively impacted through enhancement of the character if the townscape, where new development responds positively to the towns established built form, scale, and character.
TCO 1.5	Protect the vibrancy, ambience, quality and vitality of the town centre by: i. Promoting an appropriate mix of day and night-time uses. ii. Preventing an excessive concentration of non-desirable uses including takeaways, off-licences, bookmakers, phone repair shops and vape shops (where planning permission is required). iii. Facilitating development that will attract and retain commercial and retail activities in the town centre. iv. Encouraging the re-use of vacant units for alternative functions and uses such as live-work units, residential units, remote working hubs, enterprise incubation, tourist spin-off enterprises, tourist accommodation, niche retail									The protection of vibrancy, ambience, quality and vitality of the town centre for the reasons listed will have a positive impact on population and human health, landscape and visual, as well as air, climate and noise as it discourages urban sprawl, provides a centralised retail core, reduces traffic movements, enhances the public realm and encourages the re-use of vacant units for alternative functions. It is not possible to fully ascertain the potential impact on heritage, as a large portion of Maynooth Town Centre is designated as an Architectural Conservation Area. Development in this area, even re-development or regeneration could negatively impact on sites or buildings of historical or architectural significance.

Objective and or Policies	Aims / Commitments	SEA	\ En\	/ironr	nenta	al Ob	jectiv	es		SEA Commentary
		Р & НН	Bio	L&S	Wat	AQ, C & N	AA & CH	L&V	MA	
	including food or craft enterprises and cultural offerings such as a theatre or museum.									Otherwise, this objective is likely to result in a neutral impact on the environment, in general.
TCO 1.6	Continue to actively engage with the community, landowners, developers and other agencies to secure resources for the enhancement, renewal and regeneration of Maynooth Town Centre.									Increased engagement with community, landowners, developers and other agencies to pursue resources for the enhancement, renewal and regeneration of Maynooth Town Centre is likely to have a positive impact on the population and human health. An otherwise neutral environmental impact is predicted.
TCO 1.7	Support and facilitate the regeneration of the Maynooth Central Settlement Consolidation Site for town centre uses and compact growth development, in accordance with the Urban Design Framework set out in Section 11.1.									Urban development and regeneration of the town of Maynooth will contribute positively to the compact growth agenda. The development and regeneration of the town centre will provide greater opportunity to live and work in the town in addition to greater service provision. Thus, a potential positive effect on the population is identified. Compact growth also favours air, noise and climate factors in that it reduces the need for urban sprawl and subsequent traffic movements. An uncertain effect on heritage is identified at this time in that Maynooth, in particular the ACA is of unique heritage value. Development or regeneration in the town will need to be cognisant of any features or areas of architectural significance. Regeneration by its nature generally has a positive effect on the landscape and visual amenity of the town centre- where previously derelict or poor quality buildings are targeted. An uncertain effect on material assets is identified in that urban development and regeneration of a town centre can lead to both positive and negative environmental effects. Positive effects on material assets as a result of regeneration and urban development stem from reductions in urban sprawl. Negative effects of compact growth include increased demand on existing services and utilities.
TCO 1.8	Support the preparation and implementation of a Town Renewal Masterplan for Maynooth. This plan will									This objective relates to the preparation of a town renewal masterplan for Maynooth, and not the redevelopment itself. An

Objective and or Policies	Aims / Commitments	SEA	\ Env	rironn	nenta	al Obj	jectiv	es		SEA Commentary
		Р & НН	Bio	r & S	Wat	AQ, C & N	AA & CH	L&V	MA	
	incorporate a Health Check and detailed urban design analysis and implement its recommendations on a phased basis over the lifetime of the Plan and beyond.									overall neutral environmental effect is therefore identified until such time that a plan is prepared.
TCO 1.9	Prepare a Public Realm Strategy either as part of, or as an action of the Town Renewal Masterplan for Maynooth. Such a strategy shall prioritise the following areas within the town centre for spatial interventions and seek to implement its provisions on a phased basis over the life of the Plan and beyond: • Main Street • Laneways and side streets • Court House Square • Maynooth Castle Civic Space • Harbour Field Park (subject to an existing Part 8 Planning Scheme)									This objective relates to the preparation of a Public Realm Strategy for Maynooth, and not the redevelopment itself. An overall neutral environmental effect is therefore identified until such time that a plan is prepared.
TCO 1.10	Support the Town Team and the Town Regeneration Officer in the carrying out of their duties in Maynooth in respect of prioritising the regeneration of the town centre through the application of the government's <i>Town Centre First</i> policy (2022).									The regeneration of the town centre through the application of the Town Centre First Policy approach will have a positive impact on population and human health, as well as air quality and climate as it discourages urban sprawl and can potentially reduce traffic movements. It is not possible to fully ascertain the potential impact on heritage, as a large portion of Maynooth Town Centre is designated as an Architectural Conservation Area. Development in this area, even re-development or regeneration could potentially negatively impact on sites or buildings of historical or architectural significance. A high population density in Maynooth Town Centre could however put a strain on material assets.
Residential Developn	nent Objectives									
HCO 1.1	Promote new residential development that occurs in tandem with the delivery of supporting physical and social infrastructure identified in the Social Infrastructure Audit									Any new development has the potential to give rise to negative environmental effects. Refer to mitigation measures in Section 9 of this report.

Objective and or Policies	Aims / Commitments	SEA	\ Env	rironr	nenta	al Ob	jectiv	ves		SEA Commentary
		Р & НН	Bio	L & S	Wat	AQ, C & N	AA & CH	L & V	MA	
	(SIA) and set out in Section 11.5 Implementation and Infrastructure Delivery Schedule.									The delivery of physical and social infrastructure to support all residential development will result in a positive impact on Population & Human Health and Material Assets. Cumulative negative environmental impacts are likely to occur as a result of supporting new residential development that occurs in tandem with the delivery of supporting physical and social infrastructure identified in the Social Infrastructure Audit (SIA) and set out in the Infrastructure Delivery Schedule. It is not possible to ascertain the whether the proposed objective has the potential to result in negative impacts on heritage and landscape and visuals, as the scale of the inclusive developments have not been defined. Refer to sitespecific zoning assessment. A positive impact on population and human health is predicted through increased residential opportunities and likelihood of improved services.
HCO 1.2	Encourage the appropriate redevelopment of brownfield and infill sites for a mix of uses (including residential) within the existing built-up area (BUA), including within Maynooth Central Settlement Consolidation Site (SCS).									The development of brownfield and infill sites for residential uses within the footprint of the existing built-up areas will have a positive impact on population and human health, as well as air quality and climate as it provides new housing opportunities, discourages urban sprawl, reduces traffic movements, enhances the public realm and encourages more sustainable transport methods. An increase in the population density in existing built-up areas could however put a strain on material assets, and thus material assets has been identified as likely to result in uncertain impacts. An overall likely neutral effect on biodiversity, water and landscape and visual is identified in that renewal of derelict sites and brownfield land is likely to result in predominantly neutral environmental impacts as existing buildings and previously developed are being utilised and renewed. Furthermore, the redevelopment of brownfield sites has the potential to result in a positive impact on land and soils it involves the remediation of potentially contaminated land.

Objective and or Policies	Aims / Commitments	SEA	\ Env	rironn	nenta	al Ob	jectiv	es		SEA Commentary
		Р & НН	Bio	L & S	Wat	AQ, C & N	AA & CH	L&V	MA	
HCO 1.3	Support and facilitate the application of the Residential Zoned Land Tax (RZLT) to all serviced residential zoned lands (including mixed-use lands) within the Joint Plan area.									This objective is likely to result in a neutral impact on the environment, in general. The application of Residential Zoned Land Tax (RZLT) will have a positive impact on population due to increased revenue circulating in Maynooth.
HCO 1.4	Manage the provision of one-off housing on lands zoned as 'I: Agricultural' within County Kildare. Limited one-off housing will be permitted in this zone subject to compliance with the rural housing policy of the Kildare County Development Plan and all other normal siting and design considerations.									As outline in the Rural Housing Policy of Kildare County Development Plan 2023-2029, the provisions of the Rural Housing Policy consist of Zone 1 'Areas under Strong Urban Influence' and Zone 2 'Stronger Rural Areas' and are detailed as follows: In 'Areas under Strong Urban Influence', it will be an objective of the Council to facilitate the provision of single housing in the countryside based on the core considerations of: demonstrable 'economic or social' need to live in a rural area and build their home, and siting, environmental and design criteria for rural housing in statutory guidelines and plans In 'Stronger Rural Areas', it will be an objective of the Council to facilitate the provision of single housing in the countryside based on siting, environmental and design criteria for rural housing in statutory guidelines and plans, having regard to the viability of smaller towns and rural settlements. It is also recognised that certain parts of the county are of significant scenic value and must be protected to maintain and protect their landscape quality. On this basis, a neutral impact on all environmental aspects is predicted.
Residential Density, N	Mix and Design Objectives									
HCO 2.1	Require that a good mix of housing types and sizes (including dwellings incorporating green and innovative designs) is provided in all new residential developments, to meet the needs of the population of Maynooth, including the provision of specific purpose-built housing									This objective is likely to result in a neutral impact on the environment, in general. A positive impact on population and human health is predicted through the provision of accessible housing options.

Objective and or Policies	Aims / Commitments	SEA	\ Env	vironr	nenta	al Ol	bjecti	ves		SEA Commentary
		Р & НН	Bio	L&S	Wat	AQ, C & N	1 =	L&V	MA	
	for older people to facilitate 'right sizing' and assisted living accommodation designed for older people and people with disabilities.									It is not possible to ascertain whether the proposed developments will result in a negative impact on landscape and visual as their will locations and subsequent baseline environments will change, and so too will the size and density of the proposed developments. High density development can result in a landscape and visual impact if they are too intrusive.
HCO 2.2	Require a high standard of urban design to be integrated into the layout and design of all new residential development in Maynooth and ensure compliance with the principles of healthy placemaking by integrating opportunities for physical activities, social interaction and active travel, through the creation of compact, permeable developments which feature high-quality pedestrian and cyclist connectivity.									Requiring that all new residential development in Maynooth are designed in compliance with the principles of healthy placemaking will have a positive impact on population and human health, landscape and visual, and air, climate and noise as it has potential to reduce traffic movement, enhances the public realm and encourages more sustainable transport methods. This objective is likely to result in a neutral impact on the environment, in general.
HCO 2.3	Support the actions set out in the Kildare Age Friendly Strategy 2023 – 2027 and the Meath Age Friendly Strategy 2023 – 2028 (and any subsequent strategies in each county) regarding the implementation of age friendly principles in the planning, design and delivery of physical infrastructure in Maynooth.									This objective is likely to result in a neutral impact on the environment, in general. A positive impact on population and human health is predicted with regards to the implementation of age friendly principles in the planning, design and delivery of physical infrastructure in Maynooth.
HCO 2.4	Seek to provide Traveller Specific Accommodation at appropriate locations close to key services, including education, community, health, recreation and public transport facilities in accordance with Kildare County Council's Traveller Accommodation Programme 2019-2024, and any successive strategy.									Provision of Traveller Specific Accommodation at appropriate locations close to key services and public transport facilities will have a positive impact on Population & Human Health. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. However, as the scale and location of this development not fully known at this time, an uncertain effect has been identified for the purposes of this assessment.

Objective and or Policies	Aims / Commitments	SEA	A Env	/ironn	nenta	l Obj	ectiv	es		SEA Commentary
		Р & НН	Bio	L&S	Wat	AQ, C & N	AA & CH	L&V	MA	
HCO 2.5	Support the development of age-friendly housing in Maynooth, particularly on lands located within Maynooth Town Centre or on 'UZ1: University Zone' lands proximate to the town centre, subject to appropriate siting and design considerations.									A positive impact on population and human health, as well material assets is predicted through the provision of age friendly housing. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. However, as the scale and location of this development is not fully known at this time, an uncertain effect has been identified for the purposes of this assessment.
HCO 2.6	Require that residential schemes in close proximity to heavily trafficked roads or the rail line are designed and constructed to minimise noise disturbance. A suitably qualified acoustic specialist shall be engaged in the development design process, paying particular attention to the Kildare Noise Action Plan 2019-2023 (or any subsequent plan) and the EPA 'Environment and Wellbeing' Maps. An Acoustic Design Statement, including proposals for post-construction noise monitoring, clearly demonstrating that significant adverse noise impacts will be avoided shall be submitted with development applications.									This objective is likely to result in a neutral impact on the environment, in general. Positive impacts on biodiversity and landscape and visuals are predicted through the provision detailed proposals for appropriate soft boundary treatments which should be in accordance with this draft Joint LAP. Requiring that residential schemes in close proximity to heavily trafficked roads or the rail line are designed and constructed to minimise noise disturbance will have a positive impact on both population and noise with regards those residents who will be living in close proximity to these roads/streets.
Education and Traini	ng Objectives									
HCO 3.1	Support and facilitate new schools, and improvements/expansion of existing educational facilities, including third level and further educational opportunities which may arise, at appropriate locations in Maynooth.									A positive impact on population and human health and material assets is predicted through the provision of additional schools, educational facilities and improved infrastructure. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. However as the type and location of this development is varied and not fully known at this time, an uncertain effect has been identified for the purposes of this assessment.

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HCO 3.2	Continue to engage with the Department of Education in respect of the identification and phased delivery of one/two new primary school(s) (with a combined capacity for approximately 1,100 pupils) at Laraghbryan East on lands zoned as 'E (2): Community and Education' and a new post-primary school (with capacity for approximately 1,250 pupils) at Celbridge Road on lands zoned as 'E (3): Community and Education' to facilitate the projected population growth in this Plan.									A positive impact on population and human health and material assets is predicted through the provision of additional schools, educational facilities and improved infrastructure. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. However as the scale of this development is not fully known at this time, an uncertain effect has been identified for the purposes of this assessment.
HCO 3.3	Support the Kildare and Wicklow Education and Training Board (KWETB) in respect of the delivery of a new post-primary school building for Gaelcholáiste Mhaigh Nuad on Moyglare Road.									A positive impact on population and human health and material assets is predicted through the provision of additional schools, education facilities and improved infrastructure. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring on Moyglare Road. It is not possible to ascertain the whether the proposed objective has the potential to result in negative impacts on heritage and landscape and visuals, as the scale of the inclusive developments have not been defined. Refer to site-specific zoning assessment.
Childcare Objectives										
HCO 4.1	Encourage the integration and co-location of childcare facilities with educational institutions to improve accessibility and convenience.									For the purposes of this assessment, it is assumed that no new development will be taking place as a result of this objective. Hence, this objective is likely to result in a neutral impact on the environment, in general. A positive impact on population and human health and material assets is predicted with regards to improve accessibility and convenience for users.
HCO 4.2	Support the provision of appropriately located and purpose-built early learning and childcare facilities to resolve the current capacity issues and to meet the pro-rata childcare needs of housing development during the plan period. Childcare facilities will be required, by a condition of planning permission, to be developed within the first									A positive impact on population and human health is predicted through the provision of additional early learning and childcare facilities. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. However as the scale and location of this

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	phase of any new residential development where childcare is required to be delivered.									development is not fully known at this time, an uncertain effect has been identified for the purposes of this assessment. It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage and landscape & visual at this stage of the development, as the scale of development is currently unknown. Refer to Mitigation Measures in Section 9.
Healthcare Objective	s									
HCO 5.1	Support and co-operate with promoters and operators of public and private healthcare facilities by facilitating and encouraging the provision of improved facilities in appropriate locations in Maynooth in order to address the current deficit in provision and to meet future needs during the lifetime of the Plan.									A positive impact on population and human health is predicted through the provision of additional health care facilities. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. However, as the scale and location of this development is not fully known at this time, an uncertain effect has been identified for the purposes of this assessment. It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage and landscape & visual at this stage of the development, as the scale of development is currently unknown. Refer to Mitigation Measures in Section 9.
HCO 5.2	Support the delivery of a new primary care centre on land zoned 'E (2): Community and Education' at Laraghbryan, subject to planning and design considerations.									A positive impact on population and human health and material assets is predicted through the provision of a new primary care centre in Maynooth. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage and landscape & visual at this stage of the development, as the scale of development is currently unknown. Refer to Mitigation Measures in Section 9.
HCO 5.3	Support the upgrading/redevelopment of the existing Maynooth Health Centre building located on Leinster									A positive impact on population and human health and material assets is predicted through the

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	Street in order to provide expanded and enhanced health services to meet the needs of the community.									upgrading/redevelopment of the existing Maynooth Health Centre building located on Leinster Street. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage and landscape & visual at this stage of the development, as the scale of development is currently unknown. Refer to Mitigation Measures in Section 9.
HCO 5.4	Support the provision of GP practices in Maynooth within the town centre, in designated neighbourhood centres and on lands zoned for community purposes, subject to planning and design considerations.									A positive impact on population and human health and material is predicted through the provision of additional health care facilities in the Joint LAP area. The provision of new GP practises on appropriately zoned land are not expected to give rise to significant environmental effects given the scale of the developments. It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage at this stage of the development, as the location of development is currently unknown. Refer to Mitigation Measures in Section 9.
HCO 5.5	Require any planning application for new neighbourhood Centre developments within Maynooth to be accompanied by a feasibility study for a GP practice to be located within the respective development.									This objective is likely to result in a neutral impact on the environment, in general.
HCO 5.6	Support the provision of residential care facilities and services for older people, subject to appropriate siting and design considerations, in order to meet future needs during the lifetime of the Plan.									A positive impact on population and human health and material assets is predicted through the provision of additional care facilities. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. However, as the scale and location of this development is not fully known at this time, an uncertain effect has been identified for the purposes of this assessment.

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										It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage and landscape & visual at this stage of the development, as the scale of development is currently unknown. Refer to Mitigation Measures in Section 9.
Open Space, Sports a	and Recreation Objectives									
HCO 6.1	Support and facilitate the delivery of a public parks on 'F: Open Space and Amenity' and 'High Amenity' zoned Lands at the following locations: Lands at Carton Avenue Lands along the Lyreen and Rye Water Rivers Lands within the Railpark Key Development Area Lands within Maynooth West									Overall neutral impacts have been assessed for this objective as it relates to delivery of a public parks. Landscape and visuals are unlikely to be obstructed in this process and an increase in open space will result, thus potential positive impacts have been identified for landscape and visuals, amongst, population and human health where, increased recreational activity will be facilitated. Negative impacts have been assessed for biodiversity where increased recreation on these lands may disturb biodiversity such as along the Rye Water Valley.
HCO 6.2	Support the redevelopment of Harbour Field Park in accordance with the approved Part 8 planning scheme and ensure the commencement of its redevelopment within two years of the adoption of the Joint Plan, subject to funding availability.									Overall neutral impacts have been assessed for this objective as it relates to redevelopment and the delivery of a public park that has been previously approved. Landscape and visuals are unlikely to be obstructed in this process and an increase in open space will result, thus potential positive impacts have been identified for landscape and visuals, amongst, population and human health where, increased recreational activity will be facilitated.
HCO 6.3	Require all new housing developments to deliver safe areas for children to play as part of the public open space provision, in accordance with the standards for new developments set out in the relevant County Development Plan along with the applicable Section 28 Guidelines.									This objective is likely to result in a neutral impact on the environment, in general. A positive impact on population and human health and landscape and visual is envisaged through the provision of safe open spaces in housing developments
HCO 6.4	Improve existing open space areas in housing developments that have been taken in charge by Kildare County Council and to provide additional play facilities,									This objective is likely to result in a neutral impact on the environment, in general. A positive impact on population and human health and landscape and visual is envisaged through

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	pocket parks and outdoor seating where feasible and appropriate.									the improvement of existing open space areas in housing developments.
HCO 6.5	Facilitate the development of a network of universally designed playgrounds, amenity spaces and recreational areas throughout the town in accordance with Table 5.6 of this Plan.									The development of a network of playgrounds, amenity spaces and recreational areas is likely to have a positive impact on population and human health and material assets through improved facilities in the Joint LAP area. However, where the development of playgrounds, amenity spaces and recreational areas will take place on greenfield development sites, there is potential for negative impacts to result on biodiversity, particularly from increased trampling and recreational activity.
HCO 6.6	Promote community-managed gardens/allotments at appropriate locations in Maynooth, including but not limited to lands under the ownership of Kildare County Council at Carton Avenue and the Railpark Key Development Area.									This objective is likely to result in a neutral impact on the environment, in general. A positive impact on population and human health, biodiversity and landscape and visual is envisaged through the allocation of community-managed gardens/allotments to residents.
HCO 6.7	Facilitate sports clubs, community groups and educational institutions in the acquisition and/or use of lands for sports and recreation purposes and support the delivery of multiuse sports facilities (including play facilities and a swimming pool) on appropriately zoned land within the Joint Plan area.									A positive impact on population and human health and material assets is likely to occur as a result of improved facilities in the Joint LAP area. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. However, as the scale and location of this development is not fully known at this time, an uncertain effect has been identified for the purposes of this assessment. It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage and landscape & visual at this stage of the development, as the scale of development is currently unknown. Refer to Mitigation Measures in Section 9.
HCO 6.8	Support and facilitate the provision of appropriately sited accessible multi-functional community facilities to meet the needs of the population of Maynooth, including an all-weather Multi-Use Games Area (MUGA) in Crewhill Key Development Area as part of the Municipal Sports									A positive impact on population and human health and material assets is likely to occur as a result of improved facilities in the Joint LAP area. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development

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	Facility, and on 'C: New Residential' zoned lands in Railpark Key Development Area.										occurring. However, as the scale of this development is not fully known at this time, an uncertain effect has been identified for the purposes of this assessment. It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage and landscape & visual at this stage of the development, as the scale of development is currently unknown. Refer to Mitigation Measures in Section 9.
HCO 6.9	Acquire lands zoned 'F(1): Open Space' at Crewhill for the delivery of a Municipal Sporting Facility and work with key stakeholders including the Kildare Sports Partnership, Maynooth University and St. Patrick's College to deliver a shared amenity for sports clubs and the general public.										A positive impact on population and human health and material assets is likely to occur as a result of improved facilities in the Joint LAP area. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. However, as the scale or nature of this development is not fully known at this time, an uncertain effect has been identified for the purposes of this assessment. It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage and landscape & visual at this stage of the development, as the scale of development is currently unknown. Refer to Mitigation Measures in Section 9.
HCO 6.10	Actively seek funding from relevant agencies and government sources including the Large Scale Sports Infrastructure Fund (LSSIF) to secure financial support to development the proposed Municipal Sports Facility on lands zoned 'F(1): Open Space' at Crewhill.										A positive impact on population and human health and material assets is likely to occur as a result of improved facilities in the Joint LAP area. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. However, as the scale of this development is not fully known at this time, an uncertain effect has been identified for the purposes of this assessment. It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage and landscape & visual at this stage of the development, as the scale of development is currently unknown. Refer to Mitigation Measures in Section 9.

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Social and Community	Objectives	ı				ı				
HCO 7.1	Actively support the development of a new community hub for Maynooth within a central and universally accessible location within the town. This purpose-built community hub should incorporate a range of uses as outlined in Section 5.6.5 of this Plan.									A positive impact on population and human health and material assets is predicted through the provision of a new community hub. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. However, as the scale of this development is not fully known at this time, an uncertain effect has been identified for the purposes of this assessment. It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage and landscape & visual at this stage of the development, as the scale of development is currently unknown. Refer to mitigation measures in Section 9.
HCO 7.2	Actively support the relocation of Maynooth Community Library to a central and universally accessible location within the town to enable an enhanced level of service to be offered to the expanding population of Maynooth.									Implementing this objective is likely to result in a positive effect on the population and human health and material assets, where enhanced level of service is offered to the expanding population of Maynooth. Given the scale and proposed location of the Maynooth Community Library within a central and universally accessible location within the town, there is no potential for likely significant environmental effects to occur. It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage and landscape & visual at this stage of the development, as the scale of development is currently unknown. Refer to mitigation measures in Section 9.
HCO 7.3 Social Infrastructure	Support the long term retention of the existing library building on Main Street for community uses, to ensure the property retains its role as a centre for community and civic activities, in accordance with the Government's <i>Town Centre First</i> policy (2022).									This objective is likely to result in a neutral impact on the environment, in general. A positive impact on population and human health and material assets is envisaged through the long-term retention of existing library building for community uses.

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HCO 8.1	Support, promote and facilitate the development of cultural, arts and performance spaces in Maynooth.									Overall, neutral impacts have been assessed as likely to result from this objective as Maynooth consists of hardstanding urban areas; also, the location and scale of development is currently unknown. This objective will however likely result in a positive impact on population and human health through enhanced provision of social facilities.
HCO 9.1	Support the development of an additional cemetery on the E: Community and Education zoned lands at Laraghbryan to the immediate north of the existing cemetery, subject to detailed design and environmental assessment.									The provision of a new cemetery has the potential to result in negative effects to biodiversity, land and soil and water, due to the likelihood of vegetation removal, excavation etc. There is potential for negative effects to occur with regards archaeology, where unknown features are identified. Neutral effects are otherwise identified.
Neighbourhood Centr	re Objectives									
HCO 10.1	Support and facilitate the development of a neighbourhood centre in the following locations: To the north of the town, adjacent to Moyglare Road, also serving Maynooth Environs (Moygaddy, County Meath) To the west of the town, adjacent to the proposed second train station within the designated Maynooth West Transit-Oriented Development (TOD) To the east of the Town serving the strategic residential lands at Railpark The provision of these neighbourhood centres shall have regard to (where relevant) the Implementation and Infrastructure Delivery Schedule set out in Section 11.5 as well as any other relevant provision set out in Chapter 11: Implementation.									A positive impact on population and human health and on material assets is predicted through the provision of additional neighbourhood centres. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage and landscape & visual at this stage of the development, as the scale of development is currently unknown. Refer to mitigation measures in Section 9.
Student Accommodat	tion Objectives									
HCO 11.1	Support the provision of high-quality, professionally managed, undergraduate and graduate student accommodation, preferably on campus, or alternatively in accessible locations adjacent to existing or planned high									A positive impact on population and human health and material assets is predicted through the provision of student accommodation.

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	quality public transport corridors and cycle routes. Such accommodation should be developed in a manner which respects the residential amenities of the locality and does not impact negatively on the provision of other uses (including retail, commercial and general residential development) within Maynooth Town Centre.									There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage and landscape & visual at this stage of the development, as the scale of development is currently unknown. Refer to mitigation measures in Section 9.
HCO 11.2	Support the provision of new on and off-campus student accommodation in appropriate locations where high levels of design quality is achieved (including adequate communal facilities and external communal space). Where sites are developed for student accommodation, the portion of the site relating to this will be exempt from the social and affordable housing requirements of Section 96(1) of the Planning and Development Act 2000 (as amended).									A positive impact on population and human health and material assets is predicted through the provision of student accommodation. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage and landscape & visual at this stage of the development, as the scale of development is currently unknown. Refer to mitigation measures in Section 9.
HCO 11.3	Restrict applications for change of use from student housing to any other form of housing without adequate demonstration that an over-provision of student housing exists.									This objective will result in a positive effect on population, through the provision of necessary student housing. An otherwise neutral environmental effect is identified as the proposed objective does not relate to development.
Economic Developme	ent Objectives									
EDO 1.1	Encourage economic development and employment growth in Maynooth and Environs, in accordance with its designation as a ' <i>Metropolitan Key Town</i> ', while adhering to the overall Economic Development Strategy of this Plan.									A likely positive effect on population is identified as a result of economic development and employment growth initiatives in Maynooth and Environs. An overall neutral environmental impact has been identified for this objective.
EDO 1.2	Encourage the development of existing enterprises in the town and promote new sectoral development opportunities for Maynooth and Environs, as identified in the Regional Spatial and Economic Strategy 2019 – 2031, whilst ensuring all such development takes place in a phased,									A positive impact on population and human health and material assets is predicted through the provision new sectoral employment opportunities.

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	sequential and sustainable manner which is co-ordinated by the two local authorities. Such designated employment lands will, notwithstanding exceptional circumstances, be protected from inappropriate development that would prejudice any long-term development for these uses.									There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage and landscape & visual at this stage of the development, as the scale of development is currently unknown. Refer to mitigation measures in Section 9.
EDO 1.3	Ensure that lands zoned for employment generating uses in Maynooth and Environs are developed in accordance with the principles of people-centred urban design and healthy placemaking, delivering high quality outcomes in terms of building design, use of materials and layout. Such development should also seek to incorporate both existing and new green and blue infrastructure features such as trees, hedgerows along with watercourses and waterbodies as an integral part any overall design scheme.									A positive impact on population and human health and material assets is predicted through the provision new sectoral employment opportunities. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage and landscape & visual at this stage of the development, as the scale of development is currently unknown. Refer to mitigation measures in Section 9.
EDO 1.4	Promote the development of Maynooth and Environs as a 'live-work' community in order to reduce unsustainable commuter patterns, particularly the dependency on the private car.									This objective is likely to result in a neutral impact on the environment, in general. Potential positive impacts have been identified for population and human health where, increased economic activity and employment are likely to be facilitated. Potential positive impacts have been identified for air and climate as it discourages urban sprawl and can potentially result in enhanced access to public transport facilities.
EDO 1.5	Ensure new enterprise and employment uses provide Workplace Travel Plans / Mobility Management Plans to reduce dependency on private modes of travel consistent with the principles set out in the National Transport Authority's guidance document for Local Authorities: 'Achieving Effective Workplace Travel Plans' (2013).									This objective is likely to result in a positive impact on population and human health as well as air, noise and climate through the provision and encouragement of sustainable transport in the Joint LAP study area.

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EDO 1.6	Engage with IDA Ireland and the Department of Enterprise, Trade and Employment in seeking to attract Foreign Direct Investment within the employment zoned lands to the west of Maynooth University and in Maynooth Environs (Moygaddy).									This objective will result in a positive impact on population and human health due to the provision of further employment opportunities. A neutral impact on the environment in general is anticipated.
EDO 1.7	Promote innovative economic sectors and encourage business clusters that exploit links, and transfer knowledge and skills to develop synergies with one another and with third level education institutions, including Maynooth University.									This objective is likely to result in a positive impact on population and human health and material assets in that it will ensure that there will be no strain on utilities in the area as a result of the synergies between different businesses.
EDO 1.8	Actively support the growth of Maynooth University in accordance with national policies on Higher Education, including the phased and plan-led development and expansion of its campus, subject to planning and environmental considerations.									Supporting the growth of Maynooth University will have a positive impact on population and human health.
EDO 1.9	Actively support Maynooth University's research-led activities, and in particular the role of MaynoothWorks in spearheading knowledge transfer, enterprise partnership and entrepreneurship innovation.									An overall likely neutral environmental effect is identified as a result of this objective. A positive effect on the population is likely however, as a result of spearheading knowledge transfer, enterprise partnership and entrepreneurship innovation.
EDO 1.10	Actively support the development of MakerCentral, a new integrated "makerspace" and low-cost pre-incubator for products and services to be developed under the auspices of MaynoothWorks in Maynooth University, subject to any planning and design considerations.									An overall likely neutral environmental effect is identified as a result of this objective.
EDO 1.11	Actively support the growth of St Patrick's College, Maynooth, including the appropriate development of its campus for education and mixed-use opportunities, subject to planning and environmental considerations.									A positive impact on population and human health and material assets is predicted through the provision new educational opportunities. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring.

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										It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage and landscape & visual at this stage of the development, as the scale of development is currently unknown. Refer to mitigation measures in Section 9.
EDO 1.12	Promote the provision of incubation/start-up units suitable for small businesses and start-up companies in general, and particularly within locations including the town centre, Maynooth University and St Patrick's College, Maynooth.									An overall neutral environmental effect is likely as a result of this objective. A positive effect on the population is likely however, as a result of increased employment.
EDO 1.13	Support and encourage 'living over the shop' initiatives, and the provision of ground floor live-work units and/or co-working spaces as part of mixed-use and residential developments in appropriate locations with access to high quality public transport and/or active travel routes, as a means of enlivening streets and to provide flexible accommodation for small businesses and remote working opportunities.									A likely positive effect on population is identified as a result of the potential provision of ground floor live-work units and co-working spaces through increased opportunities for small businesses in Maynooth. A likely positive effect on the landscape and visual amenity in Maynooth is also identified in that the initiative is set to enliven the streets and potentially rejuvenate previously derelict or poor-quality units. Potential positive impacts have been identified for air and climate as it discourages urban sprawl and can potentially result in enhanced access to public transport facilities. Overall neutral impacts have been assessed as likely to occur
										for biodiversity, water, land and soil, and material assets as living over the shop initiatives are unlikely to result in major development other than the regeneration of higher storey floor space in existing buildings, where existing services are likely to be incorporated into any such regeneration.
EDO 1.14	Facilitate home-working and other innovative forms of working which reduce the need to travel but are subordinate to the main residential use of the dwelling and do not result in a disamenity in an area.									An overall neutral environmental effect is likely as a result of this objective. A positive effect on the population is likely however, as a result of the provision of alternative working facilities. A likely positive effect on air quality, noise and climate is also identified in that home-working would reduce the level of commuting to/from Maynooth.

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EDO 1.15	Encourage the development of equine related enterprises on agricultural zoned lands within the Joint Local Area Plan boundary.									The development of equine related enterprises will have a positive impact on population and human health with regards to provision of employment opportunities. A neutral impact on the environment is predicted through increased employment in equine industries.
Tourism Objectives										
EDO 2.1	Promote and facilitate the development and upgrading of tourism infrastructure in Maynooth and Environs with particular emphasis on utilising and harnessing, in an appropriate and sustainable manner, the potential of the town's natural and built heritage assets to increase its overall attractiveness as a key tourism destination.									Increased tourism attractions and activities will have a positive impact on population due to increased revenue entering and circulating within Maynooth. An otherwise neutral environmental effect is identified.
EDO 2.2	Support the development of the Royal Canal Greenway and Canal Harbour as a multi-use tourism and amenity resource, subject to planning and environmental considerations.									Overall negative environmental impacts have been identified for this objective. The Royal Canal is a proposed Natural Heritage Area (Site code: 002103) and so any increased trampling, littering and or recreational activities in or within
EDO 2.3	Support and facilitate the development of Maynooth as a greenway destination town and an 'activity hub' for water-based activities and associated recreational uses, including safe and convenient mooring facilities, subject to the required planning and environmental assessments.									the surrounding areas may pose negative impacts on the environment. Positive impacts have been identified for population and human health and air, noise and climate, with the likelihood of increased recreational and economic activity and also for the promotion of active travel.
EDO 2.4	Support and facilitate the development of an integrated network of greenways, heritage/tourist trails and looped walks within the town centre, along the Royal Canal Greenway, Lyreen River, Ryewater River and the Blackhall Little Stream, subject to planning and environmental assessments.									
EDO 2.5	Encourage the sustainable development of alternative tourism activities including green/eco-tourism, religious tourism, agri-tourism, farmers' markets, as well as local									This objective is likely to result in a positive impact on population and human health through provision and enhancement of the amenity value of the area. As the forms of proposed activities are not fully defined at this time, it is not

Objective and or Policies	Aims / Commitments	SEA	\ Env	vironr	nenta	al Ob	jectiv	es .		SEA Commentary
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	and other craft type activities to diversify the overall tourism offering in Maynooth.									possible to fully ascertain the impacts of the same on water quality and biodiversity- aquatic biodiversity in particular. Increased green/eco-tourism may impact biodiversity.
EDO 2.6	Support the continued operation and appropriate development of Maynooth Castle, as a key tourist attraction, including the extension of its opening hours.									This objective is likely to result in a neutral impact on the environment, in general. A positive impact on population and human health is predicted through enhancement of tourism opportunities.
EDO 2.7	Support the continued operation and development of National Science and Ecclesiology Museum as a key tourist attraction, including the extension of its opening hours.									This objective is likely to result in a neutral impact on the environment, in general. A positive impact on population and human health is predicted through enhancement of tourism opportunities.
EDO 2.8	To encourage the sympathetic re-use or rehabilitation of Moygaddy House and outbuildings and encourage their sensitive conversion to residential or tourist accommodation or other appropriate use in accordance with the land use objective applicable to the lands.									An overall neutral environmental impact has been identified for this objective where, the sympathetic re-use or rehabilitation of Moygaddy House and outbuildings and the encouragement of their sensitive conversion to residential or tourist accommodation or other appropriate use, is likely to have minimal potential for negative impacts on the surrounding environment. Positive impacts have been identified for population and human health, landscape and visual and material assets where rehabilitation works, and the re-use of an existing building in the town is likely to have an overall positive impact to these areas. However, development must be sensitive to protect the architectural heritage of this building.
EDO 2.9	To facilitate the erection of bespoke bilingual signage (Irish and English) for tourism amenities throughout the town, including bilingual interpretative panels and directional signage along designated tourist trails.									This objective is likely to result in an overall neutral impact on the environment the erection of signage constitutes minor development. A positive impact on population and human health is envisaged through the enhanced identification and encouragement of use of tourism facilities and attractions throughout the town.
EDO 2.10	Support tourism initiatives including Fáilte Ireland's 'Ireland's Ancient East' tourism marketing platform which promotes Maynooth as a visitor destination.									This objective is likely to result in a neutral impact on the environment, in general.

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										Increased tourism attractions and activities will have a positive impact on population due to increased revenue entering and circulating within Maynooth.
EDO 2.11	Promote festivals and sporting events to increase the tourism, cultural and lifestyle profile of Maynooth including the use of appropriate green areas throughout the town.									This objective is likely to result in a neutral impact on the environment, in general. Increased tourism attractions and activities will have a positive impact on population due to increased revenue entering and circulating within Maynooth. As the forms of proposed activities are not fully defined at this time, it is not possible to fully ascertain the impacts on biodiversity particularly where trampling and large crowds on green areas are likely.
EDO 2.12	Facilitate the provision of a range of additional tourist accommodation types throughout Maynooth to facilitate the expansion of the tourism offering, taking cognisance of the vibrancy and vitality of Maynooth Town Centre.									There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. However, as the scale and location of this development is not fully known at this time, an uncertain effect has been identified for the purposes of this assessment. Although development is to take cognisance of the vibrancy and vitality of Maynooth Town Centre, uncertain impacts have been assessed for archaeological and cultural heritage, landscape and visual as the type, scale and location of the potential development has not been defined.
EDO 2.13	Support Maynooth in gaining and retaining a 'Purple Flag' status as a high-quality evening and night-time destination.									This objective is likely to result in a neutral impact on the environment, in general.
EDO 2.14	To continue to apply for funding from the relevant national sources to support the development of the projects/proposals outlined in Section 6.5.3 Tourism Development Opportunities.									As this objective relates to applying for funding, an overall neutral environmental effect is identified. Increased tourism attractions and activities will have a positive impact on population due to increased revenue entering and circulating within Maynooth.

Objective and or Policies	Aims / Commitments	SEA	A Env	vironi	nenta	al Ob	ojecti	ves		SEA Commentary
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Retail Objectives										
EDO 3.1	Protect and promote the vitality and viability of the Core Retail Area of Maynooth as illustrated in Figure 6.8, as the primary location for retail development, through the application of a sequential approach to retail development, in accordance with the Retail Planning Guidelines for Planning Authorities (DECLG, 2012) or any subsequent guidelines.									The protection and promotion of the vitality and viability of the Core Retail Area of Maynooth is likely to result in a positive effect on the population. An overall likely neutral effect on other environmental factors is identified in that it is assumed any development in the Core Retail Area will be infill/brownfield development or regeneration. An uncertain impact has been identified for heritage as Maynooth Town is inclusive to an Architectural Conservation Area (ACA).
EDO 3.2	Encourage the retention of the retail function of ground floor uses within the Core Retail Area identified in Figure 6.8 and carefully consider development which would individually or cumulatively undermine the primary use of the Core Retail Area for retail purposes taking cognisance of the need to address vacancy and the move towards 'experience-led' retailing.									This objective is likely to result in a neutral impact on the environment, in general. A positive impact on population and human health is envisaged through the provision and maintenance of a centralised retail core and the move to 'experience-led' retailing.
EDO 3.3	Support and facilitate the development of retail, retail services, independent retailers and niche retailing in the town centre area, including new/infill development and redevelopment of an appropriate scale.									The development of retail, retail services, independent retailers and niche retailing in the town centre area is likely to result in a positive effect on the population. An overall likely neutral effect on other environmental factors is identified in that it is assumed any development in the Core Retail Area will be infill/brownfield development or regeneration. An uncertain impact has been identified for heritage as Maynooth Town is inclusive to an Architectural Conservation Area (ACA).

Objective and or Policies	Aims / Commitments	SEA	\ En\	vironr	nenta	al Ob	jectiv	es		SEA Commentary
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EDO 3.4	Align, as far as is practicable, new retail development with existing and proposed public transport infrastructure and services and encourage access by active modes of travel (walking and cycling), in accordance with the 10-minute settlement principle.									The alignment of new retail development with existing and proposed transport infrastructure will have a positive impact on population and human health, as well as air quality and climate as it discourages urban sprawl and can potentially reduce traffic movements and encourages more sustainable transport methods.
EDO 3.5	Ensure the scale of retail development within neighbourhood centres shall reflect the size of the catchment population of the area it is intended to serve in order to provide for the immediate needs of local residents.									Overall, a potential neutral environmental impact has been identified with regards to this objective. Potential positive impacts have been identified relating to population and human health where local residents can have access to adequate food supplies.
EDO 3.6	Support the provision of accommodation for a high-quality regular farmers' market at a central and universally accessible location in Maynooth.									For the purpose of this assessment it is assumed that "provision of accommodation" entails the use of an existing building hence a neutral effect is envisaged for biodiversity, land and soil and water. Potential positive effect on the population, air and climate and material assets as a result of, increased economic activity in Maynooth. Potential uncertain impacts have been identified for archaeological, architectural, and cultural heritage and landscape and visual, as the type, scale and location of the development has not been defined.
EDO 3.7	Ensure that new shopfront and signage design within Maynooth (County Kildare) contributes positively to and enhances the streetscape and is in accordance with the guidance set out in the County Kildare Shopfront Guidelines (July 2013) and Kildare County Council Policy on Signage (April 2013).									A likely positive effect on landscape and visual amenity is identified as a result of the objective to ensure that new shopfront and signage design within contributes positively to and enhances the streetscape in Maynooth (County Kildare).
EDO 3.8	Encourage the upkeep of retail properties within Maynooth Town Centre through the application of Kildare County Council's Shopfront Improvement, Accessibility and Age Friendly Grant Scheme, or any successor of same.									A likely positive effect on landscape and visual amenity is identified as a result of the objective to encourage the upkeep of retail properties within Maynooth Town Centre through the application of the Shop Front Grant Scheme, or any successor of same.

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Sustainable Movemen	nt and Accessibility Objectives			_						
MATO 1.1	Adopt a 'whole journey approach' to delivering transport infrastructure in Maynooth, to ensure universal accessibility is integrated into all stages of a person's journey from starting point to destination. This includes making all footpaths, tactile paving, cycle paths, roads, pedestrian crossing points, greenways and bus stops / shelters fully accessible to older people, people with disabilities and people with young children.									A positive impact on population and human health is predicted through this approach as it's likely to ensure universal accessibility for all. As this approach is based on sustainable transport and active travel, it is likely to result in a positive impact on air, noise and climate. This objective is likely to result in a neutral impact on the environment, in general.
MATO 1.2	Support the implementation of the actions and outputs arising from any future Walkability Audit Report for Maynooth.									Overall, a potential neutral environmental impact has been identified with regards to this objective. It is assumed that any actions emanating from this future report will not relate to significant development
Walking, Permeabilit	ty and Cycling Objectives								•	
MATO 2.1	Support and promote the use of sustainable active transport modes in Maynooth and seek to implement a connected network of active travel infrastructure in the town as detailed in Tables 7.2, 7.3 and 7.4 and illustrated on Maps 7.1 and 7.2, in conjunction with the National Transport Authority, and other relevant stakeholders. The indicative measures will form the basis for individual projects. Each project will be subjected to a detailed design process, including environmental and/or ecological assessment, where applicable. All measures shall incorporate nature-based surface water management drainage solutions.									Through maximising connectivity for pedestrians and cyclists, a positive impact on population and human health and air, noise and climate is anticipated through increased sustainable transport opportunities. It is assumed that the connected network of walking and cycling infrastructure in the town here refers to pedestrian and cyclist links, which constitute minor development. A neutral impact on the environment is therefore anticipated. The measures included in Table 7.2 and Table 7.3 and illustrated in Map 7.1 and Map 7.2 of the draft Joint LAP have been assessed at high-level in this assessment table.
MATO 2.2	Ensure that all development allows for universally accessible connectivity for active travel modes to adjacent lands in accordance with the National Transport Authority's Permeability Best Practice Guide (2015) or any updated version of same.									Through maximising connectivity for pedestrians and cyclists, a positive impact on population and human health and air noise and climate is anticipated through increased sustainable transport opportunities.

Objective and or Policies	Aims / Commitments	SEA	\ Env	rironr	nenta	al Ob	jectiv	es		SEA Commentary
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MATO 2.3	To work with the National Transport Authority (NTA) to implement the updated Greater Dublin Area Cycle Network Plan (2022) proposals for Maynooth, subject to detailed engineering design and any mitigation measures presented in the Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA) accompanying the NTA Plan.									Through maximising connectivity for pedestrians and cyclists, a positive impact on population and human health and air noise and climate is anticipated through increased sustainable transport opportunities.
MATO 2.4	Continue to work with Waterways Ireland to progress the completion of the Royal Canal Greenway route by 2025.									Overall, a potential negative environmental impact has been identified with regards to this objective. The Royal Canal is a proposed Natural Heritage Area (Site code: 002103) and so any increased trampling, littering and or recreational activities in or within the surrounding areas may pose negative impacts on the environment. Positive impacts have been identified for population and human health and air, noise and climate, with the likelihood of increased recreational and economic activity and also for the promotion of active travel.
MATO 2.5	Seek to improve and promote looped walks, including heritage walks, in conjunction with Slí na Sláinte, Waterways Ireland and other relevant bodies recognising them as important health and recreation infrastructure within the town.									A positive impact on population and human health as well as air noise and climate are predicted through the improvement and promotion of walkways. The improvement and promotion of these walkways is expected to have a neutral impact on other aspects of the environment as pedestrian infrastructure is likely to constitute minor development. An uncertain effect on biodiversity is identified however, as any new looped walks may impact previously untouched biodiversity.
Public Transport Ob	jectives			•						
MATO 3.1	Support sustainable mobility within Maynooth by focusing people-intensive land uses around existing and planned public transport nodes, and along existing and planned high-capacity public transport corridors.									It is not possible to ascertain whether this objective relates to greenfield development, or development on already zoned or developed lands. As such an 'unknown' impact is predicted. A positive impact on population and human health and air, noise and climate is likely to occur through the provision of residential or employment opportunities in close proximity to sustainable transport nodes.

Objective and or Policies	Aims / Commitments	SEA	A Env	rironn	nenta	al Ob	jectiv	es		SEA Commentary
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MATO 3.2	Actively engage and co-operate with the Department of Transport, National Transport Authority (NTA), Transport Infrastructure Ireland (TII), Irish Rail, Local Link and other stakeholders to improve the provision of public transport in Maynooth, including the implementation of the measures outlined in Table 7.5 and illustrated on Map 7.3 of this Joint Plan.									Engaging and co-operating with the Department of Transport, National Transport Authority (NTA), Transport Infrastructure Ireland (TII), Irish Rail, Local Link and other stakeholders to improve the provision of public transport in the town is likely to result in positive impacts on population and human health and air and climate as no major development is anticipated as a result of these measures. The measures included in Table 7.5 and illustrated on Map 7.3 of the draft Joint LAP have been assessed at high-level in this assessment table.
MATO 3.3	Support the ongoing roll-out of the BusConnects programme in Maynooth and support any potential expansion in BusConnects routes which would serve new and expanding areas of Maynooth including Maynooth West and Moygaddy.									Through maximising connectivity for public transport, a positive impact on population and human health and air, noise and climate is anticipated through increased sustainable transport opportunities. Supporting the ongoing roll-out of the BusConnects programme in Maynooth and supporting any potential expansion in BusConnects routes is unlikely to result in negative impacts on the surrounding environment. As such a neutral impacts is envisaged on the environment, in general.
MATO 3.4	Support retaining the C4 Dublin Bus route service to/from Maynooth, in the interests of promoting greater levels of connectivity and sustainable mobility in the town.									Through maximising connectivity for public transport, a positive impact on population and human health and air, noise and climate is anticipated through increased sustainable transport opportunities.
MATO 3.5	Support the delivery of the DART+ West services in Maynooth, including the development of ancillary supporting infrastructure, subject to planning and environmental considerations.									Through maximising connectivity for public transport, a positive impact on population and human health and air, noise and climate is anticipated through increased sustainable transport opportunities and lowered emissions. Supporting the delivery of the DART+ West services in Maynooth is unlikely to result in negative impacts on the surrounding environment. A neutral impact is envisaged on the environment as it is assumed ancillary development will entail only minor development.
MATO 3.6	Support and facilitate the National Transport Authority and Irish Rail in delivering a second train station to the									Any new development- especially the proposed new station has the potential to give rise to negative environmental effects.

Objective and or Policies	Aims / Commitments	SEA	A Env	vironr	nenta	al Ob	jectiv	res		SEA Commentary
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	west of Maynooth, including the development of ancillary supporting infrastructure, subject to planning and environmental considerations.									Refer to mitigation measures in Section 9 of this report. The implementation of these measures however is likely to result in a positive effect on the population, air and climate and material assets as a result of enhanced public transport facilities. Potential uncertain impacts have been identified for archaeological, architectural, and cultural heritage and landscape and visual, as size, scale and location of the train station is currently unknown.
Roads and Streets Ne	twork Objectives									
MATO 4.1	 (a) Maintain and improve, as required, the local road network to ensure a high standard of road quality and safety in accordance with the requirements of the Design Manual for Urban Roads and Streets (DMURS) or any subsequent guidelines. (b) Safeguard the development and carrying capacity of the national road infrastructure along the existing M4 Motorway and associated Junction 7, in accordance with the Spatial Planning and National Roads Guidelines for Planning Authorities (DoECLG, 2012) or any subsequent guidelines. 									Through providing the maintenance and improvement, as required, of the local road network to ensure a high standard of road quality and safety in accordance with the requirements of the Design Manual for Urban Roads and Streets (DMURS) or any subsequent guidelines, also safeguarding the development and carrying capacity of the national road infrastructure along the existing M4 Motorway and the associated Junction 7, positive impacts on population and material assets are anticipated through increased safety and quality of transport infrastructure. For the purposes of this assessment, it is not anticipated that development will be likely to occur as a result of this objective and thus overall neutral impacts have been assessed.
MATO 4.2	Ensure the implementation of the road measures outlined in Table 7.6 and illustrated on Map 7.4, in accordance with the DMURS standards for urban roads and streets and where necessary preserve the identified routes free from development. All road measures shall incorporate nature-based surface water management drainage solutions.									Through providing the maintenance and improvement, as required, of the local road network to ensure a high standard of road quality and safety in accordance with the requirements of the Design Manual for Urban Roads and Streets (DMURS) or any subsequent guidelines, a positive impact on population is anticipated through increased safety and quality of transport infrastructure. For the purposes of this assessment, it is not anticipated that development will be likely to occur as a result of this objective and thus overall neutral impacts have been assessed.

Objective and or Policies	Aims / Commitments	SEA	SEA Environmental Objectives S							SEA Commentary
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										Water is identified as having potential positive impacts as this objective details all road measures shall incorporate nature-based surface water management as a solution for surface water management.
MATO 4.3	Support and prioritise the development of the Maynooth Eastern Ring Road (MERR) within the life of the Joint Plan.									Any new development especially proposed new roads have potential to give rise to negative environmental effects. Refer to mitigation measures in Section 9 of this report. The implementation of this objective however is likely to result in a positive effect on the population and material assets as a result of enhanced transport facilities.
MATO 4.4	Support the phased delivery of the Maynooth Outer Orbital Road (MOOR), subject to planning and environmental considerations.									Any new development especially proposed new roads have the potential to give rise to negative environmental effects. Refer to mitigation measures in Section 9 of this report The implementation of these measures however is likely to result in a positive effect on the population and material assets as a result of enhanced transport facilities.
MATO 4.5	Support and facilitate the delivery of the M4 Maynooth-Leixlip Project, subject to planning and environmental considerations.									Any new development especially proposed new roads have the potential to give rise to negative environmental effects. Refer to mitigation measures in Section 9 of this report. The implementation of these measures however is likely to result in a positive effect on the population and material assets as a result of enhanced transport facilities.
MATO 4.6	Ensure that the new southern access route to Leinster Street from Parson Street (Measure RD 7) is developed as an urban street that incorporates a high quality and peoplecentred public realm and is addressed and delineated by building frontages, as far as practicable.									Any new development especially proposed new roads have the potential to give rise to negative environmental effects. Refer to mitigation measures in Section 9 of this report. The implementation of these measures however is likely to result in a positive effect on the population and material assets as a result of enhanced transport facilities.

Objective and or Policies	and or Aims / Commitments SEA Environmental O						jectiv	/es		SEA Commentary
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MATO 5.1	Support and facilitate the implementation of the preferred car parking measures, as outlined in Table 7.7 and illustrated on Map 7.5 of this Joint Plan.									A positive impact on population and human health, and air noise and climate are predicted through the provision of sustainable transport facilities. Provision of car parking constitutes development of a minor scale, a neutral impact on other aspects of the environment is therefore anticipated.
MATO 5.2	Apply the cycle parking and car parking standards in the Kildare and Meath County Development Plans (as applicable), and relevant Section 28 Guidelines, to all planning applications within the plan area, with the exception of those sites identified for no-car or low-car developments under MATO 5.3.									This is existing policy, and therefore represents the baseline situation. A neutral environmental impact is envisaged.
MATO 5.3	Provide for car-free or low car developments in 'Centre and Urban Neighbourhood' locations and 'Accessible Suburban / Urban Extension Locations' within Maynooth, as defined in the Sustainable Residential Development and Compact Settlements, Guidelines for Planning Authorities (DHLGH, 2024).									The provision of car-free or low-car zones is likely to result in a positive effect on air quality and climate. Positive effects on population are likely to occur from the provision of a safe walkable neighbourhood centre, with improved air quality and streetscapes. Otherwise, neutral environmental effects are identified.
MATO 5.4	Provide appropriate, secure and sheltered bicycle parking facilities subject to demand analysis, at appropriate locations at: • Maynooth Town Centre • Designated neighbourhood centres • Adjacent to heritage, community and amenity destinations									A positive impact on population and human health, and air noise and climate are predicted through the provision of sustainable transport facilities. Provision of bicycle parking constitutes development of a minor scale, a neutral impact on other aspects of the environment is therefore anticipated.
MATO 5.5	Support the provision of charging infrastructure for electric vehicles (EVs) on public and private land in accordance with County Development Plan standards.									A positive impact on population and human health, and air noise and climate are predicted through the provision of sustainable transport facilities. Provision of charging infrastructure constitutes development of a minor scale, a neutral impact on other aspects of the environment is therefore anticipated.
MATO 5.6	Engage with Zero Emissions Vehicles Ireland (ZEVI) and local stakeholders to prepare an EV Charging and									A positive impact on population and human health, and air noise and residential area charging climate are predicted

Objective and or Policies	Aims / Commitments	SEA	SEA Environmental Objectives							SEA Commentary
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	Implementation Plan to focus primarily on provision of residential area charging networks.									through the likely provision of residential area charging networks. Provision of charging infrastructure constitutes development of a minor scale, a neutral impact on other aspects of the environment is therefore anticipated.
MATO 5.7	Require developers of Large Scale Residential Developments (of 100 units or more) or residential schemes located within 800 metres of high capacity public transport routes (i.e., existing or planned train stations and BusConnects stops) to provide reserved space for Car Sharing Schemes									A positive effect on population and air quality and climate is predicted from the implementation of Car Sharing Scheme.
Protected Structure (Dbjectives									
ВНО 1.1	Safeguard the architectural heritage of Maynooth and Environs by ensuring the protection and conservation of all protected structures (or parts of structures) including the curtilage and attendant grounds of structures detailed in Table 8.1, Map 8.1 and Map 8.2 or any additional structure placed on the Record of Protected Structures of the Kildare County Development Plan and the Meath County Development Plan.									This objective is likely to result in a neutral impact on the environment in general, and a positive impact on heritage through increased conservation and protection efforts.
BHO 1.2	Support the sensitive conservation of protected structures, their curtilage and attendant grounds, and to operate flexibility with regard to the use of these buildings to facilitate their ongoing use, subject to best practice conservation principles.									This objective is likely to result in a neutral impact on the environment in general, and a positive impact on heritage through increased conservation and protection efforts.
ВНО 1.3	Strongly resist the demolition of any structure (or parts of any structure) that is registered on the National Inventory of Architectural Heritage (NIAH) unless, on the basis of evidence provided as part of any planning application, the local authority is satisfied that exceptional circumstances exist.									This objective is likely to result in a neutral impact on the environment in general, and a positive impact on heritage through increased conservation and protection efforts.

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BHO 1.4	Support the sensitive and appropriate development of Maynooth Castle and Moygaddy Castle as important tourism and heritage assets for the town.									This objective is likely to result in a neutral impact on the environment in general, and a positive impact on heritage through increased conservation and protection efforts. A positive impact on population and human health is predicted through increased tourism and commercial opportunities.
BHO 1.5	Support the sensitive and appropriate development of St Patrick's College campus taking into full consideration its location within and adjacent to Maynooth Architectural Conservation Area, along with the concentration of protected structures on the college grounds. Any significant development proposals are required to be accompanied by an Architectural Heritage Impact Assessment, as per the requirements of Appendix B of the Architectural Heritage Protection – Guidelines for Planning Authorities (2011).									This objective is likely to result in a positive impact on landscape and visual and architectural, archaeological and cultural heritage through maintenance of the character, Architectural Conservation Area and protection efforts from inappropriate development. Otherwise, an overall neutral impact has been identified for this objective.
Maynooth Architectu	ral Conservation Area Objectives									
BHO 2.1	Preserve the character of the designated Maynooth Architectural Conservation Area (ACA) by ensuring that new development, extensions, renovation works and infill development within or adjacent to the ACA is sympathetic to the distinctive character of the area and enhances the special character and visual setting of the ACA including <i>inter alia</i> vistas, streetscapes, established building lines, fenestration patterns and architectural features.									Protection of Architectural Conservation Areas will positively impact heritage in Maynooth Town Centre. The publication of a Statement of Character and the reference to such will further promote conservation the heritage of Maynooth Town Centre. This enhancement of the ACAs will positively impact the landscape and visual aspect of Maynooth Town Centre.
	Proposals for development shall include an analysis of how the new development complements the setting, character and appearance of the Maynooth ACA referring to the findings of the ACA Statement of Character (2023) and the Architectural Heritage Protection Guidelines for Planning Authorities (DoAHG, 2011) (including 'Advice Series').									
ВНО 2.2	Encourage the sensitive restoration and enhancement of shopfronts and signage of architectural merit or heritage									A likely positive effect on landscape and visual amenity is identified as a result of the objective to ensure new shop front

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	value, and promote the replacement of inappropriate shopfronts and signage, within the Maynooth Architectural Conservation Area having regard to the Statement of Character (Appendix C) and the Kildare Shopfront Guidelines. Proposals for new shopfronts and signage, contemporary or traditional, will be required to respond positively to the proportions of the building and complement the character of the area in terms of design, detail, lighting and materials. Such applications will be required to include a study of the overall façade and include proposals to remove visually intrusive elements (inappropriate signage, lighting, cables, ducts) and to reinstate historical features where appropriate. The use of the Irish language within signage should be considered.									and signage design contributes positively and enhances the streetscape in Maynooth. Visually intrusive elements and unnecessary clutter on existing shopfront / façades / commercial premises can negatively impact the cultural heritage and landscape and visuals of an area. Removal of these elements is likely to result in positive impacts on AA&CH and L&V. Otherwise, overall neutral environmental impacts have identified for this objective.
ВНО 2.3	Seek to protect and enhance all important views within Maynooth Architectural Conservation Area (ACA) as illustrated in Figure 8.2 by requiring a Visual Impact Assessment for developments which have the potential to impact on the character, value or sensitivity of the ACA. Where it is considered that a development may impact on a protected view, proposals must have regard to the significance of any such impact and incorporate appropriate mitigation measures.									This objective is likely to result in a positive impact on landscape and visual, architectural, archaeological and cultural heritage and population and human health through maintenance of the character, Architectural Conservation Area and amenity value within the Joint LAP study area. Otherwise, an overall neutral impact has been identified for this objective.
BHO 2.4	Require careful consideration of urban development within or adjoining the Architectural Conservation Area ensuring that the design rationale and the overall site context act as the main driver for the overall scale, mass, height and design in order to achieve the most appropriate development in sensitive areas.									This objective is likely to result in a positive impact on landscape and visual and architectural, archaeological and cultural heritage through maintenance of the character, conservation areas and amenity value of the Joint LAP study area from inappropriate development. Otherwise, an overall neutral impact has been identified for this objective.
BHO 2.5	Reduce, prevent and encourage the removal of visual and urban clutter within the Architectural Conservation Area including: Excessive traffic management structures and related signage									This objective is likely to result in a positive impact on population and human health, landscape and visual as well as heritage in that it will reduce the street clutter in the town centre and improve the urban realm.

Objective and or Policies	Aims / Commitments	SEA	\ En\	/ironr	nenta	al Ob	jectiv	es		SEA Commentary
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	 Utility structures and signage Commercial related signage (including signs protruding from the façade) at ground and upper floor levels Obsolete/unnecessary lighting, electrics, cables, ducts External roller shutters and shutter boxes Internally affixed stickers and internally illuminated signage, where planning permission is required. 									
BHO 2.6	Seek appropriate high quality screening measures where the provision of above ground utility boxes/structures within the Architectural Conservation Area is deemed unavoidable.									This objective is likely to result in a positive impact on population and human health, landscape and visual as well as heritage in that it will reduce the visual impact of street clutter in the town centre and improve the urban realm.
ВНО 2.7	Proactively address dereliction, endangerment, neglect and vacancy in the town centre, particularly within its network of back lanes, through the application of the Derelict Sites Act 1990 and the Residential Zoned Land Tax as well as through the promotion of appropriate uses and the sensitive conservation of historic buildings, in conjunction with other relevant initiatives.									This objective is likely to result in a neutral impact on the environment in general, and a positive impact on heritage through increased conservation and protection efforts and landscape and visual through improvements to the public realm. A positive impact on population and human health is predicted through provision of new commercial or residential opportunity in the town centre.
ВНО 2.8	Seek the preparation and implementation of heritage-led regeneration plans (including for the public realm) within the Architectural Conservation Area through relevant funding sources, including the Historic Towns Initiative and the Urban Regeneration and Development Fund (URDF).									This objective is likely to result in a neutral impact on the environment in general, and a positive impact on heritage through increased conservation and protection efforts. A positive impact on population and human health as well as landscape and visual is anticipated through the implementation of heritage led regeneration plans for the town centre.
BHO 2.9	Provide for the protection and enhancement of Carton Avenue along with the adjoining area, including its historic field boundaries, that are contained within the Maynooth ACA.									This objective is likely to result in a positive impact on population and human health, heritage and landscape and visual through the protection and enhancement of Carton Avenue.

Objective and or Policies	Aims / Commitments	SEA	\ Env	rironn	nenta	al Obj	jectiv	es		SEA Commentary
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Archaeological Herit	age Objectives	•		•				•	•	
вно 3.1	Protect and promote the archaeological heritage of Maynooth and Environs, in particular those sites illustrated on Map 8.1 and Map 8.2 and listed in Table 8.3, and avoid negative impacts on sites, monuments, features or objects of significant historical or archaeological interest by ensuring archaeological assessments are undertaken to inform proposed development in accordance with the National Monuments Acts 1930–2014 or the Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023 (when fully commenced).									This objective is likely to result in a neutral impact on the environment in general, and a positive impact on archaeological heritage through increased conservation and protection efforts.
ВНО 3.2	Prioritise the protection/preservation in situ (or upon agreement preservation by record) of items of archaeological interest as listed in Table 8.3 and shown on Map 8.1 and Map 8.2 from inappropriate development that would adversely affect and/or detract from the interpretation and setting of these sites.									This objective is likely to result in a neutral impact on the environment in general, and a positive impact on archaeological heritage through increased conservation and protection.
ВНО 3.3	Protect the historic core of Maynooth and retain, except in exceptional circumstances, the existing street layout, historic building lines and traditional plot widths where these derive from 18 th Century or earlier origins.									This objective is likely to result in a neutral impact on the environment in general, and a positive impact on heritage through increased conservation and protection efforts and landscape and visual through maintenance of the historic core of Maynooth.
ВНО 3.4	Encourage, where practicable, the provision of public access to sites identified on the Sites and Monuments Record under the direct ownership or control of the Local Authority and the State.									This objective is likely to result in a neutral impact on the environment, in general. A positive impact on population and human health is envisaged through promoting economic activity and tourism.
ВНО 3.5	Provide for the protection of historic burial grounds within Maynooth, in co-operation with agencies such as the Office of Public Works and the National Monuments									This objective is likely to result in a neutral impact on the environment in general, and a positive impact on heritage through increased conservation and protection efforts.

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	Section of the Department of the Housing, Local Government and Heritage.									
ВНО 3.6	Support the protection, preservation and promotion of the archaeological value of underwater or archaeological sites within the Plan area including any associated with the River Lyreen, Rye Water River, the Royal Canal and associated features.									This objective is likely to result in a neutral impact on the environment in general, and a positive impact on heritage through increased conservation and protection efforts.
Natural Heritage and	l Biodiversity Objectives									
GBIO 1.1	Protect, conserve and manage the Rye Water Valley / Carton SAC by ensuring that screening for Appropriate Assessment (AA), in accordance with Article 6(3) of the Habitats Directive is carried out with respect to any plan or project, including masterplans.									Measures relating to the protection and conservation of biodiversity and protected sites are likely to result in a positive effect on biodiversity, land and soil, water, air quality, noise and climate.
GBIO 1.2	Ensure that any proposal for development within or adjacent to the Royal Canal pNHA is located and designed to minimise its impact on the biodiversity, geological, water, landscape and amenity value of the pNHA.									Measures relating to the protection and conservation of biodiversity- including habitats, species, stepping-stones etc. are likely to result in a positive effect on biodiversity, land and soil, water, air quality, noise and climate and landscape and visual.
GBIO 1.3	Support the full implementation of the targets and actions outlined in the Maynooth Biodiversity Action Plan 2023–2028 and any subsequent or amended Plan prepared for Maynooth.									An overall positive environmental impact has been identified in supporting the full implementation of the Maynooth Biodiversity Action Plan 2023-2028. Neutral impacts are anticipated otherwise.
GBIO 1.4	Require that expert advice is sought from a suitably qualified bat expert, in developing lighting proposals along river and stream corridors or other important locations or corridors for wildlife, to mitigate impacts of lighting on bats and other species. The use of artificial lighting shall be avoided in streamside zones and artificial lighting should be restricted unless absolutely necessary in the middle zone, as illustrated in 'Planning for Watercourses in the Urban Environment' (pp.8-9) (Inland									Measures relating to the protection and conservation of biodiversity and protected sites are likely to result in a positive effect on biodiversity, land and soil, water, air quality, noise and climate and landscape and visual.

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	Fisheries Ireland, 2020). LEDs should, where permitted, be warm white in colour to minimise disturbance to wildlife.									
GBIO 1.5	Ensure that development along urban watercourses must comply with the Inland Fisheries Ireland Guidance 'Planning for Watercourses in the Urban Environment' (2020), including the maintenance of a minimum riparian zone of 35 metres for river channels greater that 10 metres in width, and 20 metres for watercourses less than 10 metres in width, including the Royal Canal. Development within this zone will only be considered for water compatible developments. Strategic green routes and trails will only be open for consideration within the extremities of the biodiversity protection zone away from the waterbody, subject to appropriate safeguards and assessments.									Measures relating to the protection and conservation of biodiversity- including habitats, species, stepping-stones etc. are likely to result in a positive effect on biodiversity, land and soil, water, air quality, noise and climate and landscape and visual.
Green and Blue Infra	astructure Objectives									
GBIO 2.1	Protect and enhance identified key Green and Blue Infrastructure (Map 9.1) and stepping-stone habitats and prohibit developments that would fragment or otherwise degrade the Green and Blue Infrastructure network. New developments shall appropriately utilise existing and new green infrastructure as an essential urban design and placemaking tool to integrate built form into their surrounding contexts. Site specific ecology surveys should be carried out to inform proposed development and assess and mitigate potential ecological impacts.									Measures relating to the protection and conservation of biodiversity - including habitats, species, green infrastructure, stepping-stones etc. are likely to result in a positive effect on biodiversity, land and soil, water, air quality, noise and climate and landscape and visual.
GBIO 2.2	Ensure that all development proposals on sites where hedgerows and treelines are located (identified in Map 9.1) are retained and fully integrated as a focal point of the development in the first instance. In exceptional circumstances, where they are demonstrably required to be removed, development proposals shall be accompanied by a planting scheme of similar quantity and species mix to ensure no net biodiversity loss over the longer term.									This objective is likely to result in a neutral impact on the environment in general. Potential positive impacts on human health, air quality and biodiversity are identified in retaining or integrating these areas and or, where in exceptional circumstances, removal is required, ensuring development proposals are accompanied by a planting scheme of similar quantity and species mix to ensure no net biodiversity loss. Potential positive impacts on landscape and visual are also

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										anticipated through protecting, retaining and integrating green areas in Maynooth.
GBIO 2.3	Require proposals for development to demonstrate how they protect and integrate/respond to Green and Blue Infrastructure and include measures to protect and enhance such Green and Blue Infrastructure during construction periods.									Green infrastructure is a broad concept, and includes natural features, such as parks and hedgerows as well as man-made features, such as cycle paths. It is not possible to ascertain the type of green infrastructure being proposed here. Most natural green infrastructure features are likely to result in a positive impact on biodiversity and water, through species and habitat provision, while often man-made features such as greenways can result in a negative impact on existing biodiversity or surface water quality through increased human interaction. Either type of green infrastructure - man made or natural is likely to result in a positive impact on air quality, noise and climate. The provision of natural features will benefit air quality through the provision of additional trees and greenery, and the provision of man-made features such as cycle track will result in increased sustainable transport opportunities in the Joint LAP study area. Green infrastructure is also positive from a landscape and visual perspective.
GBIO 2.4	Ensure new development proposals have regard to the future function and variety of open spaces with a view to making provision for new areas of biodiversity, tree planting and/or pollinator friendly planting.									The provision of open spaces is likely to result in an overall positive effect population and human health, biodiversity, landscape and visual.
GBIO 2.5	Support and facilitate the creation of a linear park along the Lyreen and Rye Water Rivers on lands zoned F: Open Space and Amenity and High Amenity (Moygaddy, County Meath) over the medium to long term, and ensure that all landscaping schemes contribute to the enhancement of the corridor as a significant Green and Blue Infrastructure asset in the town.									Overall, a potential negative environmental impacts has been identified with regards to this objective. Any increased trampling, littering and or recreational activities in or within the surrounding areas of Lyreen and Rye Water Rivers may pose negative impacts on the environment. The creation of a linear park is likely to result in a positive effect on population and human health and air, noise and climate through the provision of additional open spaces for recreational activities and also for promotion of active travel.
GBIO 2.6	Ensure that the existing trees on Main Street and Carton Avenue are maintained and retained. In circumstances, whether through disease or damage, they are									Measures relating to the protection and conservation of biodiversity- including habitats, species, green infrastructure, stepping-stones etc. are likely to result in a positive effect on

Objective and or Policies	Aims / Commitments	SEA	A Env	vironr	nenta	al Ob	jectiv	es		SEA Commentary
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	demonstrably required to be removed due to public safety, they be replaced with similar species (i.e. Lime trees) in order to maintain the ecological integrity of this important Green Infrastructure feature whilst also protecting the established character of Maynooth Architectural Conservation Area.									biodiversity, land and soil, water, air quality, noise and climate and landscape and visual.
GBIO 2.7	Support the preparation of a Conservation Plan and a Masterplan for Kildare County Council owned lands at Carton Avenue and ensure that they integrate measures (as outlined in Section 9.8) to enhance the existing Green and Blue Infrastructure of the area.									Whilst the preparation of a Conservation Plan is positive, it is unclear what the impacts of implementing the Masterplan may be on the environment, as it implies development will occur. An overall uncertain environmental effect is therefore identified.
GBIO 2.9	Encourage the integration of innovative Green and Blue Infrastructure features, including rain gardens, bioretention beds, filter strips and green roofs into the design of new developments in Maynooth.									Measures relating to the protection and conservation of biodiversity- including habitats, species, green and blue infrastructure, stepping-stones etc. are likely to result in a positive effect on biodiversity, population and human health, land and soil, water, air quality, noise and climate and landscape and visual.
GBIO 2.10	Incorporate items of historical or heritage importance within the Green and Blue Infrastructure network as amenity features, where practical.									This objective is likely to result in uncertain impacts on heritage/historical importance in the area as there is potential for these areas to be positively and or negatively impacted upon, through increased human interaction.
Water Supply and W	astewater Objectives									
IO 1.1	Work in conjunction with Uisce Éireann to promote and facilitate the provision of adequate water and wastewater infrastructure, including the Maynooth Wastewater Transfer Pipeline, to ensure that such infrastructure is provided prior to, or in tandem with new development in accordance with the Implementation and Infrastructure Delivery Schedule (Section 11.5, refers).									Any new development, particularly facilitating the provision of adequate water and wastewater infrastructure, has the potential to give rise to negative environmental effects. Refer to mitigation measures in Section 9 of this report. The implementation of these measures is, however, likely to result in a positive effect on population and human health and material assets as a result of enhanced waste water services. Potential uncertain impacts have been identified for archaeological, architectural, and cultural heritage, as size, scale and location of development is currently unknown.

Objective and or Policies Aims / Commitments S					nenta	al Ob	jectiv	ves		SEA Commentary
		Р & НН	Bio	L&S	Wat	AQ, C & N	AA & CH	L & V	MA	
IO 1.2	Maximise the sustainable and efficient use of existing capacity in water services in the planning of new development and support Uisce Éireann in reducing rates of leakage to minimise the demand for capital investment.									Protection of existing water infrastructure will positively impact both the population and human health and material assets of Maynooth.
IO 1.3	Ensure that surface run-off does not discharge to the existing wastewater treatment infrastructure in Maynooth and Environs so that developments do not have a negative impact on the capacity of the wastewater treatment network.									Ensuring that there is no negative impact on the capacity of the wastewater treatment network from surface water run-off management is likely to result in a positive effect on population and material assets.
Surface Water and G	Ground Water Objectives									
IO 2.1	Protect surface waterbodies and groundwater aquifers from deterioration and maintain, or where necessary, improve their quality over the period of the Joint Plan and beyond.									This objective is likely to result in a positive impact on the environment in general through the protection and conservation of natural resources.
IO 2.2	Incorporate nature-based water drainage solutions as part of all plans and projects in the plan area. Proposals for new development shall align with the Maynooth and Environs Surface Water Strategy (that accompanies this plan) and the Kildare County Council Sustainable Drainage Systems Guidance Document 2024 (for projects within County Kildare).									This objective is likely to result in a positive impact on the environment, in general. Nature-based water drainage solutions can be designed to improve the biodiversity and provide the opportunity for habitat enhancement of an area, as well as improving water quality and controlling water quantity. They also reduce the possibility of flooding in an area and contribute to the successful overall running of utilities in an area.
IO 2.3	Ensure areas indicated as Nature-Based Management Areas (NBMAs) on Map 10.1 are reserved free from development and integrated into design proposals for nature-based surface water drainage purposes.									This objective is likely to result in a positive impact on the environment, in general. Ensuring areas indicated as Nature-Based Management Areas (NBMAs) on Map 10.1 are reserved free from development and integrated into design proposals for nature-based surface water purposes.
IO 2.4	Pursue opportunities within the Railpark area to divert surface water drainage away from the town centre by developing a surface water drainage network which discharges into the Rye Water River down stream of Maynooth, subject to Appropriate Assessment (AA).									Any new development, particularly development of a new surface water drainage networks with outfall to the Rye Water Valley SAC, has the potential to give rise to negative environmental effects. Refer to mitigation measures in Section 9 of this report. The implementation of these measures is, however, likely to result in a positive effect on material assets

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										and population and human health as a result of the diversion of surface water away from the town centre.
IO 2.5	Support Uisce Eireann's Maynooth Surface Water Separation programme to alleviate system surcharge and facilitate additional foul network capacity.									This objective is likely to result in positive effects on population, water and material assets through improved surface water and foul network facilities. An otherwise neutral environmental effect is identified.
IO 2.6	Identify opportunities to integrate nature based surface water management objectives in Local Authority-led projects.									This objective is likely to result in a positive impact on the environment in general through the integration of nature based surface water management objectives in Local Authority-led projects.
Flood Risk Managem	ent Objectives									
IO 3.1	Manage flood risk in Maynooth and Environs in conjunction with the Office of Public Works, and in accordance with the requirements of <i>The Planning System and Flood Risk Management Guidelines for Planning Authorities</i> , DECLG and OPW (2009) and Circular PL02/2014 (August 2014).									The management of flood risk in Maynooth and Environs will result in an overall positive environmental effect.
IO 3.2	Ensure development proposals within the areas where Kildare County Council and Meath County Council have applied a Justification Test and where residual flood risk remains as outlined on the Flood Risk Map (Map Ref. 2) are the subject of a Site-Specific Flood Risk Assessment, appropriate to the nature and scale of the development proposed.									A beneficial effect on population and material assets has been identified due to the preparation of Site-Specific Flood Risk Assessments (FRA) for developments located within areas where Kildare County Council and Meath County Council have applied a Justification Test and where residual flood risk remains as outlined on the Flood Risk Map (Map Ref. 2). Otherwise, neutral impacts are anticipated.
IO 3.3	Maintain all existing overland flow routes.									This is the existing scenario and as such, an overall neutral environmental effect is identified.
IO 3.4	Support and co-operate with the OPW in augmenting the Lyreen and Meadowbrook Flood Relief Scheme and in carrying out other minor flood relief works within Maynooth, subject to the statutory environmental considerations.									Lyreen and Meadowbrook Flood Relief Scheme is existing, and therefore represents the baseline situation in Maynooth. A neutral environmental impact is envisaged.
Energy and Commun	ication Infrastructure Objectives									

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives SE						/es		SEA Commentary
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IO 4.1	Support the statutory providers of electricity and gas infrastructure by safeguarding existing infrastructure and strategic corridors from encroachment by development that might compromise the operation, maintenance and provision of energy networks.									While safeguarding existing infrastructure and strategic corridors from encroachment by development has the potential to result in a positive impact on population and human health, through maintenance of energy provision, there is also the potential for a negative impacts in that the safeguarding of strategic corridors might hinder the progression of other forms of development such as residential or commercial. Thus, an uncertain impact is predicted. This objective has the potential to result in a positive impact on material assets through the provision of additional energy capacity in the Joint LAP study area.
IO 4.2	Support and facilitate the provision of telecommunications infrastructure, including broadband services in Maynooth, subject to safety and amenity requirements.									This objective is likely to result in a positive impact on population and human health and material assets through provision of required services. It is assumed only minor development is anticipated to occur as a result of this objective, thus a neutral environmental impacts have been identified.
IO 4.3	To engage with EirGrid, ESB Networks and telecommunications providers in relation to the rationalisation of transmission and telecommunications infrastructure and/or underground routing of all electricity, telephone, broadband and television cables within built-up areas of the town.									This objective is likely to result in a positive impact on landscape and visual and population where existing overhead cables would be removed from the LAP study area and placed underground which would be less visually intrusive. A neutral impact on other environmental aspects is expected as the undergrounding will take place in previously developed areas.
IO 4.4	Promote and encourage the use of local-based and/or community-owned renewable energy technologies in existing and proposed building stock and in commercial developments, including district heating, micro-generation (solar, photovoltaic, micro-wind, micro-hydro and micro combined heat and power), and other renewable energy technologies.									The promotion and encouragement of local-based and/or community-owned renewable energy infrastructure is likely to result in an overall positive impact on the environment, in general, as it would play a key role in the Council's climate change mitigation plan.

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IO 4.5	To actively support the development of a district heating network in Maynooth West Masterplan Area (as outlined in Map 11.2: Implementation) by requiring the undertaking of a feasibility study prior to the completion of any masterplan being carried out for the lands. Where feasibility is proven, Kildare County Council will require the establishment of a district heating scheme in the area as part of its phased development.									Any new development, particularly the development of a district heating network, has the potential to give rise to negative environmental effects. Refer to mitigation measures in Section 9 of this report. The implementation of these measures is, however, likely to result in a positive effect on population and material assets as a result of enhanced energy services. Potential uncertain impacts have been identified for air quality and climate, as the sustainability of the energy source remains unknown.	
IO 4.6	To support the undertaking of feasibility studies for district heating networks in Maynooth, including within the Town Centre, and within large sites identified for development including the Maynooth Environs (Moygaddy, County Meath) and the strategic residential lands at Railpark.									Overall, this objective is likely to result in neutral impacts. However, positive impacts on the population and human health, and material assets are anticipated through feasibility studies for district heating networks in Maynooth.	
Pollution and Enviro	nmental Services Objectives			•							
IO 5.1	Adequately maintain recycling facilities, secure the expansion of existing facilities as required and provide for the development of additional facilities in conjunction with new development, in particular within Maynooth University, the Maynooth Environs (Moygaddy) and in any new neighbourhood centre.									Any new development has the potential to give rise to negative environmental effects. Refer to mitigation measures in Section 9 of this report. The implementation of these measures is, however, likely to positively impact on population and human health and material assets as a result of the enhanced provision of services. A positive impact is also anticipated where the increased facilitation of recycling in line with new developments in the town is likely to result in positive impacts on climate. Potential uncertain impacts have been identified for archaeological, architectural, and cultural heritage and landscape and visual, as size, scale and location of development is currently unknown.	

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IO 5.2	Seek to ensure that all future recycling facilities in Maynooth are universally accessible to all members of the community.									The provision of accessible facilities is likely to result in a positive effect on population.
IO 5.3	Support the development of dedicated green waste composting areas integrated into the public open space provision of existing and future residential developments, where appropriate, for the purposes of composting the grass cuttings and other organic material generated within public open space areas.									The development of green waste composting facilities in Maynooth is likely to result in a positive effect on Biodiversity, Land and Soil, Population and Material Assets.
IO 5.4	Support the take-up and use of ultra-low/zero emissions vehicles and encourage, through the development management process the provision of electric vehicle charging infrastructure, where appropriate.									The promotion of alternative energy use particularly in the transport sector is likely to result in a positive effect on air, climate and material assets, through the provision of charging infrastructure. Overall, this objective is likely to result in neutral impacts as it is assumed that minor development will be facilitated.
IO 5.5	Support local schools, town and community groups such as Maynooth Tidy Towns in their efforts to improve the local environment through education and awareness programmes and where available, through the provision of grant aid.									Support of these groups through education and awareness programmes and the provision of grant aid will have a positive impact on population and human health.
Maynooth West Obje	ectives									
MWO 1.1	Support and facilitate development of a Transit-Oriented Development (TOD) surrounding the location of a new train station at Maynooth West by continuing to engage with key stakeholders including landowners, government departments, state agencies, Iarnród Éireann, utility providers and other interested parties and by actively seeking funding from relevant agencies and government sources for key transport infrastructure to realise the full potential of Maynooth West as a Transit-Oriented Development.									A positive impact on population and human health is predicted through the provision of TOD. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage and landscape & visual at this stage of the development, as the scale of development is currently unknown. Refer to Mitigation Measures in Section 9.

Objective and or Policies	Aims / Commitments	SEA	A Env	rironn	nenta	l Obj	ectiv	es		SEA Commentary
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MWO 1.2	Require the preparation of Masterplan for the lands at Maynooth West located north of the Royal Canal / rail line (as outlined on Map 11.2). This Masterplan shall be submitted by the landowner, for the written agreement of the Chief Executive of Kildare County Council, alongside any application for development on the lands that is not located within or linked to activities taking place within the existing built environs of St Patrick's College campus. The Masterplan should provide a comprehensive design scheme for the lands which contribute to realising the development of a Transit-Oriented Development at this location. The Masterplan shall be subject to the considerations and requirements outlined in Section 11.2.2 of this Joint Plan and be developed in conjunction with the relevant environmental assessments. The Masterplan shall include (but not be restricted to): A comprehensive phasing programme which details how critical infrastructure including physical, social and transport infrastructure will be delivered either prior to, or in tandem with residential and commercial development. A Site-Specific Flood Risk Assessment for the Masterplan lands. A Transport Impact Assessment. Outline water and wastewater network requirements including assessments regarding the capacity of receiving environment. A building heights strategy demonstrating how the Masterplan addresses the provisions of Table 14.4 of the Kildare County Development Plan 2023-2029 which identifies the portions of Maynooth West as suitable for increased building height (6+ storeys). A statement detailing climate proofing measures that demonstrates consistency with the provisions of Kildare County Council's Climate Action Plan 2024-2029 relating to Maynooth Decarbonising Zone (DZ).									This objective relates to the preparation of a masterplan for the lands at Maynooth West located north of the Royal Canal / rail line, and not the redevelopment of Maynooth as a whole. An overall neutral environmental effect is therefore identified until such time that a plan is prepared.

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	The development of a comprehensive landscaping scheme for the Masterplan area which integrates 'mitigation banking' measures to protect and enhance the ecological coherency and potential of Green and Blue Infrastructure assets, as set out in Section 9.8 of the Plan.									
	A statement of compliance with regard to the provisions of the Maynooth and Environs Surface Water Management Plan, as well as provision of a comprehensive surface water management scheme for the lands focusing on nature-based solutions (NBS).									
Maynooth Environs	Objectives									
MEO 1.1	Require the submission of a Master Plan alongside any application for the development of lands identified as 'Master Plan Area 16' on Map 11.2: Implementation for the prior written agreement of the Executive of the Meath County Council which shall address the following:									This objective relates to the submission of a masterplan alongside any application for the development of lands identified as 'Master Plan Area 16' on Map 11.2: Implementation for the prior written agreement of the Executive of the Meath County Council.
	A Design Statement outlining the evolution of the design process for the proposed development. An emphasis on exemplar sustainable design and aesthetic quality shall be required.									An overall neutral environmental effect is therefore identified until such time that a plan is prepared.
	Proposals for the accessing of lands which shall adhere to the permitted Part VIII realignment of the junction of the R157 Regional Road and Moygaddy Road.									
	Proposals providing for the delivery of the Maynooth Outer Relief Road which shall be developer driven in tandem with the overall development.									
	Proposals for piped water services to be agreed with Uisce Eireann compliant with any existing consents in place.									
	Mobility Management Plan for the development. This Plan shall be to the fore in establishing the agreed quantum of employees which can be accommodated within individual locations predicated on maximising public transport opportunities and the use of innovation in reducing associated carbon footprint.									

Objective and or Policies	Aims / Commitments	SEA	SEA Environmental Objectives				jectiv	es		SEA Commentary
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	Urban design and landscape design statement. Any development within the subject lands shall be subject to compliance with the requirements of the Habitats Directive and shall be phased with the delivery of the MOOR in Phase 1 of the development.									
MEO 1.2	Require the submission of a Master Plan alongside any application for the development of lands identified as 'Master Plan Area 17' on Map 11.2: Implementation for the prior written agreement of the Executive of Meath County Council for development of lands in the Maynooth Environs located within Carton Demesne which shall address the following: An assessment prepared by a suitably qualified conservation architect which demonstrates and concludes that the proposed development is sited and scaled such that it ensures that the character and integrity of this sensitive designed landscape and setting of Carton House within this landscape is respected and not adversely impacted upon. The assessment shall include reference to the significance of the designed landscape within the Development Framework lands to the overall evolution of the demesne. Proposals for piped water services to be agreed with Uisce Eireann and compliant with any existing consents in place, Proposals for the accessing of lands identified which shall adhere to the permitted Part VIII realignment of the junction of the R157 Regional Road and Moygaddy Road; inclusive of works to the Moygaddy Gate entrance to the demesne. A Design Statement outlining the evolution of the design process for the proposed development. An emphasis on exemplar sustainable design and aesthetic quality shall be required. Mobility Management Plan for the development. This Plan shall be to the fore in establishing the agreed									This objective relates to the submission of a masterplan alongside any application for the development of lands identified as 'Master Plan Area 17' on Map 11.2: Implementation for the prior written agreement of the Executive of the Meath County Council for development of lands in the Maynooth Environs located within Carton Demesne. An overall neutral environmental effect is therefore identified until such time that a plan is prepared.

Objective and or Policies	Aims / Commitments	SEA	SEA Environmental Objectives							SEA Commentary
		Р & НН	Bio	L & S	Wat	AQ, C & N	AA & CH	L&V	MA	
	quantum of employees which can be accommodated within individual locations predicated on maximising public transport opportunities and the use of innovation in reducing associated carbon footprint. Urban design and landscape design statement. Any development within the subject lands shall be subject to compliance with the requirements of the Habitats Directive.									
MEO 1.3	To facilitate the development of appropriately designed student accommodation on lands zoned 'A2 New Residential' within the Maynooth Environs to facilitate Maynooth University to continue to develop as a national and international centre for education.									A positive impact on population and human health and material assets is predicted through the provision of student accommodation. There is potential for negative environmental impacts to occur as this objective refers to a likelihood of development occurring. It is not possible to ascertain whether the proposed developments will result in a negative impact on heritage and landscape & visual at this stage of the development, as the scale of development is currently unknown. Refer to mitigation measures in Section 9.

8.4 Summary of Potential Environmental Effects

8.4.1 Population and Human Health

The potential impacts for Population and Human Health are predominantly positive with regards the provision of residential, economic, and sustainable transport opportunities in the draft Joint LAP study area.

The draft Joint LAP proposes to consolidate the town centre through the regeneration and redevelopment of vacant and under-utilised sites. This will likely result in a positive impact on Population and Human health, as it discourages urban sprawl, reduces traffic movements, enhances the public realm and encourages more sustainable transport methods.

Objectives relating to improvements to the public realm and accessibility of the town centre will also positively impact the population of Maynooth and Environs.

The draft Joint LAP also proposes to retain areas of land with extant (active) planning permissions for residential development previously zoned for new residential purposed under the Maynooth Local Area Plan 2013-2019 during the lifetime of the draft Joint LAP. Residential development will be provided predominantly in the extant permission sites, namely the Parson Street, Mill Street, Mariavilla (Dunboyne Road), Celbridge Road, Old Greenfield (Part 8 Scheme) and infill sites located within the town centre. This will seek to ensure that the longer-term development of Maynooth is provided for, aligning with the Core Strategy of the Kildare CDP 2023-2029 and Meath CDP 2021-2027 (as varied).

The promotion of enterprise and employment throughout the town, in addition to the lands located to the west of Maynooth University which are zoned for research and technology, will also result in a positive impact on the population of Maynooth, through increased job opportunities.

Positive impacts are also likely to occur where new transport infrastructure is provided for, or existing infrastructure is upgraded through the provision of improved access through the draft Joint LAP study area. This is particularly true in considering new sustainable transport infrastructure/opportunities.

8.4.2 Biodiversity

The land use zonings and objectives of the draft Joint LAP will primarily result in a neutral impact on Biodiversity. Development will be largely consolidated within existing zoned or developed lands, with a large portion of development within the existing urban centre of the Joint LAP study area.

However, there is the potential for negative impacts to occur where greenfield lands have been zoned for development - such as the lands to the west of the draft Joint LAP study area, which has the potential, even with the provision of mitigation, to impact on habitats and species. Similarly, potential negative effects on biodiversity are identified where large-scale infrastructure is proposed such as new road schemes. E.g., the construction of a new southern access route to Leinster Street from Parson Street and close Main Street access from Leinster Street or the creation of a walking trail/ greenway along the Royal Canal Greenway, Lyreen River, Ryewater River and the Blackhall Little Stream.

Uncertainties exist where the precise nature and extent of development is unknown. This is particularly relevant to the various green infrastructure objectives, where it is difficult to ascertain if the proposals relate to natural features, such as parks and hedgerows, or man-made features, such as cycle paths. Most natural green infrastructure features are likely to result in a positive impact on biodiversity, through species and habitat provision, while often man-made features such as greenways can result in a negative impact on the existing biodiversity through increased human interaction.

8.4.3 Land and Soils

Potential impacts for Land and Soils are predominantly neutral as development will primarily be consolidated within existing zoned or developed lands.

The redevelopment of brownfield and infill sites has the potential to result in a positive impact on land and soils, as it involves the remediation of potentially contaminated land. Also, the redevelopment of derelict sites can lead to more efficient land use, discourage urban sprawl and preserve natural areas.

Additionally, potential positive impacts have been identified where the incorporation of nature-based surface water management drainage solutions are proposed, as it can reduce soil erosion and improve groundwater recharge.

However, there is also the potential for negative impact to occur where greenfield lands have been zoned for development, such as the land at the west of the draft Joint LAP study area, as well as any proposed new roads.

Uncertainties have been assessed where the precise nature and extent of proposed new development is unknown.

8.4.4 Water

The land use zonings and objectives of the draft Joint LAP will primarily result in a neutral impact on Water as development will largely take place on existing zoned or developed lands.

However, there is the potential for negative impacts to occur where greenfield lands have been zoned for development, such as the lands to the west of the draft Joint LAP study area. Similarly, potential negative effects on Water are identified where large-scale infrastructure is proposed such as new road schemes, the construction of new southern access to Leinster Street from Parson Street and close Main Street access from Leinster Street or the creation of a walking trail/greenway along the Royal Canal, Lyreen River, Ryewater River and the Blackhall Little Stream.

A SFRA has been carried out in support of the draft Joint LAP. The SFRA has recommended a number of flood risk management objectives for specific areas, ensuring planning applications, where applicable, will require a FRA of appropriate detail. The level of detail within the FRA will depend on the risks identified and the proposed land use. A Surface Water Management Strategy (SWMS) was also prepared as a precursor to the SFRA. The aim of the SWMS is to find a municipal-level, multi-site nature-based solution(s) to surface water management for Maynooth and Environs.

8.4.5 Air, Noise and Climate

The potential impacts on Air, Noise and Climate are predominantly positive or neutral as the proposals to consolidate the town centre will likely result in a reduction in traffic movements.

The draft Joint LAP also promotes sustainable travel modes while making provisions for improved pedestrian and cycle routes in, and around the town centre. Such measures are likely to have a positive effect on air, noise and climate.

This draft Joint LAP comprises a range of climate change adaptation objectives relating to the promotion of sustainable transport, renewable energy uptake etc. These objectives will likely result in a positive impact on air quality and climate.

Uncertainties have potential to occur where the precise nature and extent of proposed new development is unknown. There is the potential for negative impacts to occur where new roads objectives are proposed. Proposed new road schemes are likely to result in a negative air quality, noise, and climate impacts due to both the materials used in construction and also by means of the encouragement of private vehicle use.

8.4.6 Heritage

The land use zonings and objectives of the draft Joint LAP will primarily result in neutral impact on Heritage as development will predominantly take place on existing zoned or developed lands.

Where urban regeneration or redevelopment is proposed in the town centre, it is not possible to fully ascertain if this is likely to result in a negative impact on heritage, as much of the town comprises an ACA. There are certain implications for development within an ACA where protection generally relates to the external appearance of structures and features of the streetscape. Generally, any works that may have a potential impact on the exterior of any protected structure would require planning permission, including changes to the original roofing material, windows and boundary walls. The aim of ACA designation is not to prevent development, rather to guide sensitive, good quality development, which will enhance both the historical character of the area and the amenity of those who enjoy it.

Other uncertainties have potential to occur where the precise nature and extent of proposed new development is unknown and where the discovery of previously unknown heritage features cannot be ruled out.

The draft Joint LAP does however place a significant emphasis on the retention, protection and enhancement of existing heritage features within the Joint LAP study area hence, there is a potential for positive impacts.

Lastly, there is potential for negative impacts to occur where greenfield lands have been zoned for development - such as the land at west of the draft Joint LAP study area, as this development has the potential to impact on archaeology.

8.4.7 Landscape and Visual

Potential impacts for Landscape and Visual have been assessed as predominantly neutral as existing buildings and previously developed areas are being utilised and renewed.

Positive impacts on the townscape of Maynooth town are likely to occur as a result of the range of regeneration and urban realm proposals included in the draft Joint LAP.

However, there is also potential for negative impacts to occur where greenfield lands have been zoned for development - such as the land at west of the draft Joint LAP study area, or where new roads objectives are proposed. This is particularly relevant with regards the proposed new road schemes.

Uncertainties exist where the precise nature, extent or scale of proposed development is unknown.

8.4.8 Material Assets

In general, potential impacts on Material Assets are considered predominantly positive or neutral. This is because development is likely to occur in a manner that is balanced and self-sustaining occurring in tandem with physical and social infrastructure.

The proposed consolidation of development in Maynooth Town Centre, however, has the potential to result in a negative impact on material assets. High population density could put a strain on material assets, and it should be ensured that there is sufficient water and wastewater capacity to facilitate any residential development. It is noted that the recent upgrades to the Lower Liffey Valley Regional Sewerage Scheme should accommodate all development proposed under the draft Joint LAP. Deficiencies in the surface water network are addressed, in part, by the Surface Water Management Strategy and recommended objectives of the draft Joint LAP.

8.5 Interactive and Cumulative Effects

8.5.1 Interactive Effects

The SEA Directive requires the ER to include information on the likely significant effects on the environment, including on issues such as biodiversity, fauna, flora, population, human health, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.

The presence of significant interactive effects between environmental factors is identified on Table 8.4.

Table 8.3 Interactive Effects

Environmental Aspect	Bio	Р& ННН	L&S	Wat	A, Q & C	AA&C H	L & V	MA
Bio								
P & HH	No							
L & S	Yes	Yes						
Wat	Yes	Yes	Yes					
A, Q & C	Yes	Yes	Yes	No				
AA & CH	No	No	Yes	No	No			

L & V	Yes	Yes	No	No	No	Yes		
MA	Yes							

Potential negative interactive effects are identified between P&HH, BIO, WAT, L&S and AQ, C&N in that, increased development across Maynooth and Environs is likely to be facilitated through the draft Joint Plan. Any new development situated on green spaces could impact the local ecosystem and biodiversity of the site, which in turn can affect AQ and WAT quality. Also, any development that involves excavation could result in dust arisings which has potential to impact AQ for surrounding P&HH and BIO. Additionally, there is risk of excavating potential contaminated ground during construction of new development which has the potential to impact soil quality and to enter the watercourse and impact water quality; contaminated water run off can lead to waterborne disease, affecting P&HH. Furthermore, habitat destruction as a result of development can lead to soil erosion and loss of BIO, which in turn affects ecosystem services that support P&HH.

Potential uncertain interactive effects have been identified for AA&CH and L&V where the type, scale and location of new developments likely to be facilitated through the draft Joint LAP are not defined. This is because a significant portion of the town contains structures of special architectural, historical, archaeological, artistic, cultural, scientific, social, or technical interest. Development, including redevelopment or regeneration in this area, could potentially have negative effects on sites or buildings of historical or architectural significance. Additionally, high density housing has a potential to result in a landscape and visual impact if residential units are too intrusive, however, at present the scale or density of this development is not known.

Potential positive interactive impacts are envisaged for P & HH and AQ, C&N in relation to the proposed compact growth of Maynooth Town Centre. However, an uncertain effect on MA is identified in that compact growth and regeneration of a town centre can lead to both positive and negative environmental effects. Potential positive effects on MA as a result of regeneration and compact growth stem from reductions in urban sprawl. Negative effects of compact growth include the likelihood for increased demand on existing services and utilities.

The incorporation of nature-based water drainage solutions as part of all plans and projects in the draft Joint LAP study area is likely to result in positive interactive and cumulative impacts to P&HH, BIO, L&S, WAT and MAT. Nature-based water drainage solutions can be designed to improve the biodiversity and provide the opportunity for habitat enhancement of an area, as well as improving water quality and controlling water quantity. They also reduce the possibility of flooding in an area and contribute to the successful overall running of utilities in an area.

8.5.2 Cumulative Effects

Cumulative effects are one of the types of effects which have been considered by the assessment of the alternatives. Cumulative effects can be described as the addition of many small impacts to create one larger, more significant, impact.

Potential inter-Plan cumulative effects arise when the effects of the implementation of one plan occur in combination with those of other plans, programmes, developments, etc. Other policies, plans and programmes, as outlined in Section 3.2 have therefore been considered for their potential to give rise to potential cumulative effects with the draft Joint LAP.

Examples include:

- Land use policy, plans, and programmes (e.g., Kildare CDP and Meath)
- Energy/Climate policy, plans and programmes (e.g., the National Energy & Climate Plan (NECP) 2021 2030).
- Water services, waste management, transport and energy infrastructure plans (e.g., Eastern Midland Region Waste Management Plan 2015-2021); and
- Environmental protection and management plans (e.g., River Basin Management Plan, emerging Marine Spatial Plan and Flood Risk Management Plans).

Potential cumulative effects include:

- Contribution towards sustainable development, environmental protection, and environmental management various provisions for which are provided for in the aforementioned plans.
- Need for and use of services, infrastructure, and other development (to service development, including tourism), including those related to water services, transport, access, or accommodation, that are planned for and consented through the statutory framework and associated potential adverse environmental effects on various environmental components including biodiversity and flora and fauna, the status of waters, human health, soil, emissions, cultural heritage and landscape.
- Contribution towards climate adaptation and mitigation through measures such as those relating to
 walking and cycling, charging infrastructure, facilitating use of public transport, flood risk management
 and resilience.
- Contribution towards travel related greenhouse gas and other emissions to air as a result of increases in tourist numbers.
- Contribution towards the protection and management of biodiversity and flora and fauna (in designated sites, including European Sites and Wildlife Sites, and Annexed habitats and species, listed species, ecological connectivity, and non-designated habitats) through visitor management strategies, as relevant and appropriate.

These plans and programmes are subject to their own environmental assessment requirements as relevant. Some of these potential cumulative effects are mitigated by measures which are integrated into the Plans/Programmes while some will be mitigated by measures arising out of separate consent procedures.

The potential cumulative effects of the draft Joint LAP in combination with relevant legislation, plans and programmes as detailed in Section 3.3 of this report, are discussed furthermore in Table 8.4, relating to each environmental component.

Table 8.4 Potential cumulative effects of the draft Joint LAP and relevant legislation, plans and programmes.

Environmental Component	Potential Cumulative effects that could generally occur across environmental components:
Population and Human Health	There is potential for cumulative positive impacts on communities and or individuals to occur as a result of increased development, particularly in relation to increased economic activity and housing emanating from the draft Joint LAP, in combination with the increased development and land-use change emanating from Kildare and Meath's County Development Plans and other Land Use Plans. However, all such plans will be subject to SEA in line with the SEA Directive (2001/42/EC), AA as necessary in line with Article 6 of the Council Directive 92/43/EEC. It is anticipated that any negative impacts to population and human health resulting from development plans will be minimised insofar as possible, through the relevant mitigation and monitoring outlined in SEA and AA processes. Thus, there is no potential for likely significant cumulative effects to occur on population and human health as a result of the implementation of development plans and the draft Joint LAP.

Environmental Component	Potential Cumulative effects that could generally occur across environmental components:
Biodiversity	There is potential for cumulative negative impacts on biodiversity to occur as a result of increased development, associated construction works and land use change emanating from the draft Joint Plan, in combination with the increased development, land-use change and associated development emanating in line with Kildare and Meath's respective county development plans and other land use plans, that may affect areas in and or in close proximity to the Maynooth and Environs boundary. However, all such plans will be subject to SEA in line with the SEA Directive (2001/42/EC), AA as necessary in line with Article 6 of the Council Directive 92/43/EEC. It is anticipated that any negative impacts to biodiversity resulting from development plans will be minimised insofar as possible, through the relevant mitigation and monitoring outlined in SEA and AA processes. Thus, there is no potential for likely significant cumulative effects to occur on biodiversity as a result of the implementation of development plans and the draft Joint LAP.
	There is also potential for cumulative, positive impacts on biodiversity as a result of the implementation of the draft Joint LAP, particularly where policies and objectives within relate to biodiversity and nature conservation. The draft Joint LAP in combination with all Management Plans for Natura 2000 sites, Threat Response Plans, the EU (2030) Biodiversity Strategy and the Ireland's 4 th National Biodiversity Action Plan all promote the restoration and protection of biodiversity at local, national and EU level, to promote well-functioning ecosystems in order to boost resilience, protect endangered species and habitats, and prevent the emergence and spread of future diseases. Threat Response Plans and Management Plans for Natura 2000 sites will specifically focus on protected habitats and species across Ireland. These Plans are subject to SEA in line with the SEA Directive (2001/42/EC) and AA as necessary in line with Article 6 of the Council Directive 92/43/EEC. The purpose of the EU Biodiversity Strategy is to adapt and mitigate climate change, whilst prioritising biodiversity enhancement and sustainable forest management. Overall, it is not anticipated that negative cumulative effects are likely to occur as a result of the aforementioned Plans and or Strategies in combination with the draft Joint LAP, where all relevant mitigation and monitoring are undertaken.
Land and Soils	There is potential for cumulative negative impacts on land and soils to occur as a result of increased development, associated construction works and land use changes emanating from the draft Joint LAP, in combination with the increased development, land-use change and associated construction emanating in line with Kildare and Meath's respective county development plans and other land use plans. The cumulative effect of such plans may affect soil quality in and or in close proximity to Maynooth and Environs. However, all such plans will be subject to SEA in line with the SEA Directive (2001/42/EC), AA as necessary in line with Article 6 of the Council Directive 92/43/EEC. It is anticipated that any negative impacts to land and soils resulting from development plans will be minimised insofar as possible, through the relevant mitigation and monitoring outlined in SEA and AA processes. Thus, there is no potential for likely significant cumulative effects to occur on land and soils as a result of the implementation of development plans and the draft Joint LAP.
Water Resources	There is potential for cumulative negative impacts on water quality to occur as a result of increased development, associated construction works and land use changes emanating from the draft Joint LAP, in combination with increased development, land-use change and associated development that may emanate from Kildare and Meath's respective county development plans and other land use plans. Water resources in and or in close proximity to the Maynooth and Environs boundary have potential to be affected, however, all such plans will be subject to SEA in line with the SEA Directive (2001/42/EC), AA as necessary in line with Article 6 of the Council Directive 92/43/EEC. It is anticipated that any negative impacts to water resources and quality resulting from development
	plans will be minimised insofar as possible, through the relevant mitigation and monitoring outlined in SEA and AA processes. Thus, there is no potential for likely significant cumulative effects to occur on water resources as a
	result of the implementation of developments plans and the draft Joint LAP. There is potential for cumulative, positive impacts on water quality as a result of the implementation of the draft Joint LAP and particularly policies and objectives that relate to water conservation, the implementation of nature-based surface water management in Maynooth and Environs etc., in combination with the Eastern Catchment Flood Risk Assessment Management (CFRAM) Study, Flood Risk Management Plans, Uisce Eireann's Capital Investment Plan 2020-2024, the Nitrates Directive, Drinking Water Directive, Bathing Water Directive, Water Framework Directive and associated Directives. These Plans are subject to SEA, with the exception of the Directives, in line with the SEA Directive (2001/42/EC) and AA as necessary in line with Article 6 of the Council Directive 92/43/EEC. The Directives listed are all tailored towards the protection of water resources in Ireland and thus, overall, it is not anticipated that negative cumulative effects are likely to occur as a result of the aforementioned Plans and or Directives in combination with the draft Joint LAP, where all relevant mitigation and monitoring are undertaken.

Environmental Component	Potential Cumulative effects that could generally occur across environmental components:
Air and Climate	There is potential for cumulative, positive impacts on air quality and climate as a result of the implementation of the draft Joint LAP and particularly where objectives relate to facilitating net zero emissions, sustainable transport methods and renewable energy projects etc., in combination with the Paris climate conference (COP21) 2015 (Paris Agreement), European Green Deal, EU 2030 Framework for Climate and Energy, EU (2018) Clean Air Policy Package, Policy Position on Climate Action and Low-Carbon Development, the National Policy Position Ireland (2014), Draft Clean Air Strategy for Ireland, Climate Action Plan 2024 and Maynooth and Environs Area Based Transport Assessment. These plans, frameworks and policies are climate focused and aim to achieve net zero emissions in Ireland. Overall, it is not anticipated that cumulative effects are likely to occur as a result of the aforementioned plans, frameworks and policies, in combination with the draft Joint LAP, where all relevant mitigation and monitoring are undertaken.
Archaeology, Architectural and Cultural Heritage	There is potential for cumulative negative impacts on archaeology, architectural and cultural heritage to occur as a result of increased development, associated construction works and land use changes emanating from the draft Joint LAP, in combination with the increased development and land-use change emanating in line with Kildare and Meath's respective county development plans and other land use plans, that may affect archaeology, architectural and cultural heritage in and or in close proximity to the Maynooth and Environs boundary. Examples of potential negative impacts include certain developments and activities on or near sites of heritage value, where visual amenities and or the character of urban/rural areas and items of architectural, archaeological, and historical importance may be under threat by such works. It is also acknowledged that development works can often have a positive impact on our cultural heritage too. All of the aforementioned plans will be subject to SEA in line with the SEA Directive (2001/42/EC), AA as necessary in line with Article 6 of the Council Directive 92/43/EEC. It is anticipated that any negative impacts to archaeology, architectural and cultural heritage resulting from development plans will be minimised insofar as possible, through the relevant mitigation and monitoring outlined in SEA and AA processes. Thus, there is no potential for likely significant cumulative effects to occur on archaeology, architectural and cultural heritage as a result of the implementation of developments plans and the draft Joint LAP.
Landscape and Visual	There is potential for cumulative negative impacts on landscape and visual to occur as a result of increased development, associated construction works and land use changes emanating from the draft Joint LAP, in combination with the increased development and land-use change emanating in line with Kildare and Meath's respective county development plans and other land use plans, that may affect landscape and visual in and or in close proximity to the Maynooth and Environs boundary. Examples of potential negative impacts include developments and activities having potential to impact upon visually sensitive areas including designated landscape. However, all such plans will be subject to SEA in line with the SEA Directive (2001/42/EC), AA as necessary in line with Article 6 of the Council Directive 92/43/EEC. It is anticipated that any negative impacts to landscape and visual resulting from development plans will be minimised insofar as possible, through the relevant mitigation and monitoring outlined in SEA and AA processes. Thus, there is no potential for likely significant cumulative effects to occur on landscape and visual as a result of the implementation of developments plans and the draft Joint LAP.
Material Assets	There is potential for cumulative, positive impacts on material assets as a result of the implementation of the draft Joint LAP and particularly where policies and objectives relate, e.g., to new or existing infrastructural services, facilities, agricultural lands, and or water resources, where there is potential for similar activities to emanate in line with the Kildare and Meath's County Development Plans, other Land Use Plans and or the Eastern Midland Region Waste Management Plan 2015-2021. However, these plans will be subject to SEA in line with the SEA Directive (2001/42/EC), AA as necessary in line with Article 6 of the Council Directive 92/43/EEC. It is anticipated that any negative impacts to landscape and visual resulting from development plans will be minimised insofar as possible, through the relevant mitigation and monitoring outlined in SEA and AA processes. Thus, there is no potential for likely significant cumulative effects to occur on landscape and visual as a result of the implementation of developments plans and the draft Joint LAP.

9. Mitigation Measures and Monitoring

9.1 Mitigation

Mitigation measures are measures envisaged and designed to prevent, reduce and as fully as possible offset any significant adverse impacts on the environment of implementing the draft Joint LAP. All mitigation measures have been developed and agreed with KCC and MCC as part of the SEA iterative process.

The primary mitigation measure is to ensure the sustainable and appropriate development of the draft Joint LAP study area without compromising the integrity of the natural and built environment.

It is recommended that all legislation, policies and guidelines outlined in this ER and are adhered to. In addition, future legislation, policies and guidelines should also be fully integrated into the draft Joint LAP and ER. In addition, many impacts will be more adequately identified and mitigated at project and EIA level. In general terms, all proposals for development will be required to have due regard to environmental considerations outlined in this ER and associated AA Screening.

In this section the mitigation measures are discussed under each environmental parameter heading. Refer to Table 9.1 for proposed mitigation measures, and recommendations of the SEA.

Table 9.1 Mitigation Measures

Aspect	Mitigation Measures	Relevant Objectives		
		Kildare County Development Plan Objectives	Meath County Development Plan Objectives	Draft Joint LAP Objectives
Population and Human Health	Ensure that access to adequate health and education facilities to meet the demand of the current and projected populace are included in development plans.	HO O32, HO O44, SC O16, SC A2, SC O31, SC P7, SC P14, SC O78, SC O80, SC O82, SC O83, SC O84, SC O85, SC A16, SC O79, RE O59, RE O61, TM T1, TM O21, TM T3, TM T6, EC O87, RD O17, SC O10, SC O16, SC A2, SC P12, SC O58, SC O63, SC O64, SC O66, SC O68, SC O69, AH O27.	CS 1, CS 2, CS 12, SH 2, SH 24, ED 7, ED 8, ED 12, ED 14, ED 18, ED 29, ED 76, SOC 1, SOC 4, SOC 5, SOC 6, SOC 18, SOC 19, SOC, 20, SOC 21, RUR DEV SO 1, RD 1, DM 22, DM 47, DM 48, DM 67, DM 69, DM 71, DM 72, DM 74.	CCSO 1.1, HCO 1.1, HCO 1.2, HCO 2.1, HCO 2.5, HCO 2.6, HCO 3.1, HCO 3.2, HCO 3.3, HCO 4.1, HCO 5.1, HCO 5.2, HCO 5.3, HCO 5.4, HCO 5.5 HCO 6.8, HCO 7.2, EDO 1.8, EDO 1.1, EDO 1.2, EDO 1.13.
	To consult with and have regard to the technical advice of the Health and Safety Authority and assessing planning applications where the Major Accidents Directive and any associated regulations are relevant	RE P9, RE P10.	MOV 57, MOV 69, DM 111, DM 112.	-
	Encourage the further development of regional sustainable and public transport infrastructure including rail and bus corridors.	TM A2, TM O27, RET O6, CSO 1.12, RE O9, RE P12,	CS 15, CS 16, CS 17, ED 1, ED 10, ED 16, ED 25, ED 27,	EDO 2.4, MATO 1.1, MATO 2.1, MATO 2.3,

Aspect	Mitigation Measures	Relevant Object	ives	
		Kildare County Development Plan Objectives	Meath County Development Plan Objectives	Draft Joint LAP Objectives
		TM 03, TM 08, TM 011, TM A5, TM A7, TM A10, TM P3, TM 023, TM 024, TM 027, TM T5, TM T6, TM 067, TM A18, TM 088, TM 090, SC 026, SC 041, LR 085.	ED 52, ED 55, ED 79, ED 80, MOV 1, MOV 3, MOV 4, MOV 5, MOV 6, MOV 7, MOV 8, MOV 10, MOV 11, MOV 11, MOV 12, MOV 14, MOV 15, MOV 17, MOV 18, MOV 19, MOV 23, MOV 24, MOV 26, MOV 27, MOV 28, MOV 29, MOV 31, MOV 32, MOV 31, MOV 32, MOV 34, MOV 51, MOV 51, MOV 51, MOV 52, DM 68, DM 71, DM 75, DM 76, DM 96, DM 97, DM 98, DM 99, DM 100.	MATO 2.4, MATO 2.5, MATO 3.2, MATO 3.3, MATO 3.6, MATO 5.2, MATO 5.7, MWO 1.1, MEO 1.1, MEO 1.2.
Biodiversity	To afford the highest level of protection to all designated European sites and species in accordance with the relevant legislation To require all planning applications for development must balance or outweigh any potential impacts on biodiversity, by measures taken to avoid and minimise the impacts and to restore affected areas and offset the residual impacts, so that no loss remains. To ensure no increase in nitrogen deposition at ecologically sensitive sites.	EC O56, RE O101, RE O108, AH P1, AH P2, AH P3, AH O40, LR T1, LR O19, LR O21, LR O22, LR O20, LR O18, LR T2, RD O32, AH P2, TM A21, IN O64, RD O11, RD O38, AH O1, AH O4, AH A1, AH A2, AH A3, AH A4, AH O8, AH P5, LR O8, LR T1, RE P26, EC O26, AH O5, AH O6, AH O7, AH O10.	ED 56, ED 62, INF 22, INF 39, INF 45, SOC 6, HER 34, HER 60, DM 64, DM 65, DM 76.	CCSO 1.8, MATO 2.1, GBIO 1.1, GBIO 2.4.
	To require all planning applications for development that may have (or cannot rule out) likely significant effects on European Sites in view of the site's Conservation Objectives, either in isolation or in combination with other plans or projects, to submit a Natura Impact Statement in accordance with the requirements	RD 034, RD 038, AH P1, AH 01, AH 03, AH 04, AH A1, AH A2, AH 08, AH 013, AH	ED 56, ED 62, INF 39, INF 45, SOC 6, HER 34, HER 60, DM 64, DM 65, DM 76, DM 77.	CCSO 1.8, GBIO 1.1.

Aspect	Mitigation Measures	Relevant Object	ives	
		Kildare County Development Plan Objectives	Meath County Development Plan Objectives	Draft Joint LAP Objectives
	of the EU Habitats Directive and the Planning and Development Act, 2000 (as amended)	O16, AH P8, LR O8, LR T1, LR O38, EC O56, RE O101, RE O108, AH P1, AH P2, AH		
	To recognise and afford appropriate protection to any existing, new, or modified SPAs or SACs that are identified during the lifetime of the LAP	P3, AH O40, LR T1, LR O19, LR O21, LR O22, LR O20, LR O18, LR T2, RD O32, RE O122, RE P26, EC O26, AH O5, AH O6, AH O7, AH O10, LR O6, LR O2.		
	To implement Article 6(3) and where necessary 6(4) of the Habitats Directive and to ensure that Appropriate Assessment is carried out in relation to works, plans and projects likely to impact on European sites (SACs and SPAs), whether directly or indirectly or in combination with any other plan(s) or project(s) To have regard to Appropriate Assessment of Plans and Projects in Ireland – Guidelines for Planning Authorities 2009 or any updated version.	D O34, AH O8, AH O24, AH O35, LR O2, LR O3, EC O54, RD O34, RD O38, RD O39, AH O4, AH O10, AH O23, AH O33, AH O48, AH O51, AH O64, LR A1, LR O38, RD 032, AH P2, AH P3, LR O21, LR O22.	ED 78, MOV 36, MOV 39, MOV 39, MOV 45, MOV 47, MOV 49, MOV 53, MOV 55, INF 5, INF 24, INF 39, INF 45, INF 52, SOC 6, HER 8, HER 33, HER 34, HER 39, HER 42, RUR DEV SO 9, DM 64, DM 65, DM 76, DM 77.	CCSO 1.8, MATO 2.3, GBIO 1.1.
	To actively promote the conservation and protection of areas designated as an NHA (including proposed sites) and to only consider proposals for development within or affecting an NHA where it can be clearly demonstrated that the proposed development will not have a significant adverse effect on the NHA or pNHA. To identify and afford appropriate protection to any new, proposed or modified NHAs identified during the lifetime of this draft Joint LAP.	HO P26, RD O32, SC A11, AH A1, AH P2, AH P3, AH O8, AH O40, AH O51, HO P12, HO O48, HO A4, HO P26, RE O109, RE O120, RE O121, RE O135, RE O135, RE O136, RE O137, RE O142, TM O101, EC O5, EC O17, EC O26, EC O62, EC O70, EC O75, RET O37, RET O39, RET O51, RD O32, SC O46, SC O88, AH P1, AH O1, AH	ED 74, INF 39, INF 45, HER 34, DM 64, DM 65, DM 76, DM 77.	CCSO 1.8, GBIO 1.2.

Aspect	Mitigation Measures	Relevant Object	ives	
		Kildare County Development Plan Objectives	Meath County Development Plan Objectives	Draft Joint LAP Objectives
		O4, AH O15, AH O16, AH A5, AH A6, AH P4, AH O18, AH P5, AH P6, AH O21, AH O23, AH O28, AH O29, AH O31, AH O33, AH O39, AH P8, AH O54, AH O56, AH O64, LR O19, LR		
	To ensure the protection and conservation of areas, sites, species and ecological networks/corridors of biodiversity value outside of designated sites throughout the country and to require an ecological assessment to accompany development proposals likely to impact on such areas or species.	AH P1, LR T1, EC O85, RD O29, AH O35, RE O97, RE O105, RE O111, IN O30, IN O63, EC O17, EC O54, RD O38, RD O39, AH O17, AH O24, AH O35, LR O2, LR O38.	INF 39, HER 39, HER 40, DM 77.	CCSO 1.8, MATO 2.1, GBIO 1.3, GBIO 2.4.
	To implement the EIA Directive, ensuring that all elements/stages or components of the project are included in one overall assessment and all reasonable alternatives are taken into consideration in choosing the option with the least environmental impact. To have regard to "Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessments (2013)' when considering proposals for which an EIA is	EC O56, RE O101, RE O108, AH P1, AH P2, AH P3, AH O40, LR T1, LR O19, LR O21, LR O22, LR O20, LR O18, LR T2, RD O32, AH P2, TM A21, IN O64, RD O11, RD O38, AH O1, AH O4, AH A1, AH A2, AH A3, AH A4, AH O8, AH P5, LR O8, LR T1, RE P26, EC O26, AH O5, AH O6, AH O7, AH O10, RD O34, RD O38, AH O4, AH A1, AH A2, AH	E 31,ED 62, ED 63, ED 74, ED 78, MOV 36, LR MOV 39, MOV 45, MOV 47, LR MOV 49, MOV 53, MOV 55, LR INF 24, INF 32, INF 39, INF	CCSO 1.8, MATO 2.1, MATO 4.4, MATO 4.5, GBIO 1.3, GBIO 2.1, GBIO 2.4.
	required. To protect and promote the sustainable management of the natural heritage, flora and fauna of the county through the promotion of biodiversity, the conservation of natural habitats and the enhancement of new and existing habitats.		52, INF 59, INF 64, SOC 22, HER 8, HER 9, HER 30, HER 31, HER 39, HER 40, HER 41, HER 42, HER 59, RUR DEV SO 4, DM	
	To promote the conservation of biodiversity through the protection of sites of biodiversity importance and wildlife corridors, both within and between the designated sites and the wider draft Joint LAP study area;		11, DM 65, DM 76, DM 77, DM 83, DM 85, DM 88.	
	To ensure that development proposals support and enhance the connectivity and integrity of habitats in the draft Joint LAP study area by	O8, AH O13, AH O16, AH P8, LR O8, LR T1, LR O38,		

Aspect Mitigation	on Measures	Relevant Objectives		
		Kildare County Development Plan Objectives	Meath County Development Plan Objectives	Draft Joint LAP Objectives
	ating natural features into the design of ment proposals.	EC O56, RE O101, RE O108, AH P1, AH P2, AH P3, AH O40, LR T1, LR O18, LR T2, RD O32, RE O122, RE P26, EC O26, AH O5, AH O6, AH O7, AH O10, LR O6, LR O2, AH O24, AH O35, LR O2, LR O38, RD O39, AH O4, AH O10, AH O23, AH O33, AH O48, AH O51, AH O64, LR A1, LR O38, RD O32, LR O21, LR O22, HO P26, RD O32, SC A11, AH O8, AH O40, AH O51, HO P12, HO O48, HO A4, HO P26, RE O109, RE O120, RE O121, RE O135, RE O136, RE O137, RE O136, RE O137, RE O137, RE O142, TM O101, EC O5, EC O70, EC O75, RET O37, RET O39, RET O51, RD O32, SC O46, SC O88, AH O1, AH O4, AH O15, AH O16, AH A5, AH A6, AH P4, AH O15, AH O16, AH A5, AH A6, AH P4, AH O15, AH O16, AH A5, AH A6, AH P4, AH O18, AH P5, AH P6, AH O21, AH O23, AH O28, AH O29, AH O31, AH O33, AH		

Aspect	Mitigation Measures	Relevant Objectives		
		Kildare County Development Plan Objectives	Meath County Development Plan Objectives	Draft Joint LAP Objectives
		LR O19, LR O24, AH P1, LR T1, EC O85, RD O29, AH O35, RE O97, RE O105, RE O111, IN O30, IN O63, EC O17, EC O54, RD O38, RD O39, AH O17, AH O24, AH O35, LR O2.		
	To raise awareness of the threat of alien invasive species and take all necessary steps to prevent the spread of non-native invasive species and noxious weeds in the draft Joint LAP study area, including requiring landowners, developers and boat operators to adhere to best practice guidance in relation to their control;	AH O4, AH P9, AH O37, AH O38, AH A12.	-	GBIO 1.3.
	To implement the requirements of EU Regulations 1143/2014 on the Prevention and Management of the Introduction and Spread of Invasive Alien Species.			
	The development of new infrastructure will be subject to site options assessment and environmental assessment, where required.	AH O35, HO P3, HO P9, RE O97, RE O105, RE O111, TM A2, TM O44, TM O53, TM A18, IN O30, IN O31, IN O32, IN O33, IN O63, EC O17, EC O24, AH P1, LR T1, EC O85, RD O29, RE O97, RE O105, RE O111, IN O30, IN O63, EC O17, EC O54, RD O38, RD O39, AH O17, AH O24, AH O35, LR O2, LR O38, RD O34, AH O8, AH O24, AH O35, LR O2, LR O3, EC O54, RD O34, RD O39, AH O4, AH O10, AH O23, AH O33,	ED 31, ED 55, ED 78, ED 80, MOV 36, MOV 45, MOV 47, MOV 49, MOV 53, MOV 55, INF 5, INF 24, INF 45, INF 52, INF 64, HER 41, HER 42.	MATO 2.1, MATO 4.1, MATO 4.2, GBIO 2.1.

Aspect	Mitigation Measures	Relevant Object	ives	
		Kildare County Development Plan Objectives	Meath County Development Plan Objectives	Draft Joint LAP Objectives
		AH O48, AH O51, AH O64, LR A1, LR O38, RD 032, AH P2, AH P3, LR O21, LR O22.		
Land and Soils	To ensure that contaminated soil is disposed of in accordance with the Waste Management Regulations (S.I.821 of 2007)	HO O46, IN O38, IN O41, IN O42, IN O43, IN O44, IN O46, IN O48, IN O51.	-	-
	Perform a survey of obsolete urban renewal areas and facilitate and promote the reuse and regeneration of brownfield sites, derelict land and buildings in and around urban centres.	CSO 1.11, HO P6, HO O9, HO P9, RE O20, RE P4, RE O30, RE O33, RE A5, RE O93, TM O92, RET O9, RET O19, RET O29, RET O34, RET O36, RET O40, RET O43, RET O46, RET O54, RET A1, RET O74, RET A3, AH O15, UDPR P2, UDPR O4, UDPR A1.	CS 4, CS 6, SH 12, ED 69, ED 71, ED 73, SOC 26, HER 10, RD 3, DM 16, DM 42.	CCSO 1.7, TCO 1.1, TCO 1.2, TCO 1.6, TCO 1.10, HCO 1.2.
	To recognise the importance of Geological Heritage Sites and to protect the character and integrity of these sites To work with the GSI and relevant stakeholders to undertake a review of Geological Heritage Sites in the county during the lifetime of this draft Joint LAP	CSO 1.11, HO P6, HO O9, HO P9, RE O20, RE P4, RE O30, RE O33, RE A5, RE O93, TM O92, RET O9, RET O19, RET O29, RET O34, RET O36, RET O40, RET O43, RET O46, RET O54, RET A1, RET O74, RET A3, AH O15, UDPR P2, UDPR O4, UDPR A1.	ED 22, ED 41, ED 74, ED 75, ED 76, HER 1, HER 4, HER 7, HER 8, HER 11, HER 34, RUR DEV SO 4, DM 64, DM 65.	GBIO 1.2.
Water Resources	To work with all relevant stakeholders to protect and manage inland waters, river corridors and their floodplains, turloughs, lakes, fens and other water bodies from degradation and damage, and to recognise and promote	HO O48, HO P23, RE O10, RE O110, RE P21, RE P26, TM O5, TM	INF 2, INF 3, INF 6, HER 58, HER 59, RUR	GBIO 1.2, GBIO 1.5, GBIO 2.3.

Aspect	Mitigation Measures	Relevant Objectives		
		Kildare County Development Plan Objectives	Meath County Development Plan Objectives	Draft Joint LAP Objectives
	them as natural assets and key elements in the green infrastructure network in the county	017, IN P1, IN P2, IN O2, IN O3, IN O5, IN O6, IN O7, IN O8, IN O9, IN O11, IN O16, IN O16, IN O16, IN O18, IN O19, IN P4, IN O20, IN O23, IN O52, IN O53, IN O54, RD O9, RD O19, AH P7, AH O23, AH O25, AH O26, AH O27, AH O31, AH P8, AH O52, AH O55, LR O20, LR O25, LR O26, LR O27, LR O32, LR O59.	DEV SO 2, DM 64, DM 65.	
	To facilitate the implementation of the relevant River Basin Management Plan for ground, surface, estuarine, coastal and transitional waters in the Plan area as part of the implementation of the EU Water Framework Directive.	IN O18, IN P4, IN O20, IN O28, IN P5, IN P7, IN O52, AH P7, AH O23, IN O53, IN O54,	INF 7, INF 8, INF 09, INF 10, INF 19, INF 29, INF 36, INF 37, INF 38, INF 39, SOC 22, RUR	GBIO 1.2, GBIO 1.5, IO 2.1, IO 2.2, IO 2.6, MATO 4.2, MEO 1.1, MEO 1.2.
	To protect groundwater resources in accordance with the statutory requirements and specific measures as set out in the relevant River Basin Management Plan	RD 09, RD 019, AH 025, AH 026, AH 027, AH 027, AH 031, AH	DEV SO 2, DM 64, DM 65, DM 65.	
	To consider proposals for development where it can be clearly demonstrated that the development will meet the requirements of the relevant River Basin Management Plan.	P8, AH O55, LR O25, LR O26, LR O27, LR O32, IN P2, IN O2, IN O5, RD O9, LR O59, IN O53, HO P23, HO O48, HO P23, RE O10, RE O110, RE P21, RE P26, TM O5, TM O17, IN P1, IN P2,		
	To ensure that developments that would have an unacceptable impact on water resources, including surface water and groundwater quality and quantity, designated sources protection areas, estuarine, coastal transitional waters, river corridors and associated wetlands will not be permitted;			
	In areas of potable groundwater resources or over vulnerable aquifer areas, development proposals will only be considered if the applicant can clearly demonstrate that the proposed development will not pose a risk to the quality of the underlying groundwater.	IN O2, IN O3, IN O5, IN O6, IN O7, IN O8, IN O9, IN O11, LR 020.		

Aspect	Mitigation Measures	Relevant Object	ives	
		Kildare County Development Plan Objectives	Meath County Development Plan Objectives	Draft Joint LAP Objectives
	Prevent the alteration of natural drainage systems and in the case of development works require the provision of acceptable mitigation measures in order to minimise the risk of flooding and negative impacts on water quality. Comply with the objectives and policies of the Eastern Catchment Flood Risk Assessment Management Study. Promote SUDS principles for all drainage including the integration of storm water attenuation facilities for new developments and existing catchment areas. Ensure that any new development does not present an inappropriate risk of flooding or does not cause or exacerbate such a risk at other locations Comply with the DoECLG/OPW guidance on development and flood risk through the control of development in any flood plain so that new and existing developments are not exposed to increased risk of flooding and that any loss of flood storage is compensated for elsewhere in the river catchment.	TM O5, IN O22, IN O28, AH P15, AH O55, HO O46, TM O5, TM O55, TM O96, IN P4, IN O20, IN O21, IN O27, IN A3, AH O34, AH O35, AH P15, AH O53, AH A18, HO P28, IN P5, IN O29, IN O30, IN O31, IN O32, IN O33, IN O34, IN O35, IN A2, EC O56, RD O25, AH O30, AH O31, AH O32, AH P8, LR O25, LR O32.	MOV 62, INF 1, INF 14, INF 15, INF 16, INF 17, INF 18, INF 20, INF 21, INF 22, INF 23, INF 24, INF 25, INF 28, INF 30, INF 35, HER 44, HER 45, DM 7, DM 64, DM 77.	MTO 1.1, IO 2.3, IO 3.1, IO 3.2, MWO 1.2, MATO 4.2.
Air Noise and Climate	Ensure that the objectives and policies of EU Air Quality legislation are incorporated into plans and programmes upon implementation into Irish law. Ensure nitrogen deposition at ecological sensitive areas is in compliance with critical loads.	IN O55, IN O56, IN O57, TM 0115.	INF 71, INF 72.	MATO 2.1.
	Promote the reduction of emissions of greenhouse gases and facilitate measures which seek to reduce emissions of greenhouse gases to ensure Ireland's compliance with our emission targets. EC O3, CSO 1.2, RE P12, EC P1, EC O3, TM A3, EC O30, EC O40, AH O35, LR O12, LR O13	1.2, RE P12, EC P1, EC O3, TM A3, EC O30, EC O40, AH O35, LR	MOV 64, INF 40, INF 41, INF 42, INF 43, INF 47, INF 48, INF 72.	IO 5.4, DO 1.1, DO 1.2, EDO 1.5.
	Facilitate sustainable transport modes and the use of walking, cycling and public transport.	TM A8, TM A16, TM O56, CSO 1.12, RE O21, RE O38, RE P12, RE O125, TM P1, TM O10, TM P2, TM O13, TM A2, TM O27, RET O6, CSO 1.12, RE O9, RE P12, TM O3, TM O8, TM O11, TM A5, TM A7, TM A10,	CS 15, CS 16, CS 17, ED 1, ED 10, ED 16, ED 25, ED 27, ED 52, ED 55, ED 79, ED 80, MOV 1, MOV 3, MOV 4, MOV 5, MOV 6, MOV 7, MOV 8, MOV 9, MOV 10, MOV 11, MOV 12, MOV 14, MOV 15, MOV 16, MOV 17,	EDO 3.4, MATO 1.1, MATO 2.1, MATO 2.2, MATO 2.3, MATO 2.4, MATO 2.5, MATO 3.1, MATO 3.2, MATO 3.3, MATO 3.4, MATO 3.5, MATO 3.6, MATO 5.2, MATO 5.4, MATO 5.7,

Aspect	Mitigation Measures	Relevant Objectives		
		Kildare County Development Plan Objectives	Meath County Development Plan Objectives	Draft Joint LAP Objectives
		TM P3, TM O23, TM O24, TM O27, TM T5, TM T6, TM O67, TM A18, TM O88, TM O90, SC O26, SC O41, LR O85, TM O14, TM O17, TM O20, TM O22, TM A5, TM T2, TM T3, TM O23, TM O31, TM O45, TM O82, RET O65, SC O20, SC O26, SC O41, SC O59, SC O79, SC O93, AH O32, LR O44, LR A11, LR O85, LR O86.	MOV 18, MOV 19, MOV 23, MOV 24, MOV 26, MOV 27, MOV 28, MOV 29, MOV 30, MOV 31, MOV 32, MOV 33, MOV 34, MOV 51, MOV 52, DM 68, DM 71, DM 75, DM 76, DM 96, DM 97, DM 98, DM 99, DM 100.	MWO 1.1, MEO 1.1, MEO 1.2.
	Consideration of existing noise policy in County Kildare and County Meath for example noise mapping and noise action plans produced by the Local Authority. Consideration of likely noise impacts/effects associated with new developments. This includes being cognisant of proximity to sensitive receptors when siting new developments and consideration of existing noise sources when zoning lands for residential development.	EC O30, TM O49, TM O50, TM O112, TM O127, IN P8, IN O59, IN O60, IN O61, IN O62, IN O63, EC O30, EC O56, SC O90.	MOV 56, MOV 68, MOV 70, INF 71, INF 73, SOC 22, DM 45, DM 65, DM 77.	HCO 1.1, HCO 2.6, CCSO 1.4.
Archaeology, Architectural and Cultural Heritage	To ensure the protection of the architectural heritage through the identification of Protected Structures, the designation of Architectural Conservation Areas, the safeguarding historic gardens, and the recognition of structures and elements that contribute positively to vernacular and industrial heritage. To protect, as set out in the Record of Protected Structures, all structures, which are of special architectural, historical, archaeological, artistic, cultural, scientific, social, or technical interest. To review the Record of Protected Structures periodically and add structures of special interest as appropriate, including significant elements of industrial, maritime or vernacular heritage and any twentieth century structures of merit.	CSO 1.7, AH P6, AH O21, AH O23, AH O33, AH P8, AH O48, AH O64, AH A21, HO O48, HO P17, SC O88, AH O2, AH O6, AH O8, AH O12, AH O14, AH O16, AH A6, AH P5, AH A7, AH O20, AH O23, AH O26, AH O28, AH O31, AH O33, AH A9, AH A11, AH A12, AH A13, AH P7, AH P8, AH O44, AH O45,	ED 41,ED 53, ED 74, ED 75, ED 76, ED 77, HER 2, HER 4, HER 14, HER 15, HER 18, HER 22, HER 26, HER 27, HER 28, RUR DEV SO 4, DM 58, DM 61, DM 64, DM 76, DM 104, DM 110.	BHO 1.1, BHO 1.2, BHO 1.3, BHO 3.5, BHO 3.6.

Aspect	Mitigation Measures	Relevant Object	tives	
		Kildare County Development Plan Objectives	Meath County Development Plan Objectives	Draft Joint LAP Objectives
		AH O50, AH A14, AH O58, AH O59, LR O4.		
	To ensure that new developments within or adjacent to an ACA respect the established character context of the area and contribute positively to the ACA in terms of design, scale, setting and material finishes. To protect existing buildings, structures, groups of structures, sites, landscapes and features such as street furniture and paving, which are considered to be intrinsic elements of the special character of the ACA, from demolition or removal and non-sympathetic alterations. To ensure that all new signage, lighting, advertising and utilities to buildings within an ACA are designed, constructed and located in a manner that does not detract from is complementary to the character of the ACA. AH O64, AH A21, AH O51, AH O64, AH A21, AH O64, AH A14, AH O64, AH O14, AH O74, AH O14, AH O74, AH O74, AH O75, AH O74, AH O75, AH O74, AH O75, AH O75, AH	ED 41, ED 74, ED 76, ED 77, INF 52, INF 74, HER 3, HER 17, HER 20, HER 21, HER 22, DM 76, DM 104.	TCO 1.2, TCO 1.3, BHO 1.4, BHO 1.5, BHO 2.1, BHO 2.2, BHO 2.3, BHO 2.4, BHO 2.5, BHO 2.9, BHO 3.3, MATO 4.6.	
	To safeguard sites, features and objects of archaeological interest generally. To secure the preservation (i.e. preservation in situ or in exceptional cases preservation by record) of all archaeological monuments included in the Record of Monuments and Places as established under Section 12 of the National Monuments (Amendment) Act, 1994, and of sites, features and objects of archaeological and historical interest generally; To have regard to the government publication Framework and Principles for the Protection of the Archaeological Heritage 1999 in relation to protecting sites, features and objects of archaeological interest. To protect and preserve archaeological sites discovered since the publication of the Record of Monuments and Places. To protect the Zones of Archaeological Potential located within both urban and rural areas as identified in the Record of Monuments and Places. To have regard to archaeological concerns	CSO 1.7, AH P6, AH O21, AH O23, AH O33, AH P8, AH O48, AH O64, AH A21, HO O48, HO P17, SC O88, AH O2, AH O6, AH O8, AH O12, AH O14, AH O16, AH A6, AH P5, AH A7, AH O20, AH O23, AH O26, AH O28, AH O31, AH O33, AH A9, AH A11, AH A12, AH A13, AH P7, AH P8, AH O44, AH O45, AH O50, AH A14, AH O58, AH O59, LR O4.	ED 41, ED 56, ED 59, ED 74, ED 77, SOC 46, HER 2, HER 3, HER 4, HER 7, HER 8, HER 9, HER 28, DM 58, DM 64, DM 76, DM 104, DM 110.	BHO 1.3, BHO 2.7, BHO 3.1, BHO 3.2, BHO 3.6.
	Potential located within both urban and rural areas as identified in the Record of Monuments and Places.	O44 , AH O45, AH O50, AH A14, AH O58, AH O59, LR		

Aspect	Mitigation Measures	Relevant Objectives		
		Kildare County Development Plan Objectives	Meath County Development Plan Objectives	Draft Joint LAP Objectives
	Monuments and Places and the Zones of Archaeological Potential.			
Landscape and Visual	Ensure that all new plans and programmes incorporate the findings of Meath and Kildare Landscape Character Assessments. To require that all proposed developments in Heritage Landscapes demonstrate that every effort has been made to reduce visual impact. This must be demonstrated for all aspects of the proposal- from site selection through to details of siting and design. All other relevant provisions of the development plan must be complied with. Protect and enhance the streetscape of Maynooth's Main Street through the appropriate control of alterations to existing buildings and the development of new structures; in particular building and roof lines and heights which diverge from the established form will require to be justified. To protect sensitive areas from inappropriate development while providing for development and change that will benefit the rural community. To ensure that proposed developments take into consideration their effects on views from the public road towards scenic features or areas and are designed and located to minimise their impact. To ensure that appropriate standards of location, siting, design, finishing, and landscaping are achieved.	CSO 1.7, HO O43, HO O48, RE O89, RE O98, RE O137, RE P24, TM O87, TM O96, TM O100, IN O46, EC O2, EC O27, EC O34, EC O35, EC O62, EC O66, EC O77, EC O78, RD O5, RD P6, RD O32, AH O9, AH O25, AH O26, AH O31, AH O38, AH P7, AH P8, AH O45, AH O49, AH O50, AH A14, AH O64, AH P1, AH O8, AH O50, LR P1, LR O1, LR O2, LR O3, LR O4, LR O6, LR O7, LR O9, LR O10, LR O13, LR O15, LR A1, LR A2, LR O30, LR O59, HO P1, RE O39, RET O62, SC O48, AH O38, HO O8, HO O48, RE O111, RE O137, RE O142, TM O101, EC O27, EC O78, LR O7, LR O28.	ED 22, ED 34, ED 54, ED 72, ED 74, MOV 58, INF 34, INF 39, INF 52, INF 53, HER 11, HER 23, HER 29, HER 48, HER 49, HER 50, HER 51, HER 52, HER 53, HER 56, HER 57, HER 60, RUR DEV SO 4, RUR DEV SO 6, RD 7, RD 9, RD 10, DM 1, DM 2, DM 3, DM 4, DM 10, DM 42, DM 43, DM 44, DM 57, DM 58, DM 61, DM 62, DM 63, DM 64, DM 67, DM 76, DM 77, DM 79, DM 85, DM 88, DM 93, DM 103, DM 104, DM 109, DM 110.	TCO 1.2, TCO 1.4, TCO 1.5, HCO 2.2, MATO 4.6, MEO 1.1, MEO 1.2.
Material Assets	Promote the implementation of the Waste Management Plan together with any future National or Regional Waste Management Plans. Additionally, ensure national policies and regulations regarding waste are adhered to.	IN O44, IN A4, RE O10, IN P6, IN O41, IN O43, IN O44, IN O45, IN O46, IN A4,	INF 54, INF 55, INF 56, INF 57, INF 58, INF 59, INF 60, INF 61, INF 62, INF 63, INF 64, INF 66,	IO1.3, IO 5.1, IO 5.3.
	Encourage waste prevention, minimisation, reuse, recycling and recovery as methods of managing waste.	RD O30, IN O39, IN O42, IN O50, IN O51, IN A4, IN A5, EC O15.	INF 67, INF 68, INF 69, DM 5, DM 51, DM 52, DM 53, DM 54, DM 61.	

Aspect	Mitigation Measures	Relevant Objectives		
		Kildare County Development Plan Objectives	Meath County Development Plan Objectives	Draft Joint LAP Objectives
	Promote the development of sufficient energy resources to meet the needs of the Plan area and promote the use of renewable energies to meet those needs.	HO O12, HO O13, HO O19, HO O46, RE O26, RE O67, RE O68, RE O71, RE O71, RE O73, RE O74, RE O75, RE 080, RE O108, TM O94, TM O95, EC O1, EC A1, EC P2, EC P3, EC O2, EC O3, EC O5, EC O6, EC O7, EC O8, EC O7, EC O8, EC O11, EC O12, EC O13, EC O11, EC O12, EC O13, EC O14, EC T1, EC P5, EC O18, EC O19, EC P7, EC P9, EC O34, EC P10, EC P11, EC O36, EC A4, EC O38, EC P14, EC O42, EC O43, EC P14, EC O42, EC O43, EC P10, EC P11, EC O36, EC A4, EC O38, EC P14, EC O42, EC O43, EC O55, EC O56, EC O57, EC O58, EC O56, EC O57, EC O68, RD P1, RD O2, RD O7, RD O10, RD O29, AH O37, LR O28, LR O60.	INF 39, INF 41, INF 42, INF 43, INF 47, INF 48, INF 50, DM 5, DM 76, DM 79, DM 81, DM 82, DM 88.	IO 4.3.
	Protect the hydrological environment from adverse effects of the wastewater discharges by ensuring that there is suitable wastewater treatment to meet demands before discharge to the environment.	IN O44, IN A4, RE O10, IN P6, IN O41, IN O43, IN O44, IN O45, IN O46, IN A4, RD O30, IN O39, IN O42, IN O50, IN O51, IN A4, IN A5, EC O15, HO P23, RE O10, RE O110,	INFO 11, INFO 13, INFO 19. ED 71, INF 11, INF 13, INF 19, DM 49.	IO 1.1, IO 1.3, IO 4.4, MWO 1.2.

Aspect	Mitigation Measures	Relevant Objectives			
		Kildare County Development Plan Objectives	Meath County Development Plan Objectives	Draft Joint LAP Objectives	
		IN P3, IN O12, IN O13, IN O14, IN O15, IN O18, IN O19, IN O28.			
	Promote the development of sustainable transportation infrastructure where considered feasible.	TM A8, TM A16, TM O56, CSO 1.12, RE O21, RE O38, RE P12, RE O125, TM P1, TM O10, TM P2, TM O13, TM A2, TM O27, RET O6, CSO 1.12, RE O9, RE P12, TM O3, TM O8, TM O11, TM A5, TM A7, TM A10, TM P3, TM O23, TM O24, TM O27, TM T5, TM T6, TM O67, TM A18, TM O88, TM O90, SC O26, SC O41, LR O85, TM O14, TM O17, TM O20, TM O22, TM A5, TM T2, TM T3, TM O23, TM O31, TM O45, TM O20, SC O26, SC O20, SC O26, SC O41, SC O59, SC O26, SC O41, SC O59, SC O79, SC O93, AH O32, LR O44, LR A11, LR O85, LR O86.	CS 15, CS 16, CS 17, ED 1, ED 10, ED 16, ED 25, ED 27, ED 52, ED 55, ED 79, ED 80, MOV 1, MOV 3, MOV 4, MOV 5, MOV 6, MOV 7, MOV 8, MOV 9, MOV 10, MOV 11, MOV 12, MOV 14, MOV 15, MOV 16, MOV 17, MOV 18, MOV 19, MOV 23, MOV 24, MOV 26, MOV 27, MOV 28, MOV 29, MOV 30, MOV 31, MOV 32, MOV 33, MOV 34, MOV 51, MOV 52, DM 68, DM 71, DM 72, DM 74, DM 75, DM 76, DM 96, DM 97, DM 98, DM 99, DM 100.	EDO 2.4, MATO 1.1, MATO 2.1, MATO 2.3, MATO 2.4, MATO 3.2, MATO 3.3, MATO 3.5, MATO 5.2, MATO 5.4, MATO 5.7, MWO 1.1, MWO 1.2, MEO 1.1, MEO 1.2.	

9.2 Monitoring

Article 10 of the SEA Directive requires that monitoring should be carried out in order to identify at an early stage any unforeseen adverse impacts associated with the implementation of the plan or programme.

A monitoring programme is developed based on the indicators selected to track progress towards achieving strategic environmental objectives and reaching targets, enabling positive and negative impacts on the environment to be measured. As previously described, the environmental indicators have been developed to show changes that would be attributable to implementation of the draft Joint LAP.

As outlined in the EPA guidance document 'Guidance on SEA Statements and Monitoring' (EPA, 2020), SEA monitoring should reflect the nature and level of detail of the plan/programme (EPA, 2020)⁷⁵.

Many national-level plans/programmes lack geographic specificity, contain only high-level strategic objectives and do not lend themselves to cause—effect models in terms of direct measuring of environmental effects. As such, SEA monitoring for these plans should focus on national indicators to examine environmental trends.

Refer to Table 9.2 for the proposed monitoring measures. The monitoring measures included are based on national indicators and informed by the content of the draft Joint LAP.

The SEA carried out has ensured that any potential significant environmental impacts have been identified and given due consideration.

KCC and MCC are responsible for collating existing relevant monitored data, the preparation of preliminary and final monitoring evaluation reports, the publication of these reports and, if necessary, the carrying out of corrective action.

Table 9.2 Proposed monitoring for the draft Joint LAP

Table 9.2 Propose			
Environmental Component	Indicators	Monitoring Sources	Frequency/Responsibility
Population and Human Health	 As follows: Noise and dust monitoring data from any developments taking place during the lifetime of the draft Joint LAP. Statistics on access to sustainable modes of transport. Number of new and or improved recreational facilities and or routes related to the draft Joint LAP. Perceived health/disturbance to the local community. Number of new and or improved recreational facilities and or routes related to the draft Joint LAP. Level of enhancement and presentation of heritage resources within the draft Joint LAP study area and the number of people visiting heritage resources within the draft Joint LAP study area. 	 As follows: Monitoring for KCC's Third Noise Action Plan 2019 – 2023. EPA Air Quality Monitoring. CSO Census Reports – Health, Population and Transport Statistics. Monitoring of the effects of capital investment project development required under separate processes (EIA, AA). CSO Census Reports – Health and Population Statistics. Monitoring of the effects of capital investment project development required under separate processes (EIA, AA). As follows: Monitoring related to County Kildare Heritage Plan 2019-2025. Monitoring related to County Meath Heritage Plan 2015-2020 	KCC, varies. EPA, continuously. CSO, every 6 years. In accordance with the monitoring provisions of EIA/AA. CSO, every 6 years. In accordance with the monitoring provisions of EIA/AA. KCC, county Kildare Heritage Forum, every six years. MCC, varies.

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⁷⁵ EPA (2020) Guidance on SEA Statements and Monitoring. Available at: <u>Strategic Environmental Assessment | Environmental Protection Agency (epa.ie)</u>

Environmental Component	Indicators	Monitoring Sources	Frequency/Responsibility
Biodiversity	 Presence and status of existing biodiversity in the draft Joint LAP study area. Level of biodiversity gain achieved as a result of the implementation of the draft Joint LAP. Conservation status/habitat quality for all sites and species positively impacted over the lifetime of draft Joint LAP. Level of biodiversity lost as a result of the implementation of the draft Joint LAP. As follows: Location and scale of new development arising as a result of the draft Joint LAP. The number of provisions of green/blue infrastructure within the draft Joint LAP study area. 	 The Status of EU Protected Habitats and Species in Ireland Article 17 Report (Department of Housing, Local Government and Heritage). Monitoring related to the draft Joint LAP, e.g. stepping-stones habitats and associated biodiversity. The Status of EU Protected Habitats and Species in Ireland Article 17 Report (Department of Housing, Local Government and Heritage). As follows: Monitoring related to draft	 DHLGH, every 6 years. KCC, varies. DHLGH, every 6 years. As follows: In accordance with the monitoring provisions of the higher and same-level plans. KCC, annual review of the of Biodiversity Action Plan. MCC, varies. In accordance with the monitoring provisions of EIA/AA.
Land and Soil	 Incidences of spillages/leaks reported during any construction, operation or maintenance works during the lifetime of the draft Joint LAP. Rates of brownfield/greenfield sites and contaminated land reuse and development. Achievement of the Objectives of the Southern Region Waste Management Plan 2015-2021. 	As follows: Monitoring of the effects of capital investment project development required under separate processes (EIA, AA) EPA State of the Environment Report 2020. As follows: Monitoring related to the draft Joint LAP, other relevant Local Area Plans and County/City Development Plans or RSES's. Tailte Éireann/EPA mapping resurvey. The annual report on the implementation of the Eastern-Midlands Region Waste Management Plan.	As follows: In accordance with the monitoring provisions of EIA/AA. EPA, every 4 years. As follows: In accordance with the monitoring provisions of the same or higher-level plans. Tailte Eireann/EPA, varies. The Regional Waste Office, annually.

Environmental Component	Indicators	Monitoring Sources	Frequency/Responsibility
Water	 As follows: Status and quality of waterbodies, and status of related species in and surrounding the draft Joint LAP study area. Compliance of surface and ground waters with national and international standards. Number and location of Nature-Based Solutions incorporated into the draft Joint LAP study area. As follows: Number of past flood risk events within the draft Joint LAP study area. Annual costs of damage related to flood events within the draft Joint LAP study area. 	 As follows: The Status of EU Protected Habitats and Species in Ireland Report (Department of Housing, Local Government and Heritage). Ireland's National Water Framework Directive Monitoring Programme, 2019-2021. River Basin Management Plan for Ireland 2018 -2021 (2022 – 2027). EPA Water Quality of Ireland 2020 Report. Monitoring of the effects of capital investment project development required under separate processes (EIA, AA). As follows: Monitoring in the Review of Flood Risk Management Plans 2021. Monitoring for the EPA Catchments Unit and Local Authority Waters Programme. 	 As follows: DHLGH, every 6 years. EPA, continuously. EPA, continuously. In accordance with the monitoring provisions of EIA/AA. As follows: OPW, every 3 years. EPA Catchment Unit, DHLGH and relevant local authorities, varies.
Air, Noise and Climate	General air quality/ noise monitoring results within and surrounding the draft Joint LAP study area. As follows: Number of compliances with existing legislation/regulations/conditions for air quality e.g., IPPC/IE. Traffic, Transport and Vehicular survey data with the draft Joint LAP study area. As follows: Implementation of the draft Joint LAP, which will contribute towards the overall CDP's and facilitate climate action and the relevant targets for emission reductions. Energy consumption, the amount of uptake in renewable options and solid fuels for residential heating. As follows: Travel patterns and the number of modes of active transport within the draft Joint LAP study area. Proportion of journeys made by private fossil fuel-based car compared to previous levels. Proportion of people reporting regular cycling / walking to	As follows: Air Quality Monitoring Stations around Ireland. Monitoring for KCC's Third Noise Action Plan 2019 – 2023. Monitoring for MCC's Noise Action Plan 2019. Monitoring of the effects of capital investment project development required under separate processes (EIA, AA). As follows: Monitoring of licensed sites within the draft Joint LAP. Air Quality Monitoring Stations around Ireland. CSO Census Reports – Health, Population and Transport Statistics. As follows: Monitoring related to the draft Joint LAP, other relevant Local Area Plans and County/City Development Plans or RSES's. Sustainable Energy Authority of Ireland (SEAI) Monitoring of Renewable Energy Sources in Ireland.	1. As follows: - EPA, continuous. - KCC, varies. - MCC, varies. - In accordance with the monitoring provisions of EIA/AA. 2. As follows: - EPA, varies. - EPA, continuous. - CSO, every 6 years. 3. As follows: - In accordance with the monitoring provisions of the same or higher-level plans. - SEAI, varies. - KCC, every 5 years. 4. As follows: - In accordance with the monitoring provisions of the same or higher-level plans. - KCC, every 5 years. 4. As follows: - In accordance with the monitoring provisions of the same or higher-level plans. - KCC, every 5 years. - CSO, every 6 years.

Environmental Component	Indicators	Monitoring Sources	Frequency/Responsibility
	school and work above previous CSO figures. No deterioration of features of archaeological/ architectural/ cultural significance as a result of the implementation of the draft Joint LAP. 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 draft Joint LAP in line with Kildare's and Meath's CDP's. 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 draft Joint LAP in line with Kildare and Meath's CDP's. As follows: Number of uninhabited and derelict structures within the draft Joint LAP study area. Recorded numbers of nondesignated built heritage e.g., vernacular buildings.	 Monitoring sources Monitoring related to Local Authority Climate Action Plans, As follows: Monitoring related to the draft Joint LAP, other relevant Local Area Plans and County/City Development Plans or RSES's. Monitoring related to Local Authority Climate Action Plans. CSO Census Reports – Population and Transport Statistics. As follows: An Bord Pleanála/Kildare County Council/ Meath County Council Planning Records. Registers of nationally protected sites and structures. The National Inventory of Architectural Heritage. Monitoring of the effects of capital investment project development required under separate processes (EIA, AA). As follows: Monitoring related to relevant Local Area Plans and County/City Development Plans or RSES's. County Kildare Heritage Plan 2019-2025. County Meath Heritage Plan 2015-2020. 	As follows: Planning records from An Bord Pleanála, KCC or MCC should be reviewed and recorded at least at the plan min-term review stage. Assessment and recording of trends are recommended on an annual basis if feasible. NPWS (National Parks and Wildlife Services), NMS (National Monuments Service), UNESCO, continually. The Department of Housing, Local Government and Heritage are responsible for monitoring the conditions of, recording the presence of, and conserving Ireland's protected sites on a routine basis. In accordance with the monitoring provisions of EIA/
			AA. • As follows: - The Heritage Council, varies. - KCC, County Kildare Heritage Forum, every six years.
Landscape and	No deterioration of landscape or	As follows:	MCC, varies.1. As follows:
Landscape and Visual	areas with scenic value e.g., landscape sensitive areas, protected views etc., as a result of the	Monitoring related to the draft Joint LAP, other relevant Local Area Plans	In accordance with the monitoring provisions of the same

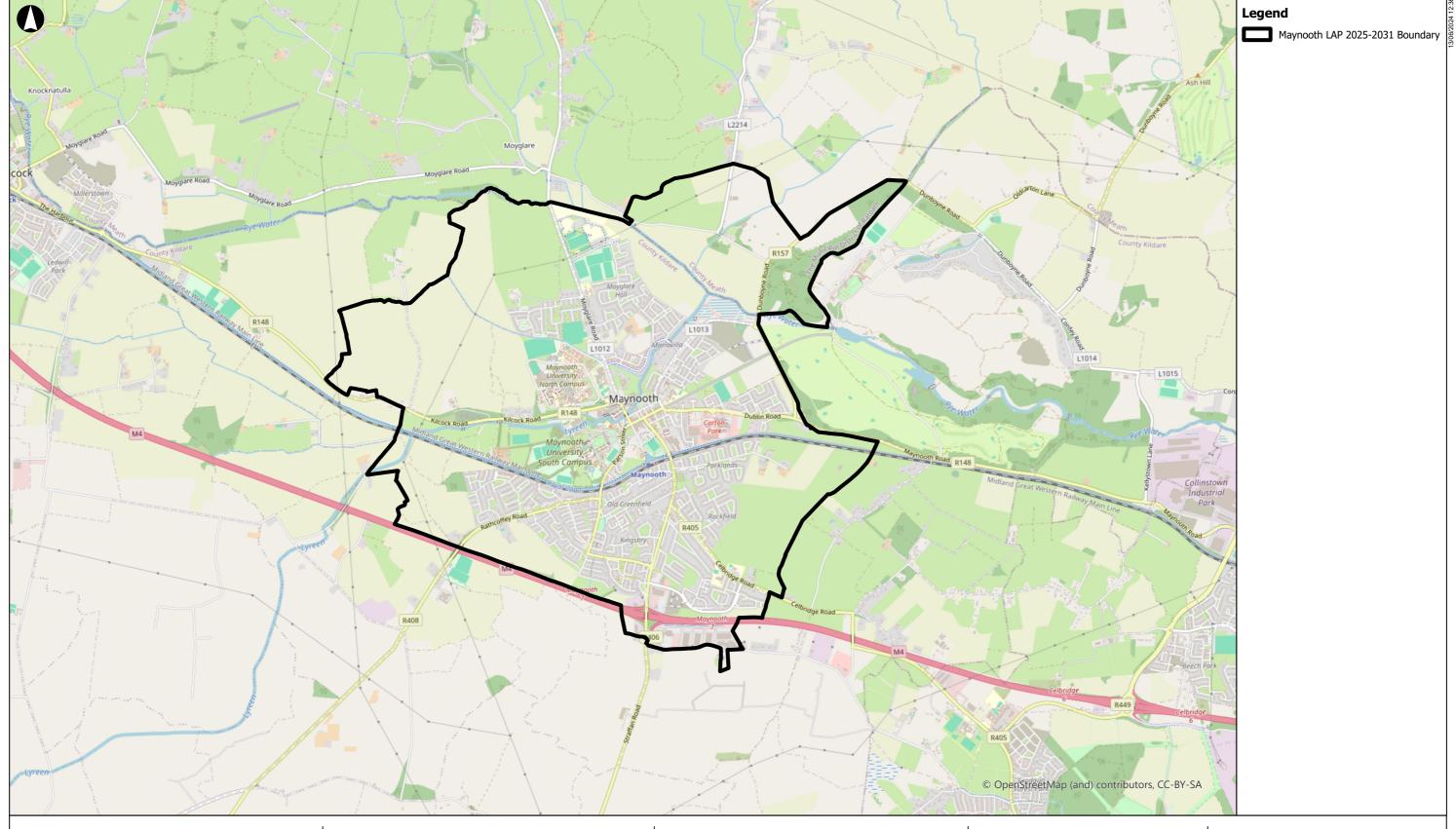
Environmental Component	Indicators	Monitoring Sources	Frequency/Responsibility
	 implementation of the draft Joint LAP. As follows: Compliance with planning conditions relating to landscape and development. Number of planning permissions granted in areas of high value landscape. Number of permissions granted within 500m of a scenic route. 	and County/City Development Plans or RSES's. Monitoring of the effects of capital investment project development required under separate processes (EIA, AA). As follows: An Bord Pleanála Planning Records. Monitoring related to the draft Joint LAP, other relevant Local Area Plans and County/City Development Plans or RSES's e.g., Landscape Character Assessments as part of County Development Plans.	and higher-level plans. In accordance with the monitoring provisions of EIA/AA. 2. As follows: Planning records from An Bord Pleanála or relevant County Council Authority should be reviewed and recorded at least at the plan min-term review stage (3 years). Assessment and recording of trends are conducted on an annual basis where possible. In accordance with the monitoring provisions of the lower-level plans – Relevant Local Authority - KCC, MCC continuously.
Material Assets	 Location and or level of infrastructure arising as a result of the draft Joint LAP. Travel patterns and the number of sustainable modes of transport within the draft Joint LAP study area. Quantity of waste generated, and levels of waste reused or recycled in the draft Joint LAP study area. Level of capacity upgrades to existing water treatment plants. 	 As follows: An Bord Pleanála Planning Records. Monitoring of the effects of capital investment project development required under separate processes (EIA, AA). Monitoring related to the draft Joint LAP relevant Local Area Plans and County/City Development Plans or RSES's. As follows: EPA National Waste Statistics Summary Report. The annual report on the implementation of the Eastern-Midlands Region Waste Management Plan. As follows: Monitoring for the EPA's Remedial Action List. EPA Urban Wastewater Treatment Reports. 	As follows: Planning records from An Bord Pleanála or relevant County Council Authority should be reviewed and recorded at least at the plan min-term review stage (3 years). Assessment and recording of trends are conducted on an annual basis where possible. In accordance with the monitoring provisions of EIA/AA. In accordance with the monitoring provisions of the lower-level plans – Relevant Local Authority KCC, MCC continuously. As follows: EPA, annually. The Regional Waste Office, annually. The EPA releases a Remedial Action List every Quarter which identifies problems with drinking water supply. KCC should have regard to issues pertaining to Uisce Éireann

Environmental Component	Indicators	Monitoring Sources	Frequency/Responsibility
			wastewater treatment plants in County Kildare • The EPA publish an Urban Wastewater Treatment Report each year which identifies areas in Ireland where there are issues with treatment and effluent quality as well as capacity issues. KCC should have regard to issues pertaining to Uisce Éireann wastewater treatment plants in County Kildare.

Appendix A

Combined Figures









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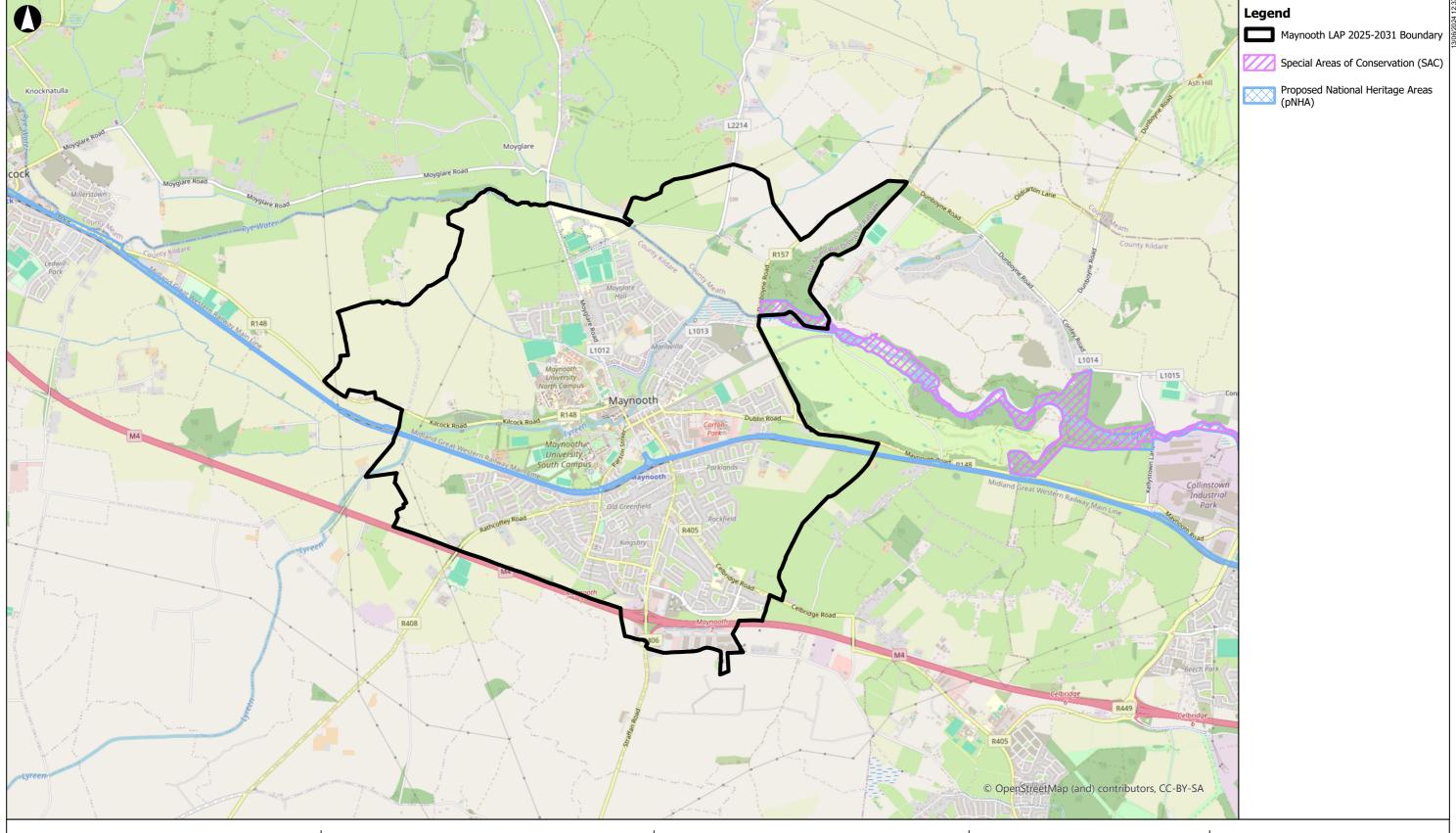
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Extent of the Plan (LAP Boundary)

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Ireland

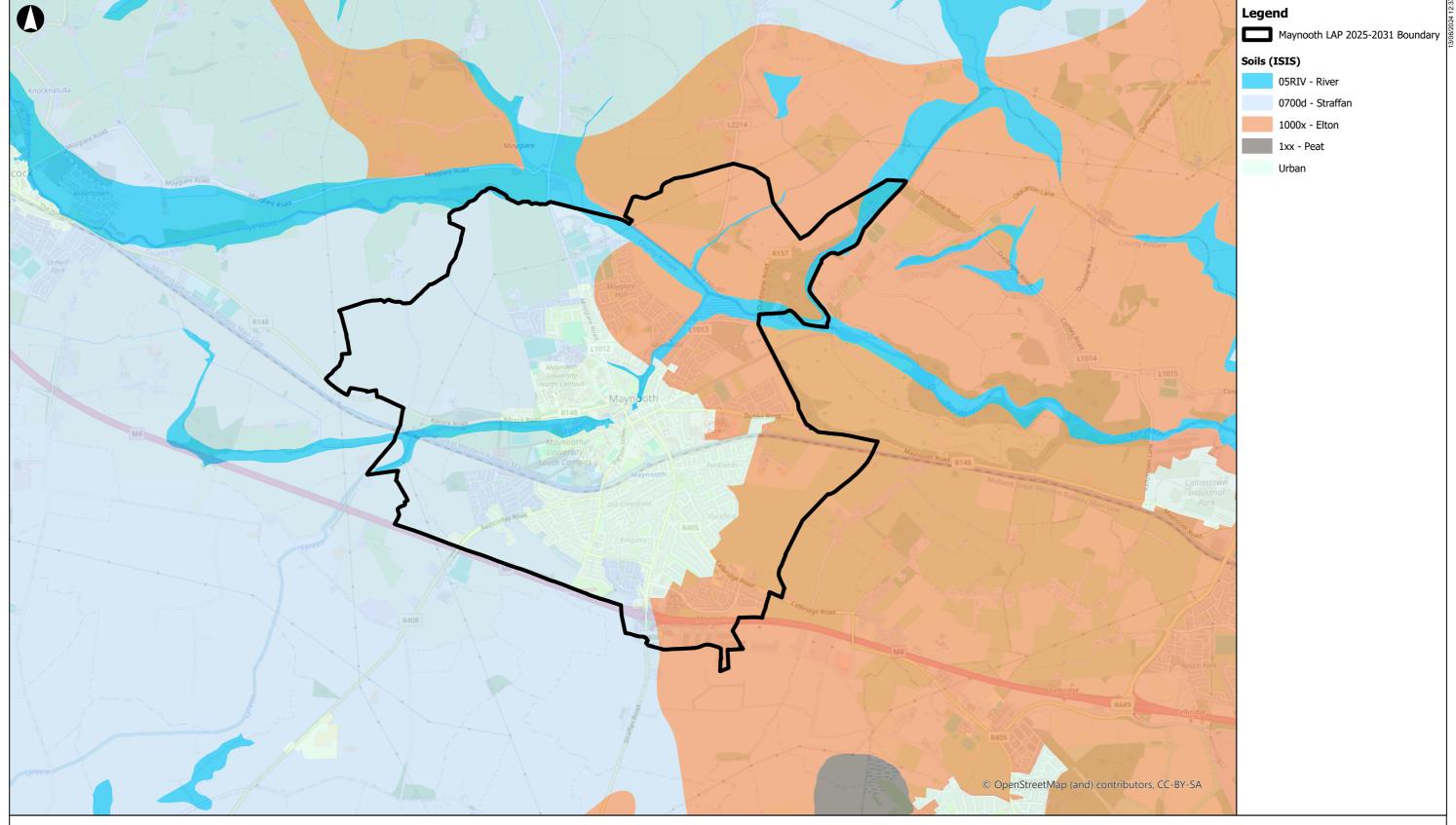
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Natura 2000 Sites in the Republic of Ireland (National Parks & Wildlife Service)

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Scale at A3	
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Figure Number	
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Arup Job No	Rev
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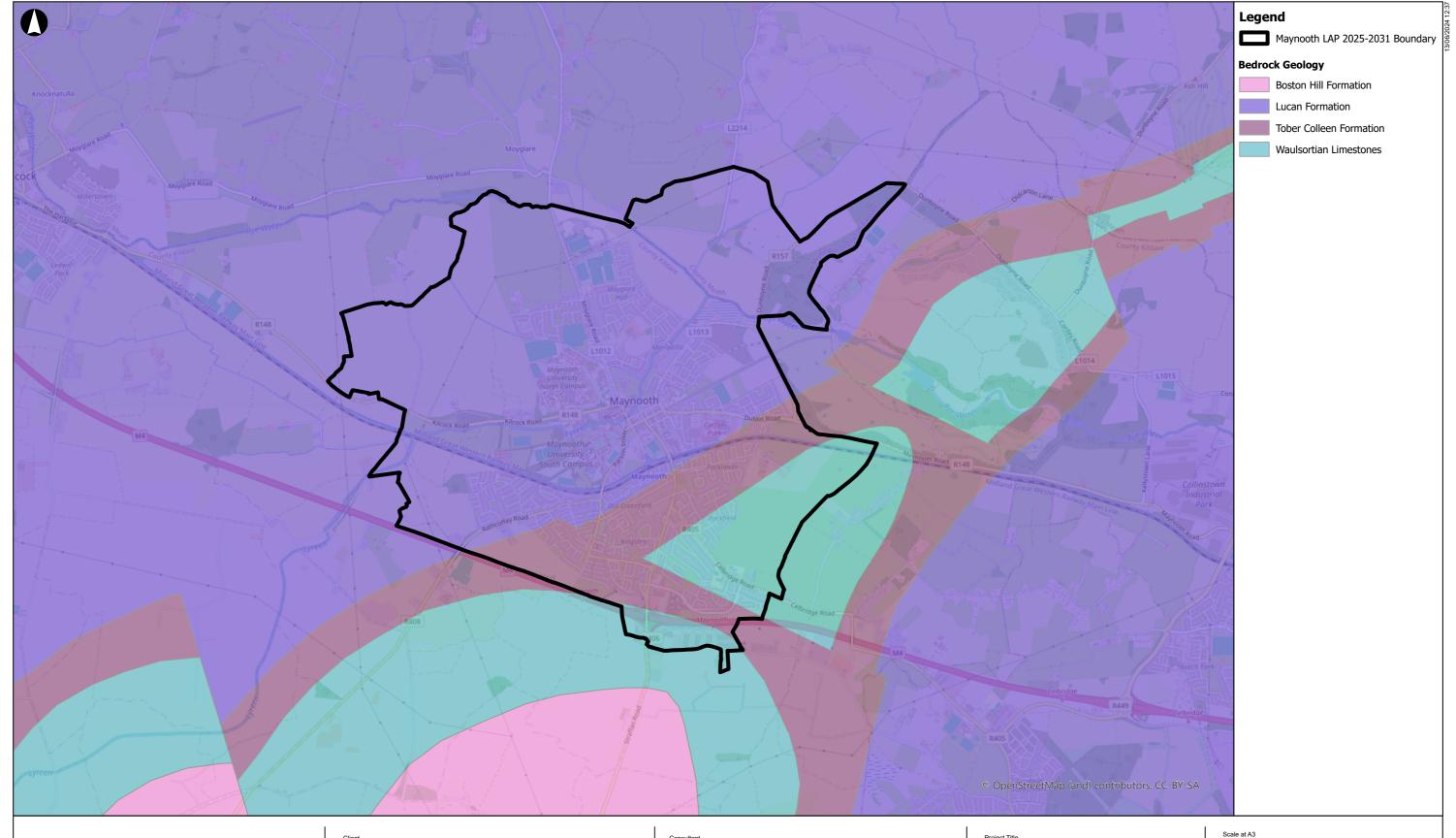
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Drawing Title

Teagasc Soils

Scale at A3 1:30,000 13/06/2024

Fig A3 Arup Job No 278388-00





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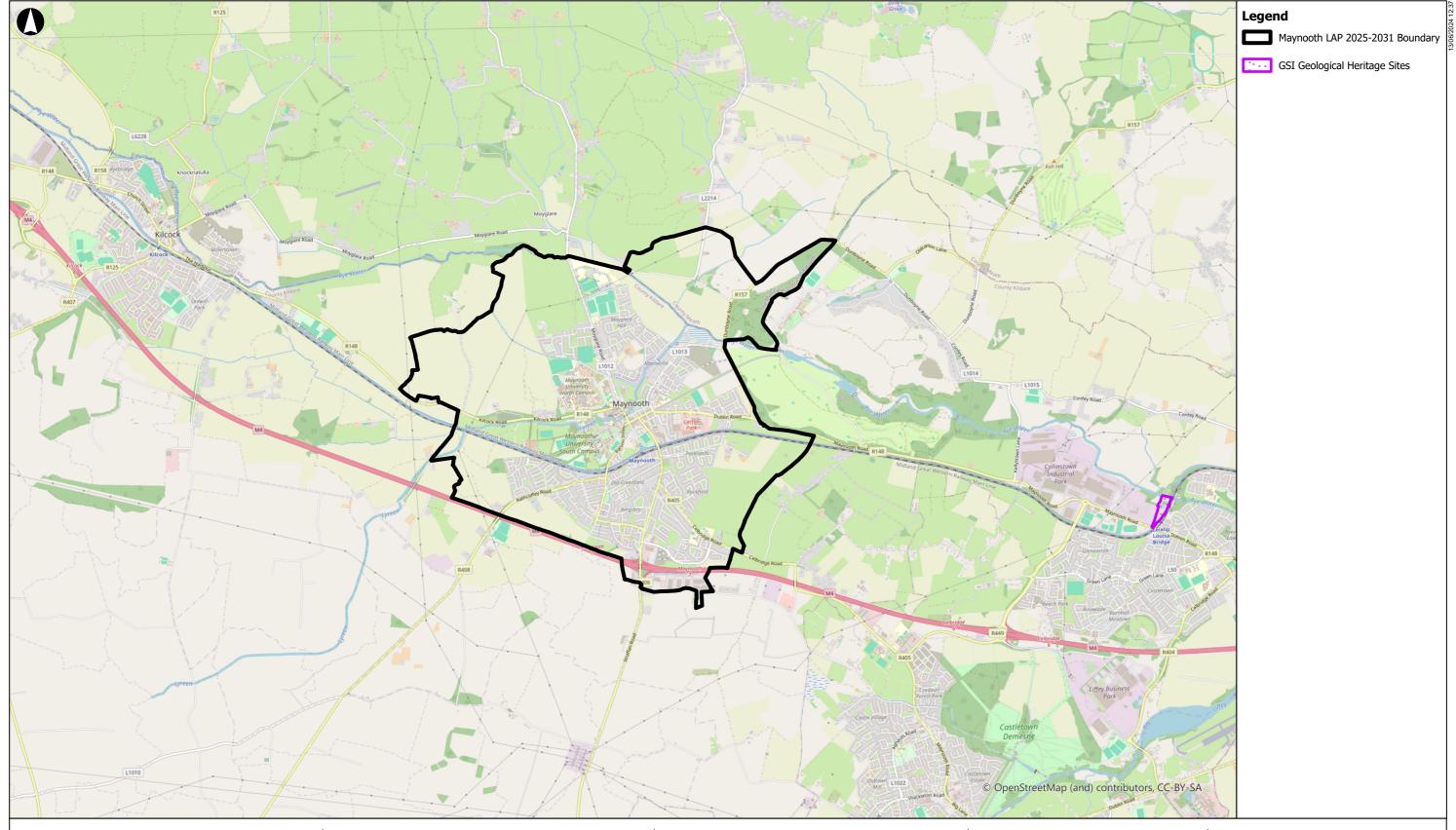
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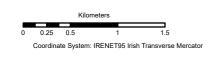
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GSI Bedrock Geology

1:30,000 13/06/2024 Fig A4 Arup Job No 278388-00







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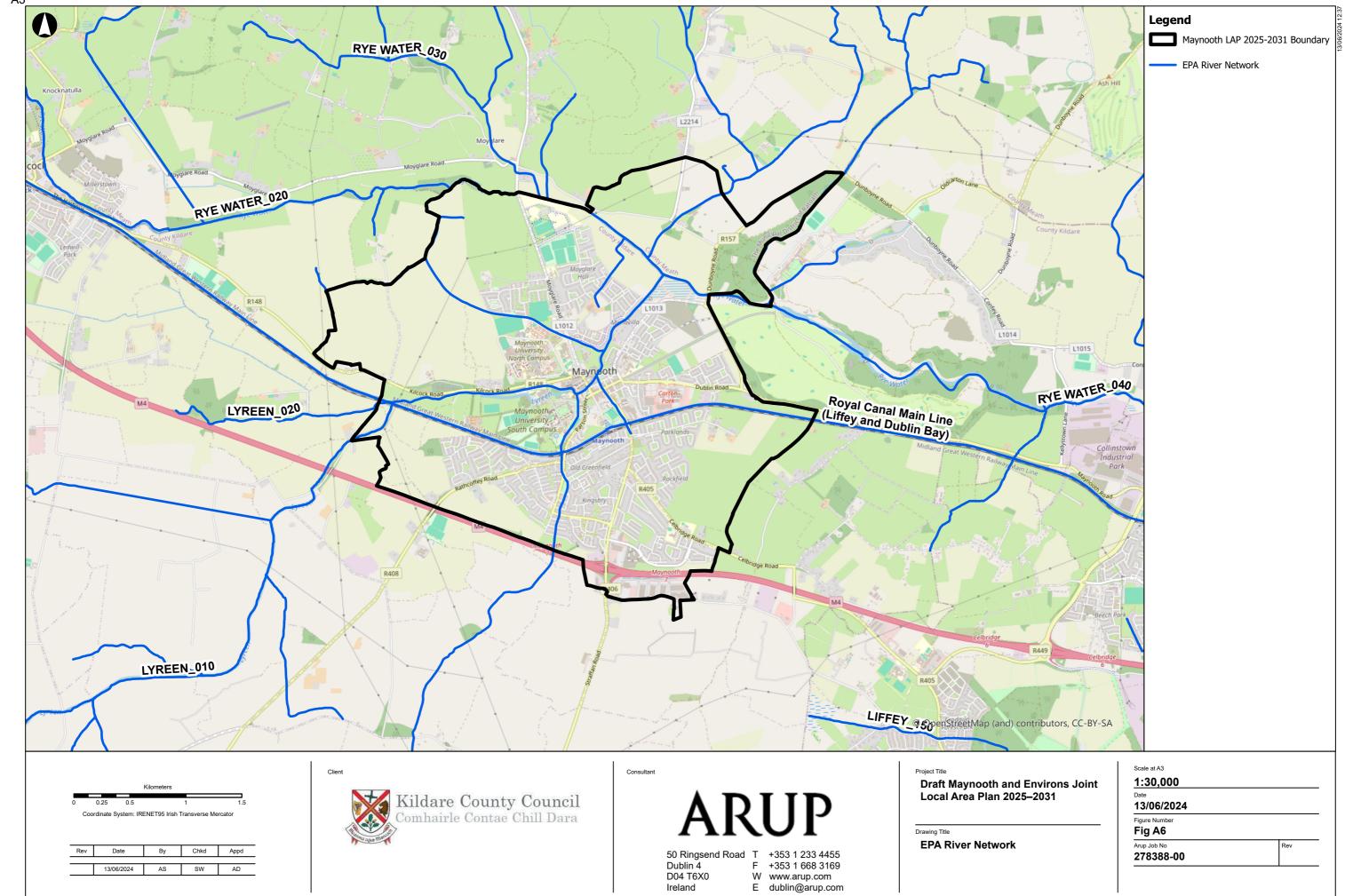
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GSI Geological Heritage Sites

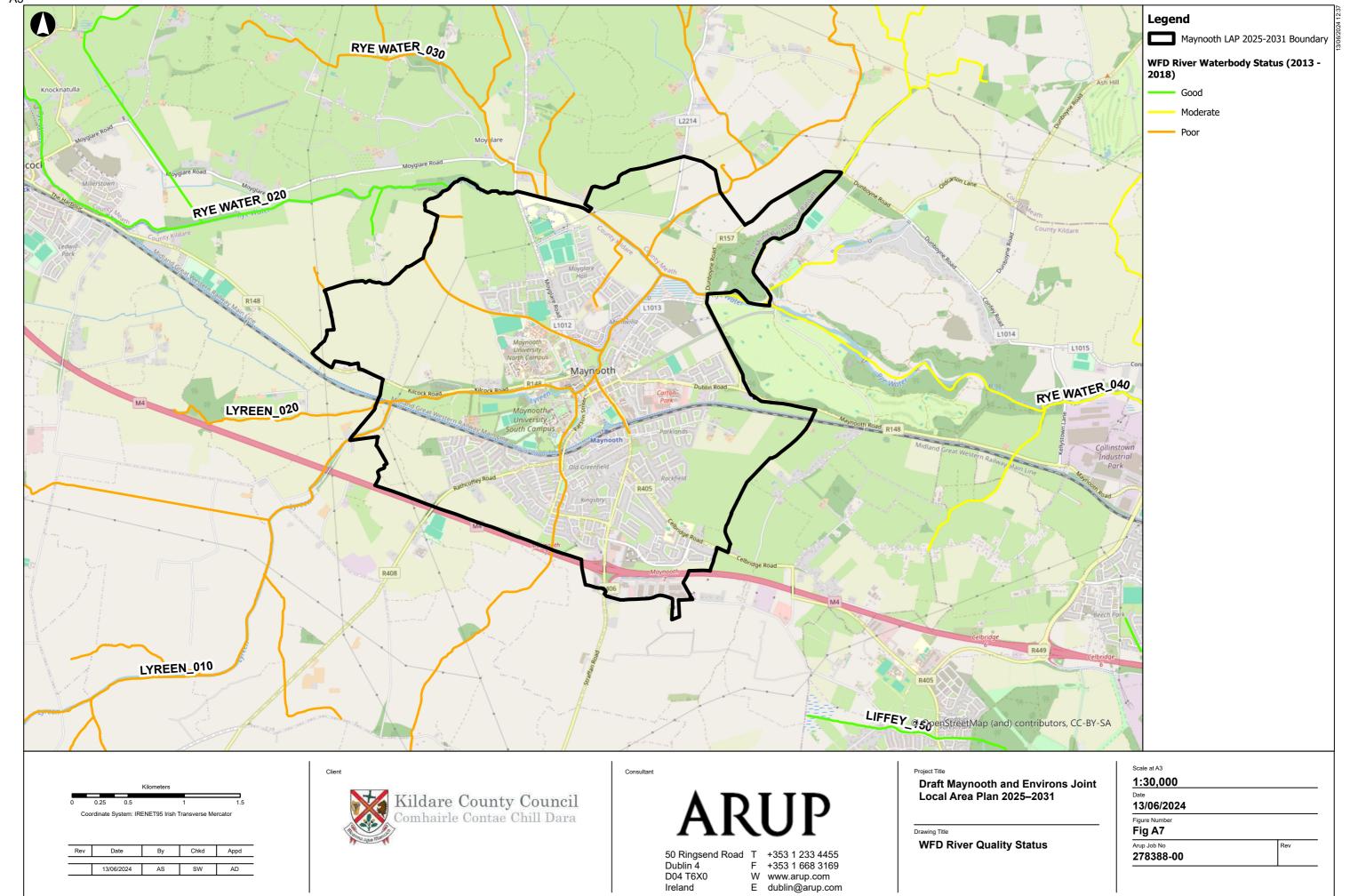
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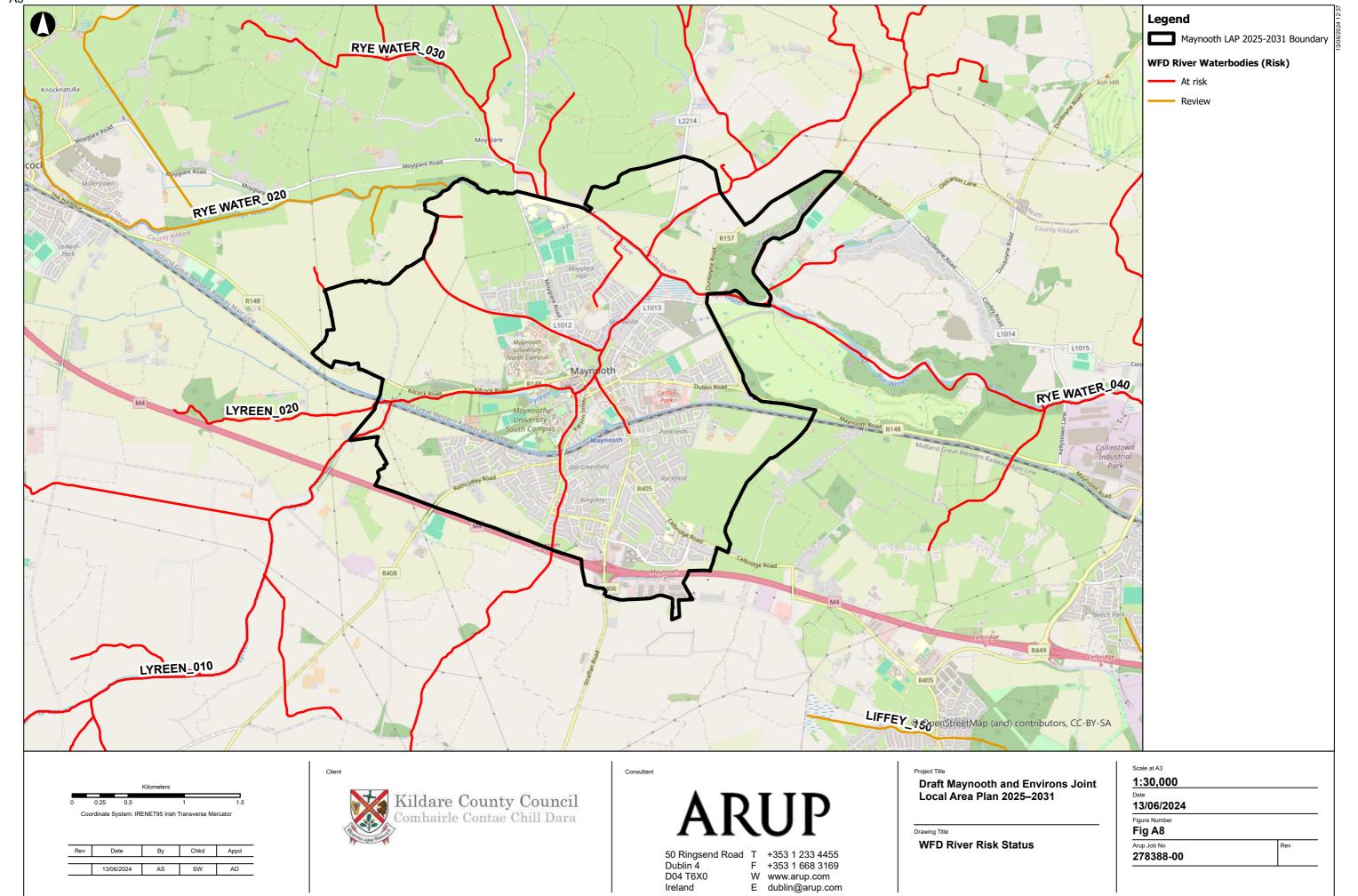


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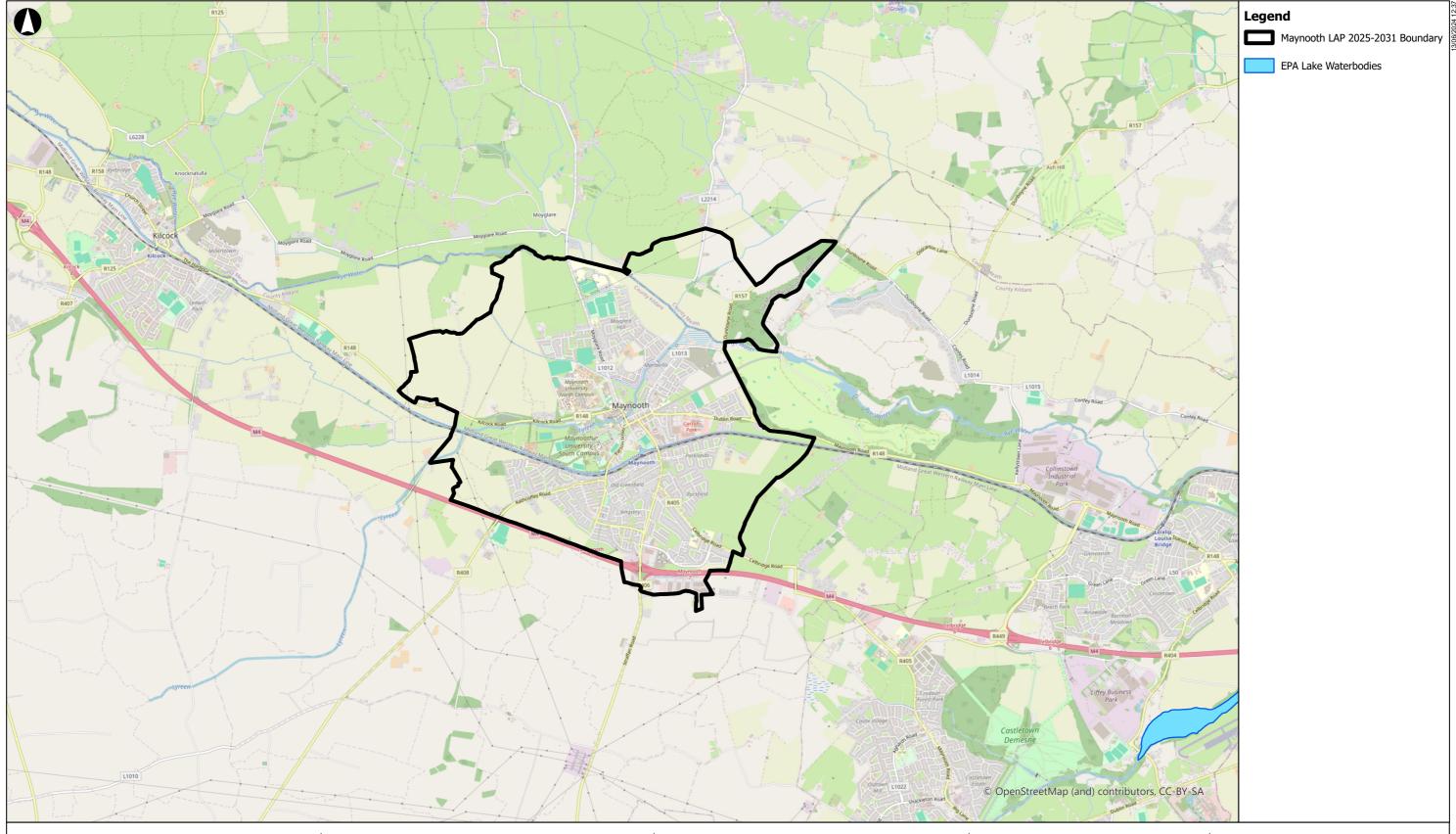


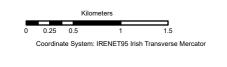














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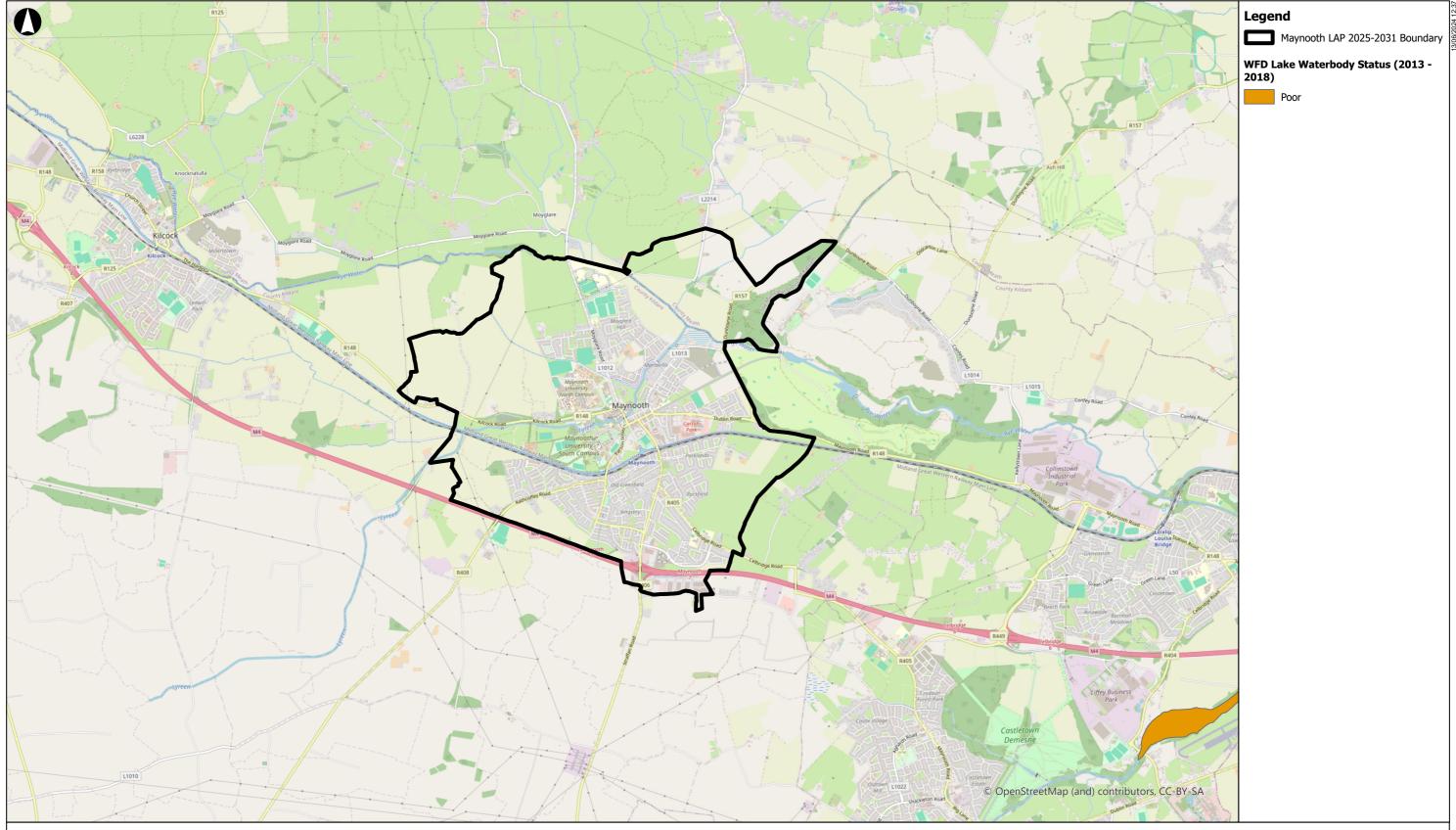
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EPA Lake Network

Scale at A3 1:40,000 13/06/2024 Fig A9 Arup Job No 278388-00







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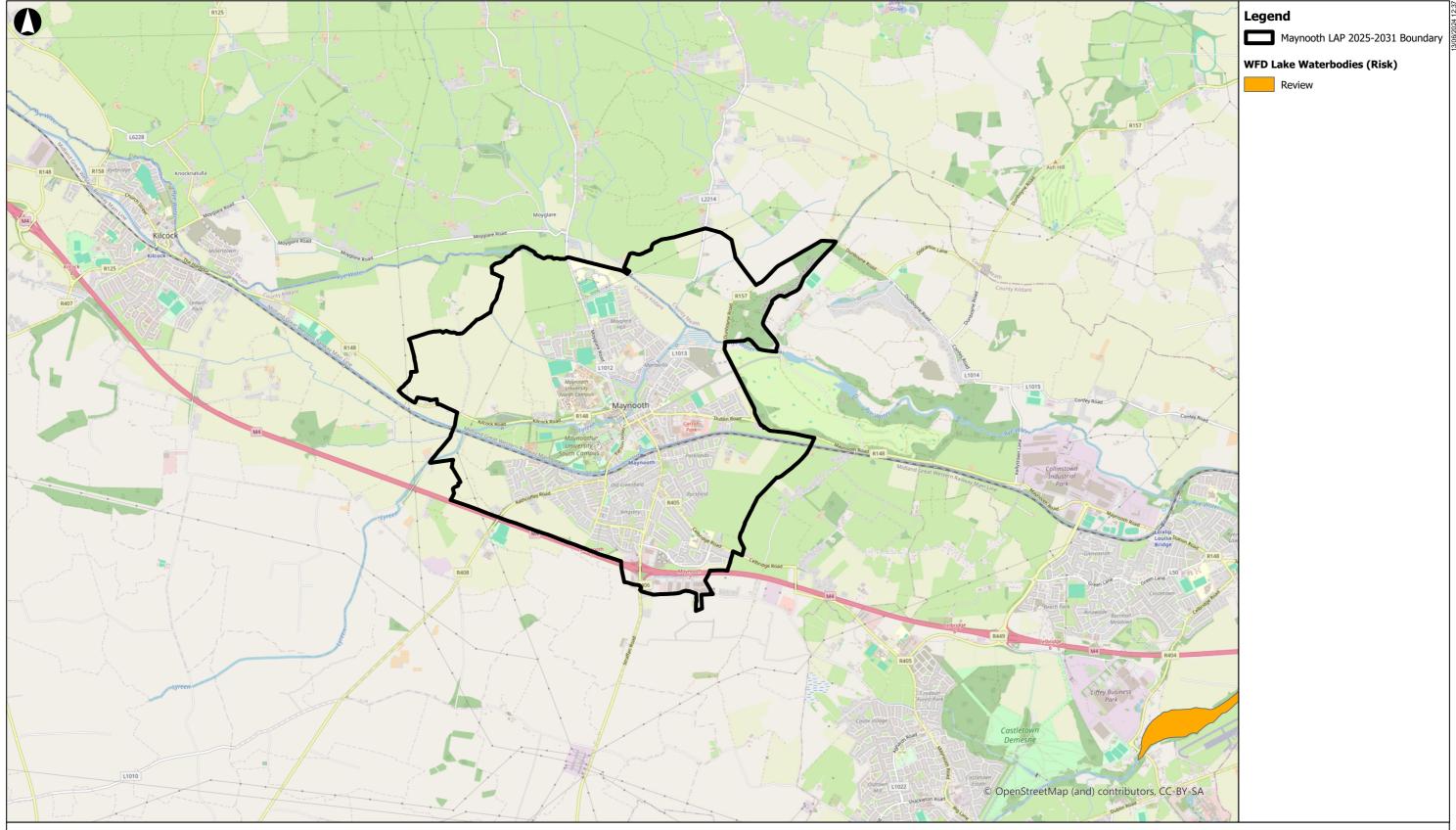
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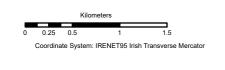
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WFD Lake Quality Status

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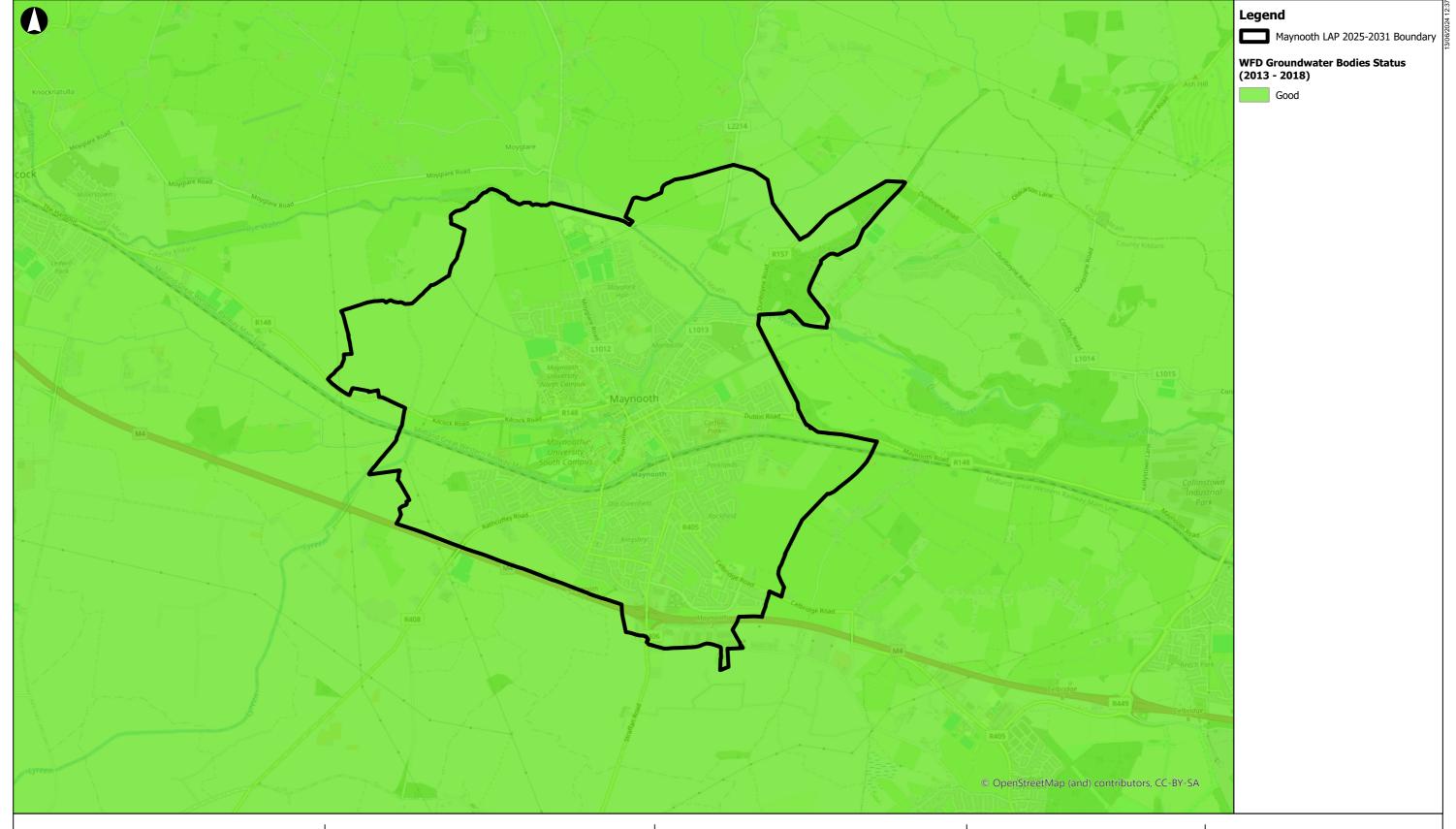
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WFD Lake Risk Status

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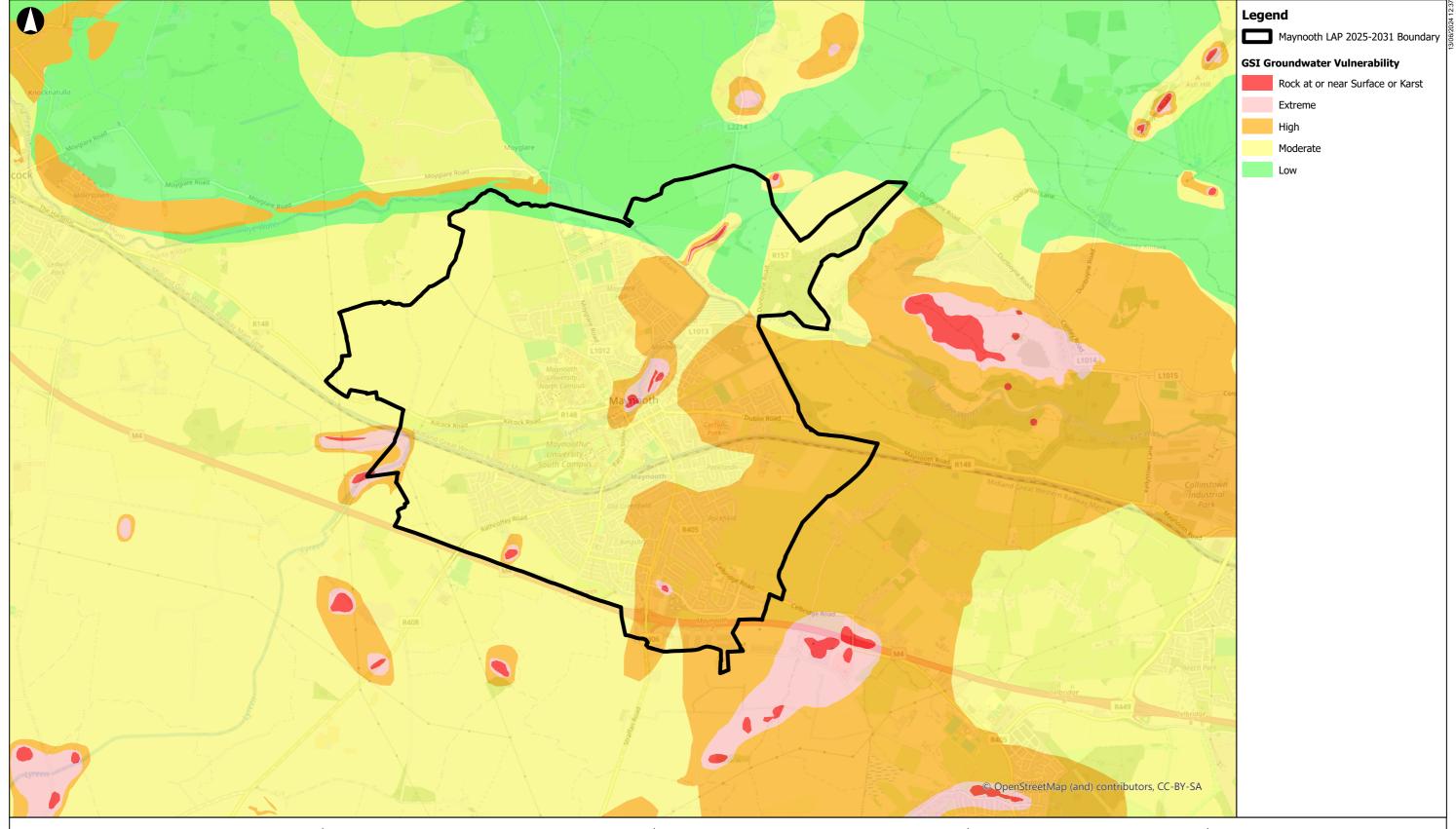
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WFD Groundwater Body Quality Status

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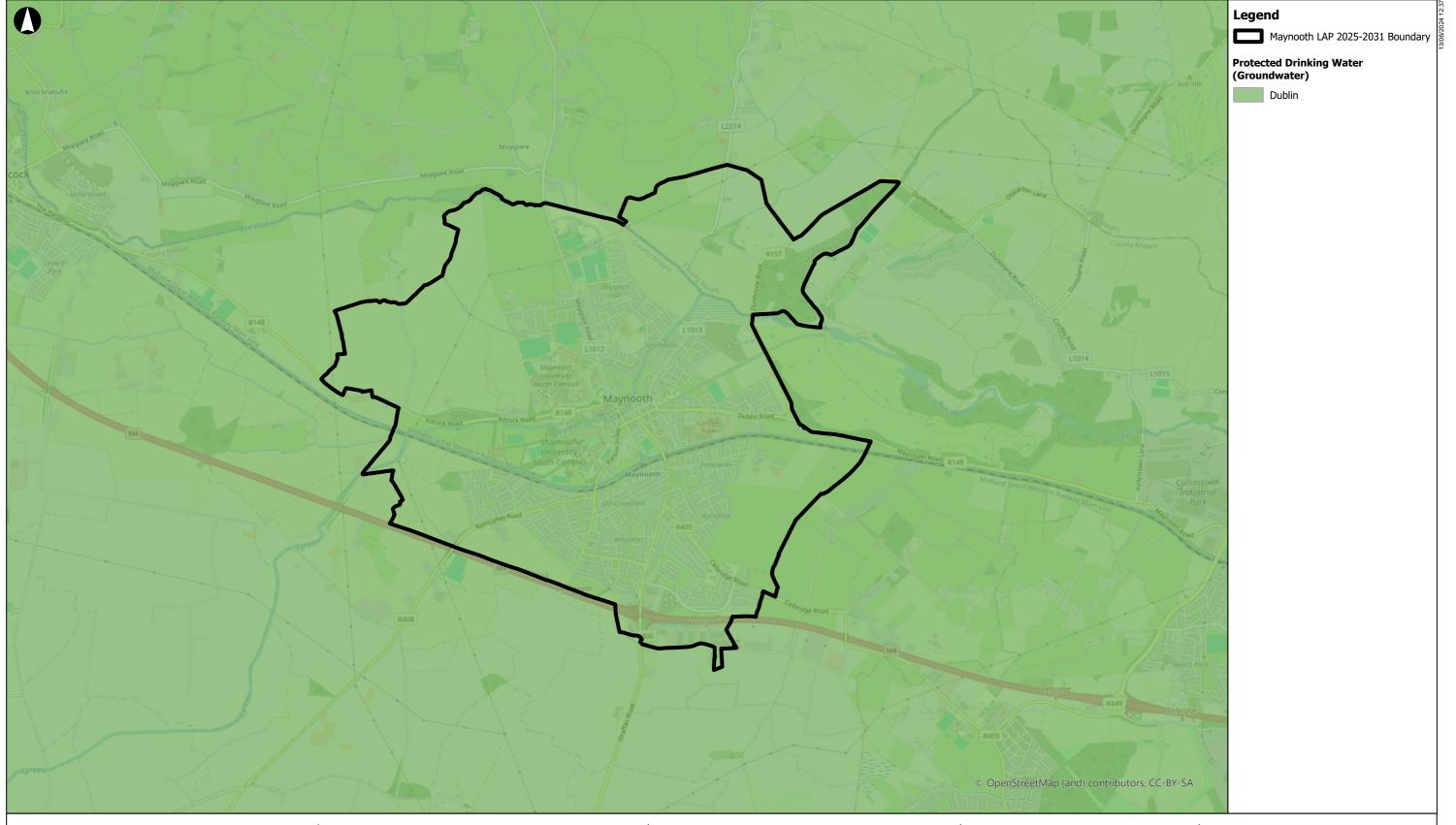
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GSI Groundwater Vulnerability

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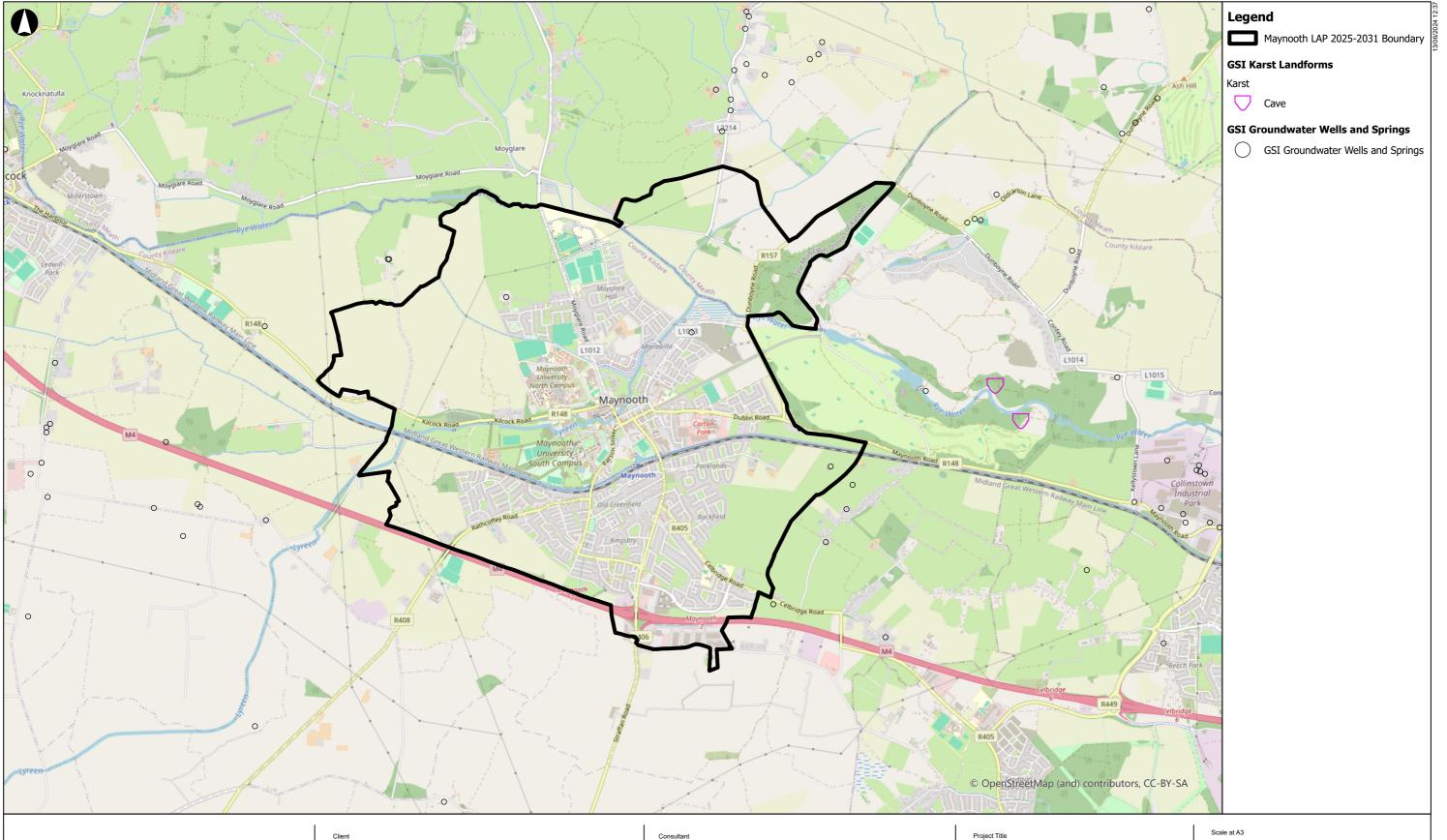
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Protected Drinking Water (Groundwater)

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Ireland

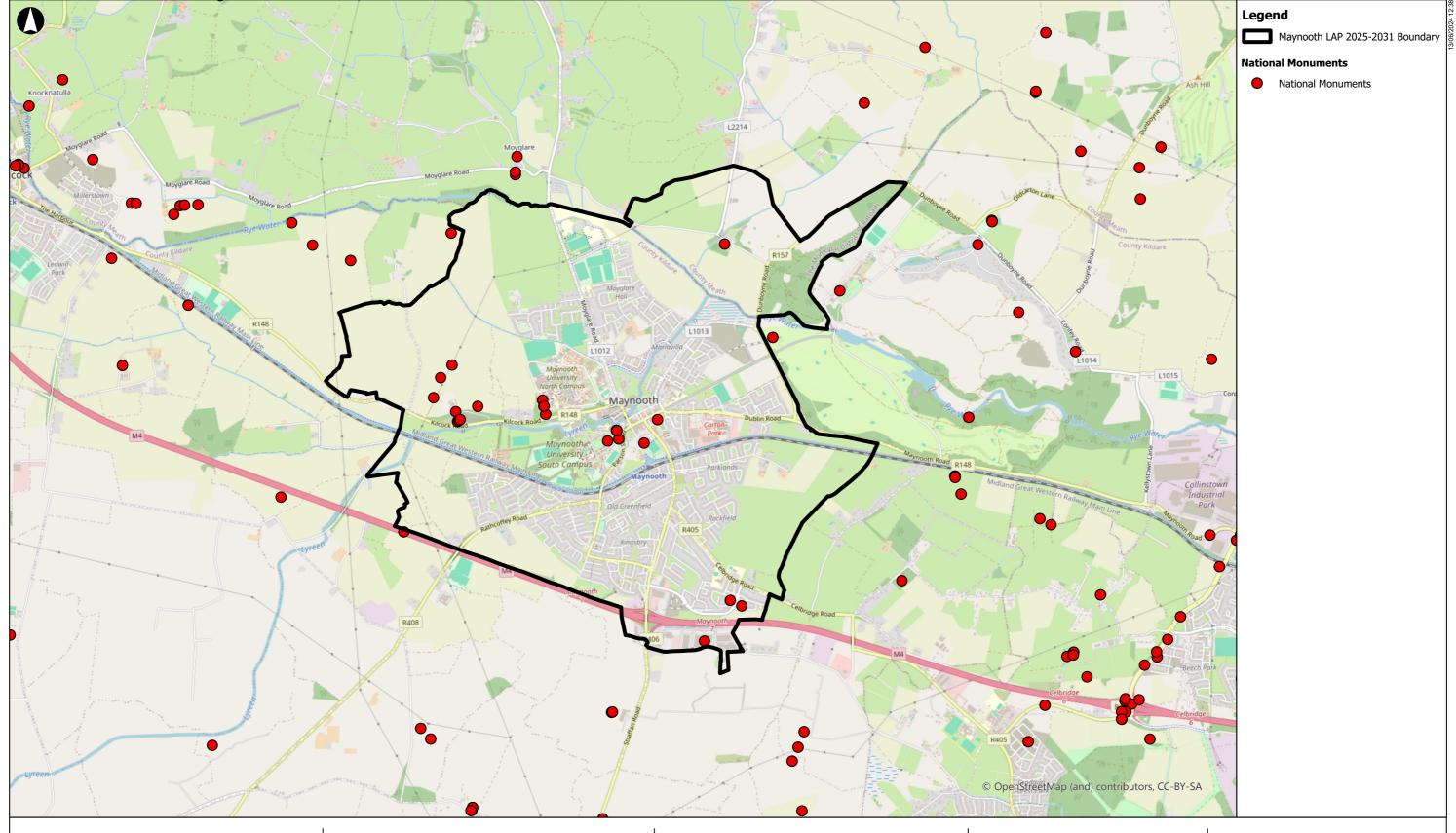
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GSI Groundwater Features and Public Supply Source Protection Zones

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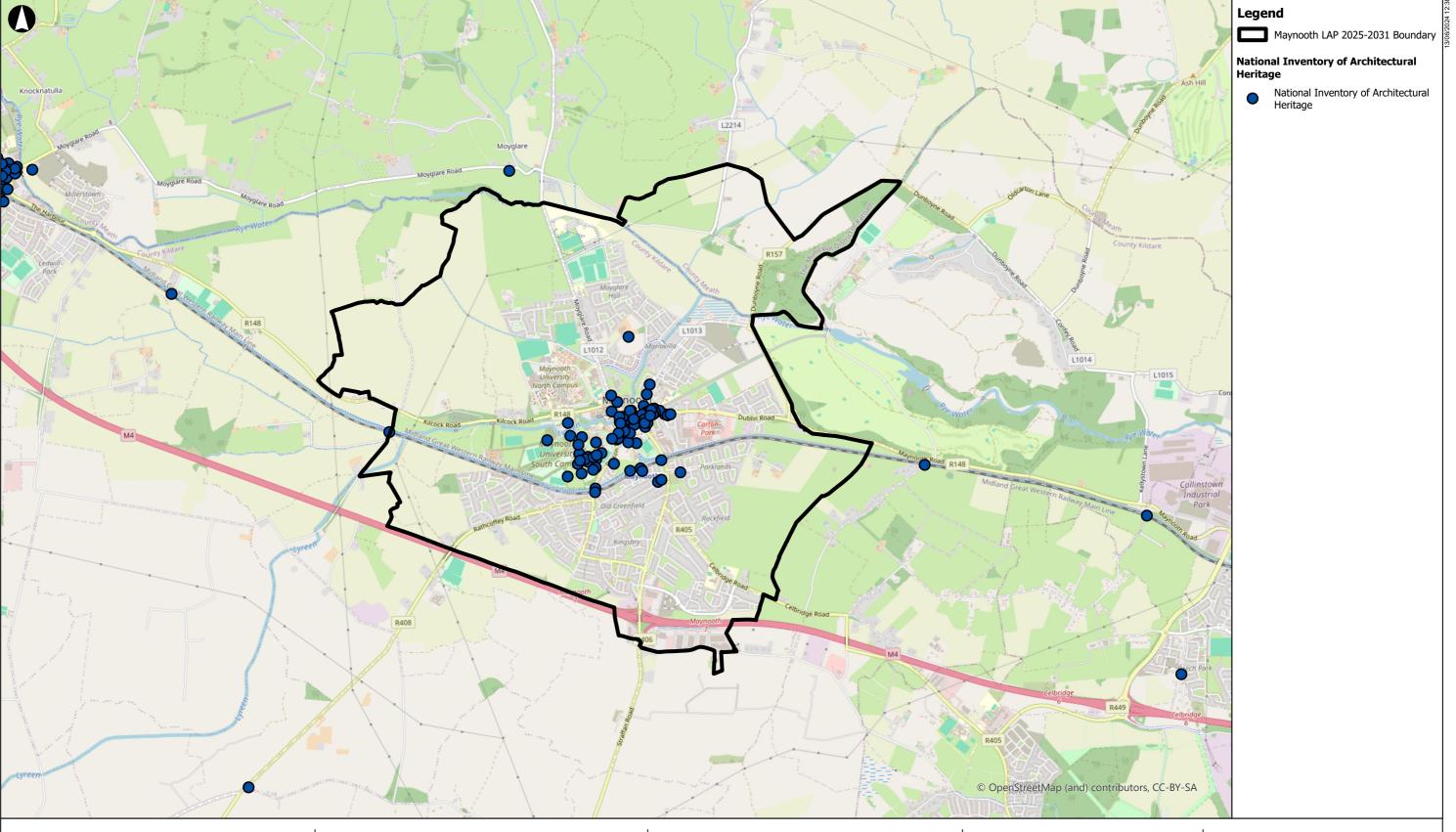
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National Monuments

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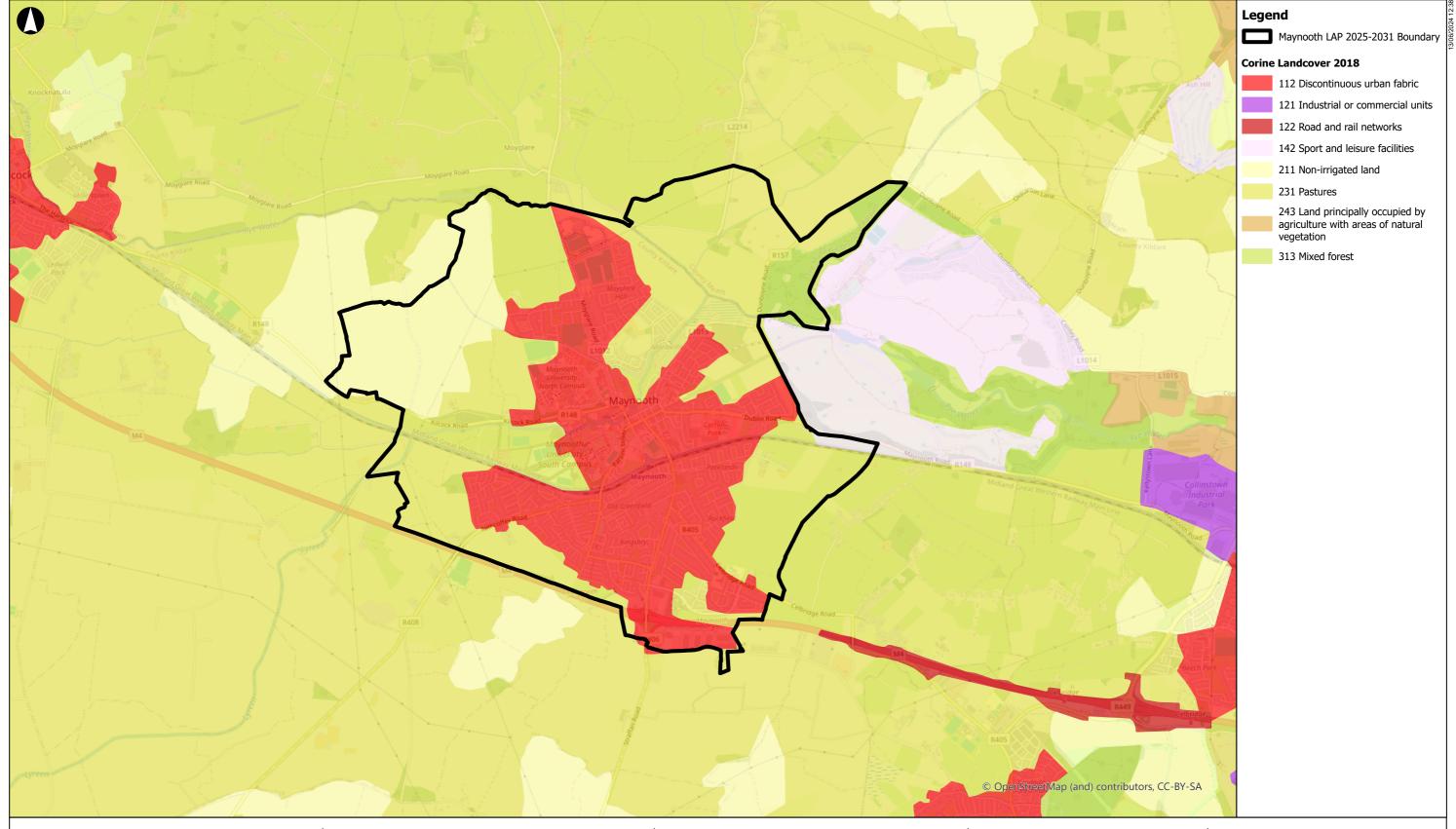
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Protected Structures

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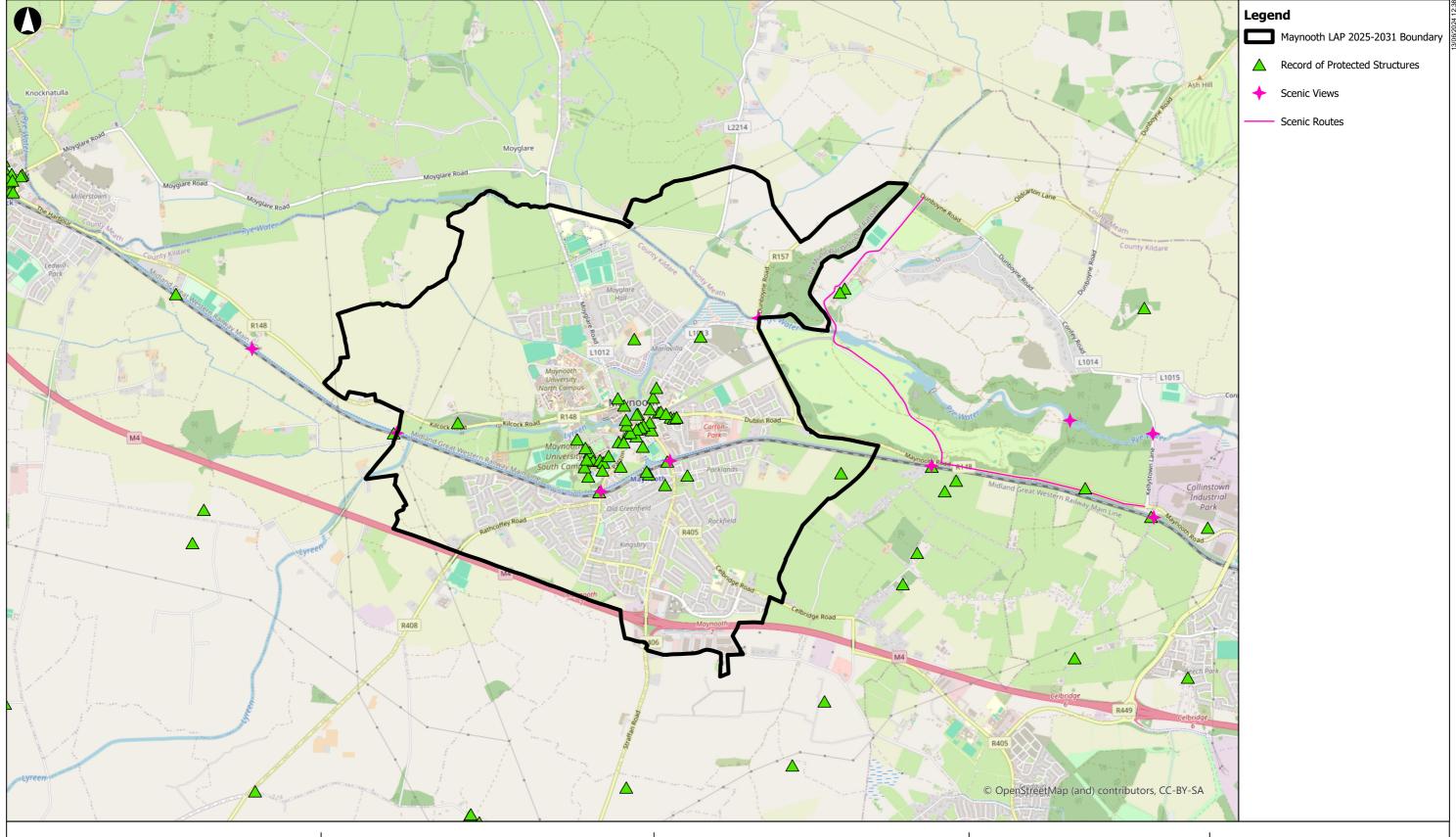
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CORINE Landcover

Scale at A3 1:30,000 13/06/2024 Fig A18 Arup Job No 278388-00









Ireland

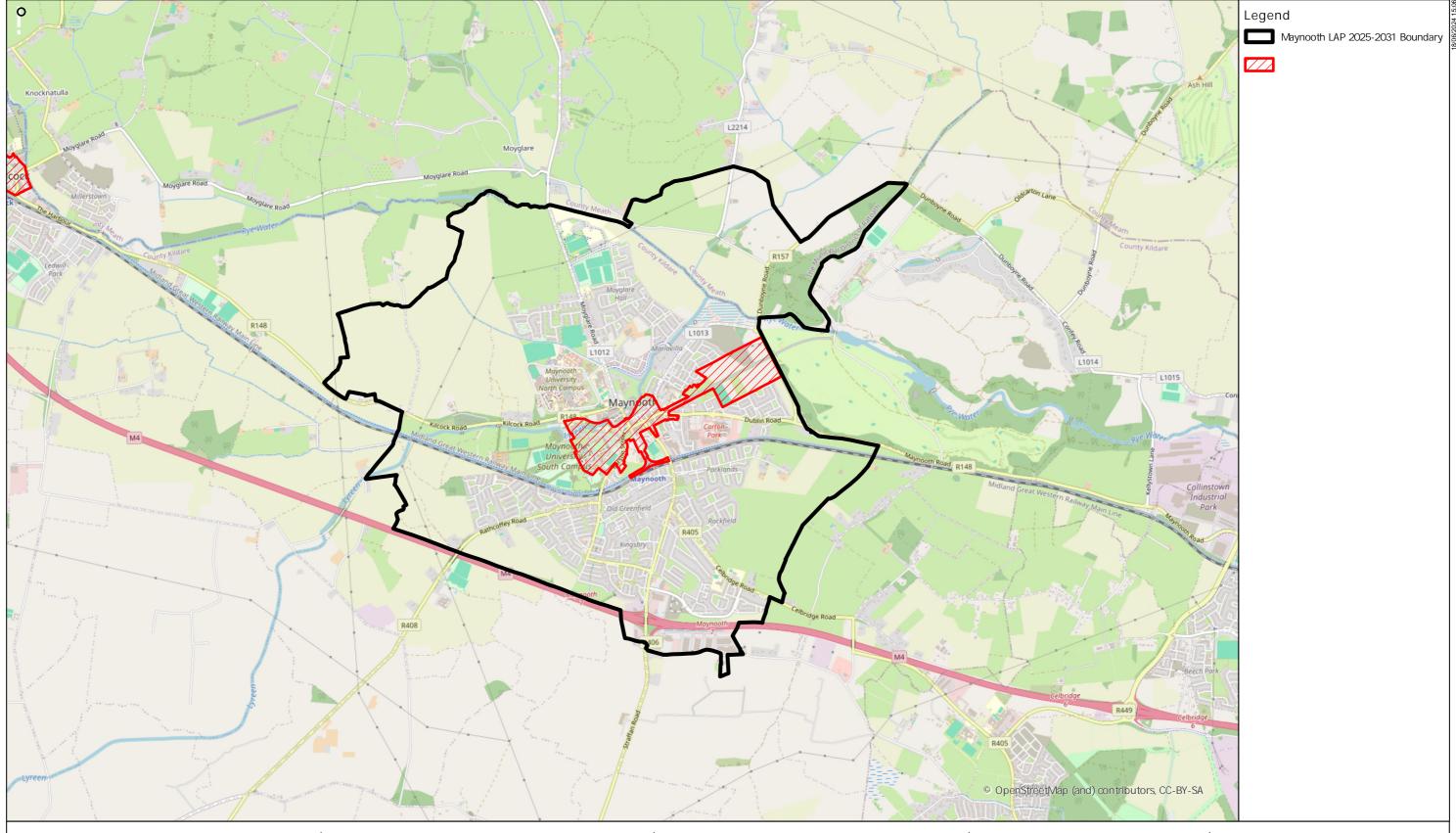
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Protected Views and Prospects

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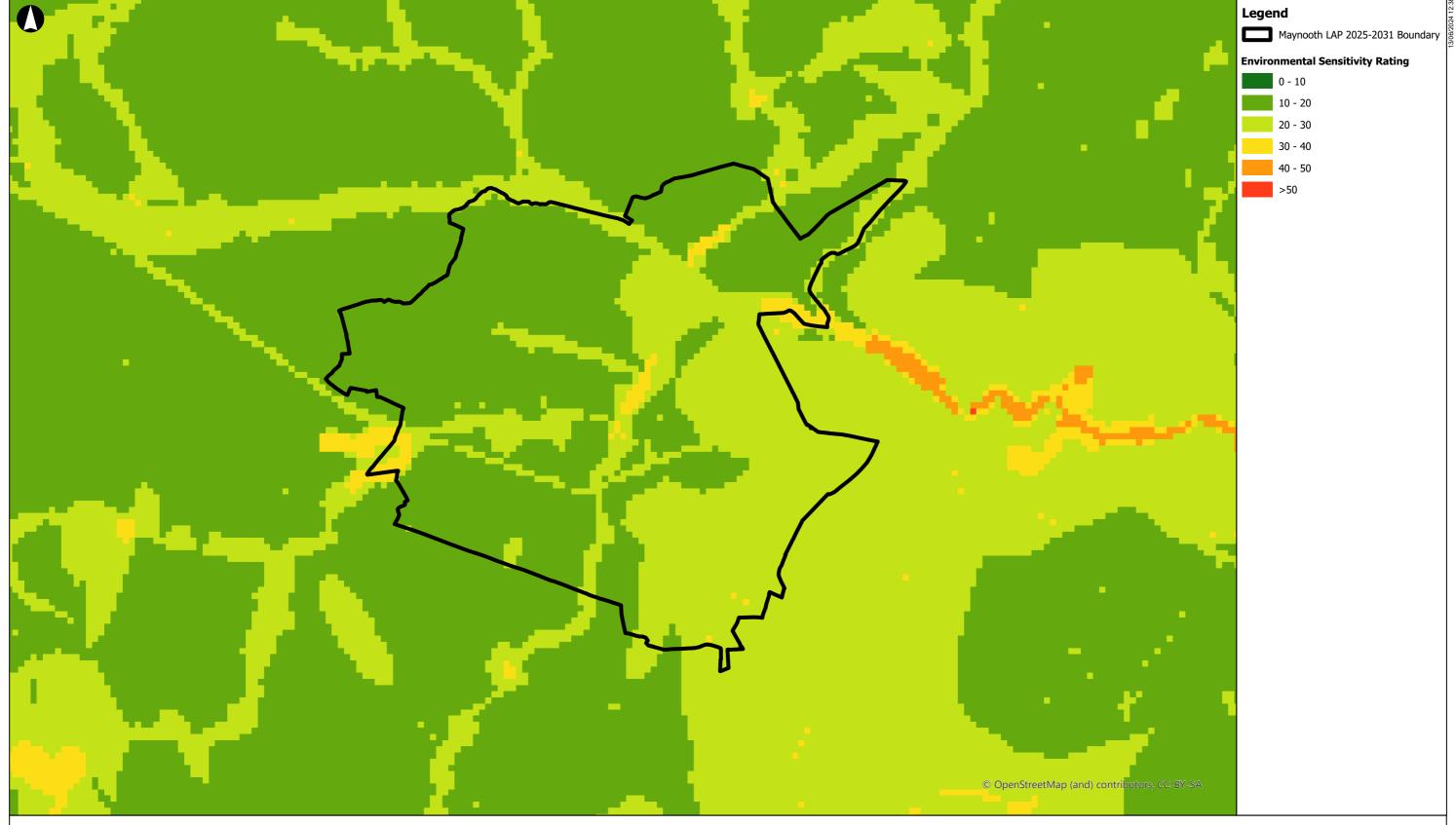
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Architectural Conservation Areas

Scale at A3	
1:30,000	
Date 18/06/2024	
Figure Number Fig A20	
Arup Job No 278388-00	Rev







Rev	Date	Ву	Chkd	Appd
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Environmental Sensitivity Map

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