

**Kildare County Council**

# Strategic Environmental Assessment of the Draft Kildare Town Local Area Plan 2023-2029

SEA Environmental Report

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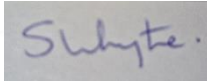
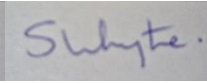

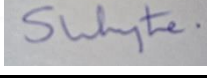
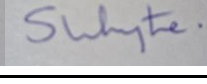
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## Contents

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<b>Non-Technical Summary</b>	<b>1</b>
<b>1. Introduction</b>	<b>9</b>
1.1 Background	9
1.2 SEA Process and Legislative Context	9
<b>2. Draft Kildare Town LAP 2023–2029</b>	<b>11</b>
2.1 Introduction	11
2.2 Background to the draft Kildare Town LAP 2023–2029	12
2.3 Policies of the draft Local Area Plan	13
2.4 Extent of Plan Area	13
<b>3. Relationship with Other Relevant Plans and Programmes</b>	<b>14</b>
3.1 Introduction	14
3.2 Plan Hierarchy	14
3.3 Interaction with Other Relevant Plans and Programmes	15
<b>4. SEA Methodology</b>	<b>17</b>
4.1 Introduction	17
4.2 Screening	18
4.3 Scoping	18
4.4 Baseline Data	32
4.5 Consideration of Alternatives	32
4.6 SEA Sensitivity Mapping	32
4.7 Environmental Assessment of the draft Plan	32
4.8 SEA Statement	32
4.9 Consultations	33
4.10 Technical Difficulties Encountered	33
<b>5. Current State of the Environment</b>	<b>33</b>
5.1 Introduction	33
5.2 Population and Human Health	34
5.3 Biodiversity including Flora and Fauna	36
5.4 Land and Soils	44
5.5 Water Resources	44
5.6 Air, Noise and Climate	46
5.7 Archaeology, Architectural and Cultural Heritage	50
5.8 Landscape and Visual	52
5.9 Material Assets	53
<b>6. SEA Objectives, Targets and Indicators</b>	<b>56</b>
6.1 Introduction	56
6.2 Objectives and Targets	57
6.3 SEA Indicators	57
<b>7. Alternatives Considered</b>	<b>65</b>
7.1 Introduction	65

7.2	Identification of Reasonable Alternatives	65
7.3	Assessment of Alternatives	68
7.4	Alternatives Assessment	71
<b>8.</b>	<b>Assessment of Significant Effects</b>	<b>72</b>
8.1	Introduction	72
8.2	Assessment of Alternatives	72
8.3	Principal Environmental Effects	72
8.4	Summary of Potential Environmental Effects	160
8.5	Interactive and Cumulative Effects	162
<b>9.</b>	<b>Mitigation Measures and Monitoring</b>	<b>166</b>
9.1	Mitigation	166
9.2	Monitoring	176

## Tables

Table 3.1	Relevant Plans and Programmes based on environmental aspect	15
Table 4.1	Scoping Responses	19
Table 4.2	Significance Ratings	32
Table 5.1	Excerpt from Table 2.8 of Chapter 2 Kildare County Development Plan 2023 – 2029 relating to Kildare Town	34
Table 5.2	SACs and SPAs in proximity to Kildare Town Source: (NPWS, 2022)	41
Table 5.3	NHAs and pNHAs in proximity to Kildare Town Source:	41
Table 5.4	National Parks and Wildlife Service’s Protected Site Synopses Source:	42
Table 5.5	Air Quality Assessment Zone D Concentrations 2021 compared to Air Quality Standards	47
Table 5.6	Major Roads in Kildare Town which qualify for Noise Mapping	48
Table 5.7	Sensitivity of Landscape Character Areas that Kildare Town covers and surrounds Source:	52
Table 6.1	Strategic Environmental Objectives and Targets for the draft LAP	58
Table 7.1	Alternatives Assessment	71
Table 8.1	Strategic Environmental Assessment – Policies and Objectives of the LAP	73
Table 8.2	Land-Use Zoning Assessment	152
Table 8.3	Interactive Effects	162
Table 8.4	Potential cumulative effects of the draft LAP and relevant legislation, plans and programmes	164
Table 9.1	Mitigation Measures	167
Table 9.2	Proposed monitoring for the draft LAP	177

## Figures

Figure 2.1	Kildare Town circled in red - not to scale Source: (Open Street Maps, 2022)	14
Figure 3.1	Hierarchy of the Planning Process in Ireland Source:	15
Figure 4.1	Key Stages of the SEA Process	18
Figure 5.1	River Water Quality for Kildare County Council area for the 2017-2020 period Source:	45

## Appendices

Appendix A  
Combined Figures

A-1  
A-1

# Non-Technical Summary

## Introduction

This Non-Technical Summary (NTS) has been prepared to support the Strategic Environmental Assessment (SEA) of the draft Kildare Town Local Area Plan (LAP) (referred to hereafter as ‘the draft Kildare Town LAP’ and ‘draft Plan’), established by Kildare County Council (KCC) for the period 2023-2029. This document has been prepared in accordance with relevant EU and national legislation to summarise, in non-technical language, the Environmental Report for the SEA of the draft Plan. 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;
- Regional Spatial and Economic Strategy (RSES) for the Eastern and Midlands Region;
- Kildare County Development Plan 2023-2029.

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 LAP.

## Draft Kildare town LAP 2023 – 2029

The draft Plan will provide the main public statement of planning policies and objectives for Kildare Town for the duration of the draft Plan (2023-2029) and will replace the existing Kildare Town Local Area Plan 2012-2018.

The policies and objectives are critical in determining the appropriate location and form of different types of development in the study area, as the Local Area Plan is the primary statutory land use policy framework against which planning applications are assessed.

The objectives of draft LAP will also be used by KCC to guide their activities and to indicate priority areas for action and investment by the Council such as focusing on attracting employment into the district or enhancing the district as a centre for tourism. The Revised LAP will be a key document for setting out a vision for how Kildare Town should develop over the years 2020-2026 and beyond.

## 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.

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 Plan and is cognisant of the pressures and interrelationships between environmental topics within the Plan 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:

- Biodiversity;
- Population and Human Health;
- 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 Local Area Plan and, as such, the general state of the environment in the local area of Kildare Town, County Kildare was considered in order to inform the draft Plan, any updates to the same over its lifetime, as well as this assessment. In doing so, the recently published State of the Environment Report (EPA, 2020) was 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, Geological Survey of Ireland's Geological Heritage of Kildare Report, the Environmental Protection Agency's Water Quality in Ireland Report, the Kildare County Development Plan 2023-2029 and the draft Kildare Town Transport Strategy.

According to Census 2016 data, the population of Kildare Town in 2016 was 8,634 over an area of 3.105 km<sup>2</sup>. This represents an annual population change of 1.2% from 2011 to 2016 (CSO, 2022)<sup>1</sup>. Census 2022 indicates that the population of the Electoral Division in which Kildare Town is located grew by approx. 17% during the intercensal period from 2016 to 2022. It is estimated that the population of Kildare Town is approx. 10,161 at Census 2022 (as per Table 3.3 of the draft Plan). According to 2016 Census Data, 1.7 – 2.3% of Kildare Town has identified themselves as having Bad or Very Bad health. The number of individuals who stated that their health either bad or very bad in 2016 was 191 (CSO, 2016)<sup>2</sup>.

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. Kildare Town is located within the commuter belt that serves the greater Dublin area and like many towns in County Kildare, has seen an increase in residential development in recent years. Nonetheless, like many County Kildare towns, the outer fringes of Kildare Town are dominated by agricultural pastureland, bounded by treelines and hedgerows.

Improved agricultural grassland is the most dominant habitat in Kildare Town reflecting the large tracts of agricultural pastureland associated with the area. Areas of biodiversity value in Kildare Town include the array of semi-natural habitats associated with the Curragh proposed Natural Heritage Area (Site code: 000392), pockets of highly modified woodland (WD), a pocket of semi-natural woodland (WN) at Silliothill and wet grassland (GS4) associated with the margins of the Tully River, Japanese Gardens and National Stud. Further habitats and features which are of particular importance for biodiversity throughout Kildare Town includes woodlands, hedgerows, field boundaries, wet grasslands, urban parks and gardens.

Kildare Town is also home to several rare, protected and/or threatened plants and animals. Plants that are legally protected under the Flora Protection Order within the Wildlife (Amendment) Act 2000 include, Opposite leaved Pondweed, Basil Thyme or Hairy St. John's-wort. Various animals are also afforded protection within the Wildlife Acts including, all native mammals.

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<sup>1</sup> CSO (2022) Population Statistics. Available at: [Home - CSO - Central Statistics Office](#)

<sup>2</sup> CSO (2022) Maps ArcGIS. Available at: [Map 4.2: General health bad and very bad by electoral division, 2016 \(arcgis.com\)](#)

Species listed on Annex II of the European Union Habitats Directive include, Otters, White-clawed Crayfish, Marsh Fritillary Butterfly and Annex I of the EU Birds Directive include, Golden Plover, Kingfisher are also protected and found in Kildare Town.

According to the report ‘The Geological Heritage of Kildare’ (Geological Survey of Ireland (GSI), 2005), the predominant rock type in County Kildare is sedimentary rock, limestone of Carboniferous age in particular<sup>3</sup>. The soils underlying the study area are identified by the Geological Survey of Ireland as being predominantly Made Ground in the urban centre. Overall, the soil in this area is well suited for agriculture and forestry<sup>4</sup>.

Kildare Town is situated in Water Framework Directive (WFD) Catchment 14, namely the Barrow (EPA, 2022)<sup>5</sup>. There are no rivers situated within Kildare Town LAP but the Tully River, a tributary of the River Barrow is situated to the south of the LAP boundary. An area of concern that was highlighted in the EPA Report<sup>6</sup> for the River Barrow overall, was its nitrate concentrations. Ground Waterbody WFD Status from 2013-2018 for the area of Kildare Town has been assessed by the EPA as overall ‘Good Quality’. No other waterbodies can be found in the LAP area of Kildare Town<sup>7</sup>.

Kildare Town is located in Air Quality Zone D. All pollutants recorded for Zone D are well within compliance with Air Quality Standards. However, no information has been provided for Zone D in relation to Benzene in the latest EPA Air Quality in Ireland Report.

The third Noise Action Plan (2019-2023) prepared for County Kildare concludes that there are an estimated 745 people in Kildare above the  $L_{den}$  threshold for noise from road traffic sources, and an estimated 5,185 people above the  $L_{night}$  threshold from road traffic sources.

The existing climate for Kildare Town 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, average annual temperature is about 9°C and the mean annual wind speed is at approximately 4 m/sec in the east midlands (Met Eireann, 2022)<sup>8</sup>.

According to the Record of Monuments and Places (RMP) database, there are approximately 43 Recorded Monuments within the Plan area (National Monuments Service, 1995)<sup>9</sup>. Kildare Town also 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 RPS, there are 39 protected structures in Kildare Town, listed in Table 8.1 of the draft Plan.

The landscape of County Kildare comprises a central plain bounded to the east by the Kildare uplands, which lie at the foot-hills 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 and 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.

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<sup>3</sup> Geological Survey of Ireland (GSI) (2005) The Geological Heritage of Kildare. Available at: [Geology of Kildare - Kildare County Council \(kildarecoco.ie\)](http://kildarecoco.ie)

<sup>4</sup> Geological Survey of Ireland (GSI) (2005) The Geological Heritage of Kildare. Available at: [Geology of Kildare - Kildare County Council \(kildarecoco.ie\)](http://kildarecoco.ie)

<sup>5</sup> EPA (2022) EPA water catchments interactive map. Available at: [EPA\\_Water\\_Quality\\_2020\\_indicators-report.pdf](#)

<sup>6</sup> EPA (2020) Water Quality in Ireland 2020. Available at: [EPA\\_Water\\_Quality\\_2020\\_indicators-report.pdf](#)

<sup>7</sup> EPA (2022) EPA water catchments interactive map. Available at: [EPA\\_Water\\_Quality\\_2020\\_indicators-report.pdf](#)

<sup>8</sup> Met Eireann (2022) Climate of Ireland. Available at: [Climate of Ireland - Met Éireann - The Irish Meteorological Service](#)

<sup>9</sup> National Monuments Service (1995) Record of Monuments and Places – Archaeology Kildare. Available at: [Archaeology-RMP-Kildare-Manual-\(1996\)-0020.pdf](#)



Irish Water is responsible for all aspects of public water services planning, delivery and operation in Kildare Town. The provision of an adequate supply of water and wastewater treatment facilities is critical to facilitate and sustain the growth of Kildare Town. Kildare Town's wastewater is served within Kildare Town Wastewater Treatment Plant (WWTP) which is located South of the M7 Kildare Bypass.

Over recent decades Kildare Town has seen steady growth in its population, the population has doubled since the early 1990s; leading to the spread of housing estates across the urban area, particularly surrounding the town centre. This rapid expansion 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, AECOM in collaboration with KCC have developed the Kildare Town Transport Strategy (KTTS) to support the preparation of the Kildare Town LAP and improve movement and transport within Kildare Town.

## Consideration of Alternatives

Alternative development scenarios were considered in the preparation of the draft LAP. The draft Plan 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 LAP is positioned within an overall plan hierarchy under the National Planning Framework (NPF), Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region and the Kildare County Development Plan 2023-2029, which pre-determined the scope of the strategic alternatives.

The Core Strategy of the Kildare County Development Plan 2023-2029 allocates 430 units for the period 2023-2029 for Kildare Town. The Kildare County Development Plan 2017-2023 indicated that the Kildare Town Local Area Plan 2012-2018 had a capacity surplus of 2,027 units at that time, which was required to be addressed through the relevant local area plan. Thus, the development of alternative scenarios had regard to the historic level of over-zoning and also the high level of extant planning permissions that will be delivered during the lifetime of the draft Plan.

KCC recognised that alternatives must be realistic, reasonable, viable and implementable. In the context of creating alternatives, the following parameters were of note for Kildare Town:

- Kildare Town is designated as a Self-Sustaining Growth Town in the CDP;
- The County Core Strategy allocation for the settlement (as adapted to 2029 and to include 25% additional housing provision) is 628 residential units over the lifetime of the draft Plan;
- There are currently 985 residential units with extant planning permissions within the settlement, and a further 551 residential units at pre-planning or planning application consideration stage;
- For Kildare Town to reach a job ratio of 0.70, an additional 1,127 jobs are required during the lifetime of the draft Plan;
- There are deficiencies in public open space provision and childcare for the existing population;
- To cater for the planned population growth, additional school places and employment opportunities are required in addition to open space and childcare;
- Surface water management is a significant issue in Kildare Town; and
- The Curragh Natural Heritage Area (pNHA) (site code 000392) immediately adjoins the Plan area to the east. This is designated as a High Sensitivity Landscape in the CDP.

The preferred alternative for the Kildare town LAP from an environmental perspective is Scenario 3 - Delivery of extant residential permissions, town centre consolidation, protection of the Green Belt at the Curragh and a combination of sites that could potentially be delivered.

## Objectives, Targets, and Indicators

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

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

## Assessment of likely Significant Effects

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

As the policies included in the 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.

### Population and Human Health

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

It is proposed 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.

Policies and objectives relating to improvements to the public realm and accessibility of the town centre will also positively impact the population of Kildare town.

It is proposed to provide new residential development upon sites of extant permission, sites with active planning history and sites acceptable for development within the lifetime of the draft Plan, however a number of these sites are greenfield sites. Residential development will be provided predominantly in the extant permission sites, namely the Former Magee Barracks, along with one site outside of the town centre namely Grey Abbey and the Core Regeneration Area sites in the town centre. This will seek to ensure that the longer-term development of Kildare town is provided for. The promotion of enterprise and employment development in the south-western part of the town will also result in a positive impact on the population on Kildare town, through increased job opportunities.

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

### Biodiversity

The land use zonings and objectives of the 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 LAP 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 south-west of the Plan 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, the construction of Northern Link Street and associated one-way streets or the creation of a walking trail/greenway from Kildare Town to the Curragh, as part of the International Thoroughbred Trail.

Neutral impacts are predicted to arise due to the various green infrastructure objectives where the works are considered minor, 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.

### Land and Soils

The majority of potential impacts for Land and Soils are neutral as development will primarily be consolidated within existing zoned or developed lands.

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 south-west of the Plan area, as well as where new roads are proposed.

Uncertainties will occur where the precise nature and extent of proposed new development is unknown.

### Water Resources

The land use zonings and objectives of the Draft LAP will primarily result in a neutral impact on Water as development will largely take place with 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 land to the south-west of the Plan area. Similarly, potential negative effects on water are identified where large-scale infrastructure is proposed such as new road schemes, the construction of Northern Link Street and associated one-way streets or the creation of a walking trail/ greenway from Kildare Town to the Curragh, as part of the International Thoroughbred Trail.

A Strategic Flood Risk Assessment (SFRA) has been carried out in support of the 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 Study (SWS) was also prepared as a precursor to the SFRA. The aim of the SWS is to find a municipal-level, multi-site nature-based solution(s) to surface water management for Kildare Town.

### 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 Plan also promotes sustainable travel modes while making provisions for improved pedestrian and cycle routes in, and around the town centre. Such measures will have a positive effect on air, noise and climate.

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

Uncertainties will 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, but also by means of the encouragement of private vehicle use.

### Archaeology, Architectural and Cultural Heritage

The land use zonings and objectives of the Draft LAP will primarily result in neutral impacts on Heritage as development will largely take place with 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 - 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 would require planning permission, such as changes to the original roofing material, windows, boundary walls etc. 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 will occur where the precise nature and extent of proposed new development is unknown and where the discovery of heritage features cannot be ruled out.

The draft Plan does however place a significant emphasis on the retention, protection and enhancement of existing heritage features within the LAP area.

There is the potential for negative impacts to occur where greenfield lands have been zoned for development - such as the land at south-west of the Plan area, as this has the potential to impact on archaeology.

### Landscape and Visual

The majority of potential impacts for Landscape and Visual are predominantly neutral.

A number of positive impacts on the townscape of Kildare town will likely result from the range of regeneration and urban realm proposals included in the draft Plan.

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

### Material Assets

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

The proposed consolidation of development in the town centre of Kildare town has however the potential to result in a negative impact on material assets. A 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. However, the recent upgrades to Kildare town's WWTP and sewer network should accommodate all development proposed under the Plan.

### Mitigation Measures

This Environmental Report has highlighted some potential negative environmental impacts that may arise from the implementation of the LAP in relation to new policies, 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 LAP.

It is envisaged that all planning applications for new developments in the LAP 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 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 LAP.

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

KCC, as the planning authority, is 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) is currently preparing a draft Local Area Plan (LAP) for Kildare Town for the period 2023 – 2029. Arup has been appointed by KCC to allow the Strategic Environmental Assessment (SEA) to be undertaken on the draft Plan. All necessary stages of Appropriate Assessment (AA) will also be undertaken on the draft Plan. This process will be carried out in parallel with the SEA process and will feed into the alternatives considered as part of the SEA, as required for KCC. This draft Plan will supersede the current plan which covers the period 2012 – 2018. The new draft Plan will set out a vision for the future planning and sustainable development of Kildare Town to 2029 and beyond.

## 1.1 Background

KCC, as the competent authority, is currently preparing the Kildare Town LAP 2023-2029 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 LAP must be consistent with the core strategy and objectives of the Kildare County Development Plan 2023-2029, aligning with national (the National Planning Framework 2018) and regional (the Regional Spatial and Economic Strategy for the Eastern and Midland Region 2019-2031) planning policy. The draft LAP is also informed by Ministerial Guidelines issued pursuant to Section 28 of the Act together with EU requirements regarding Strategic Environmental Assessment (SEA), Appropriate Assessment (AA), and Strategic Flood Risk Assessment (SFRA). The period of the draft Plan shall be taken as being six years from the date it is made unless it is extended under Section 19(1)(d) of the Planning and Development Act 2000 (as amended) or replaced by any subsequent plan under future legislation. The LAP will also include information on the likely significant effects on the environment of implementing the draft Plan.

The draft LAP will provide the main public statement of planning policies and objectives for Kildare Town for the Plan duration (2023-2029). The policies and objectives are critical in determining the appropriate location and form of different types of development as the LAP is the primary statutory land use policy framework against which planning applications are assessed. The objectives of the LAP are also used by KCC to guide their activities and to indicate priority areas for action and investment by the Council such as focusing on attracting employment into the town or enhancing the town as a centre for tourism. The draft Kildare Town LAP will be a key document which will guide the sustainable development of the town for the period 2023 – 2029.

## 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 Strategic Environmental Assessment 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 (Strategic Environmental Assessment) 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 Environmental Report (this report);
- Consultation on the Plan or Programme and associated Environmental Report;
- Evaluation of the submissions and observations made on the Plan or Programme and Environmental Report; 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 Plan 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 Plan area arising during implementation of the Plan may require an Environmental Impact Assessment, should it be so required.

### 1.2.3 SEA Guidance

The SEA methodology for the draft 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);
- *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* (EPA, 2013);
- *(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
- *Guidance on SEA Statements and Monitoring* (EPA, 2020).

## 2. Draft Kildare Town LAP 2023–2029

### 2.1 Introduction

The draft Kildare Town Local Area Plan (LAP) 2023–2029 is being prepared in accordance with the requirements and provisions of the Planning and Development Act 2000 (as amended). It will set out an overall strategy for the proper planning and sustainable development of Kildare Town in the context of the Kildare County Development Plan 2023–2029. 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 Strategic Environmental Assessment, Appropriate Assessment and Strategic Flood Risk Assessment (SFRA).

The draft Kildare Town LAP will provide the main public statement of planning policies and objectives for Kildare Town for the Plan duration (2023-2029). The policies and objectives are critical in determining the appropriate location and form of different types of development as the LAP is the primary statutory land use policy framework against which planning applications are assessed.



The objectives of the LAP are also used by KCC to guide their activities and to indicate priority areas for action and investment by the Council such as the sustainable development of Kildare town and focusing on attracting employment into the town and or enhancing the town as a centre for tourism.

The draft Kildare Town LAP will be a key document for setting out a vision for how Kildare Town should develop over the years 2023-2029.

## **2.2 Background to the draft Kildare Town LAP 2023–2029**

The existing land-use plan for Kildare Town is the Kildare Town Local Area Plan 2012-2018. The pre-draft Public Consultation Issues Paper for the Kildare Town Local Area Plan 2019 - 2025 went on display from 21st August to the 17th of September 2018. The Kildare Town Local Area Plan 2019 -2025 was then paused due to adoption of the Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Regional Assembly (EMRA) and the subsequent Variation of the County Development Plan 2017 -2023.

KCC is now preparing the Kildare Town LAP 2023-2029 which will consider all submissions made on the pre-draft consultation in 2018 including all recommendations from the NTA and TII. The Kildare Town LAP 2023-2029 is being prepared in full compliance with the RSES for the Eastern and Midlands Region.

In addition to Strategic Environmental Assessment of the draft LAP, a Habitats Directive Assessment, Strategic Flood Risk Assessment and Surface Water Study, Transport Strategy, Social Infrastructure Audit, Surface Water Study, Kildare Architectural Conservation Area Statement of Character and a Settlement Capacity Audit will inform the Kildare Town LAP 2023-2029.

The draft Kildare Town LAP will be a key document for setting out a vision for the sustainable development of Kildare Town over the years 2023-2029. The policies and objectives contained in the LAP must be consistent with the core strategy and objectives of the Kildare County Development Plan 2023-2029, aligning with national (the National Planning Framework) and regional (Regional Spatial and Economic Strategies) planning policy. The final Environmental Report will also include information on the likely significant effects on the environment of implementing the draft Plan.

The National Planning Framework (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 National Planning Framework (‘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 Regional Spatial and Economic Strategies and County Development Plans (CDP) and provided the Transitional Regional and County Population Projections to 2023 for each county.

The NPF is implemented at a regional level through the Regional Spatial and Economic Strategies (RSESs), at county level through County Development Plans 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 (Eastern and Midland Regional Assembly, 2022)<sup>10</sup> also proves for a Settlement hierarchy of the Key Towns, Self-Sustaining Growth Towns, Towns, Villages and Rural Areas. The settlement hierarchy in respect of Kildare County, as contained in the County Development Plan, includes Kildare Town as a self-sustaining growth town

It is a statutory requirement of the Planning and Development Act 2000 (as amended) that every Planning Authority prepares a County Development Plan. County Development Plans act as the main public statement of planning policies for local communities, the CDPs set out the land use, amenity and development objectives and policies of the planning authority, over a six-year period. CDPs consist of a written statement of objectives and include maps that give a graphic representation of how a city or county will develop and improve in a sustainable manner over the six-year period. The core strategy of the Plan is to articulate a medium to longer term quantitatively based strategy for the spatial development of the county and which shows that the plan is consistent with the National (NPF) and Regional (RSES) policies. The central focus on the Core Strategy is the allocation of residential growth across the Settlement Hierarchy, such as for Kildare Town.

The draft LAP provides more detailed planning policies for the area of Kildare Town, where significant development and change is anticipated. The Kildare Town LAP must be compatible with and underpin national and regional guidance documents and the core strategy and policies of the Kildare County Development Plan. The draft LAP is valid for six years from the date it is adopted by the planning authority.

### 2.3 Policies of the draft Local Area Plan

In accordance with the Planning and Development Act 2000 (as amended), the draft Kildare Town Local Area Plan 2023-2029 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 LAP must be consistent with the objectives, Core Strategy and Settlement Strategy of the Kildare County Development Plan 2023-2029.

In order to develop in a sustainable manner, Kildare Town, as a self-sustaining growth town, must accommodate the appropriate levels of residential, economic, recreational and community development in tandem with necessary improvements in physical infrastructure and public transport **Error! Bookmark not defined.**

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

Kildare Town is identified as being a ‘Self Sustaining Growth Town’ in the Kildare County Development Plan 2023-2029 which are defined as a town with “a moderate level of jobs and services, such settlements include sub-county market towns and commuter towns with good transport links and capacity for continued commensurate growth to become more self-sustaining”.

Finally, the Kildare Town LAP 2023-2029 is being prepared in full compliance with the National Planning Framework.

### 2.4 Extent of Plan Area

The location of Kildare Town is illustrated in Figure 2.1. Refer to Figure A1 in Error! Reference source not found. for the draft LAP boundary map. The boundary map may be subject to change during the preparation of the draft Plan.

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<sup>10</sup> Eastern and Midland Regional Assembly (2022) Regional Spatial and Economic Strategy for the Eastern and Midland Region. Available at: [Eastern & Midland Regional Assembly Final RSES - Eastern & Midland Regional Assembly \(emra.ie\)](#)

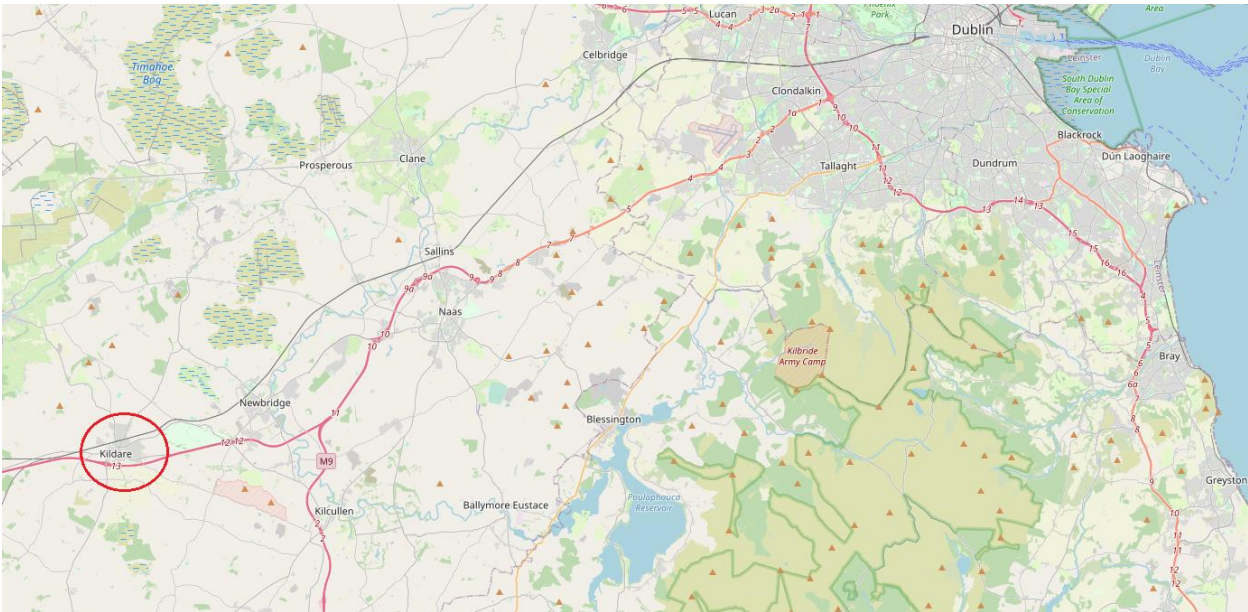


Figure 2.1 Kildare Town circled in red - not to scale Source: (Open Street Maps, 2022)<sup>11</sup>

## 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 Strategic Environmental Assessment this section should set out the LAP in its wider planning context. It should explain what other plans and environmental objectives affect the LAP, and what plans and projects are affected by the draft LAP.

The wide range of plans, policies and programmes which are considered to be of relevance to the draft 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)<sup>12</sup> indicates where the draft Kildare Town LAP falls within that hierarchy.

<sup>11</sup> Open Street Maps (2022). Available at: [Kildare town | OpenStreetMap](https://www.openstreetmap.org/)

<sup>12</sup> DoECLG (2022) Development Plans - Guidelines for Planning Authorities. Available at: [www.gov.ie - Development Plans - Guidelines for Planning Authorities \(www.gov.ie\)](https://www.gov.ie/en/publications-and-resources/publication/development-plans-guidelines-for-planning-authorities/)

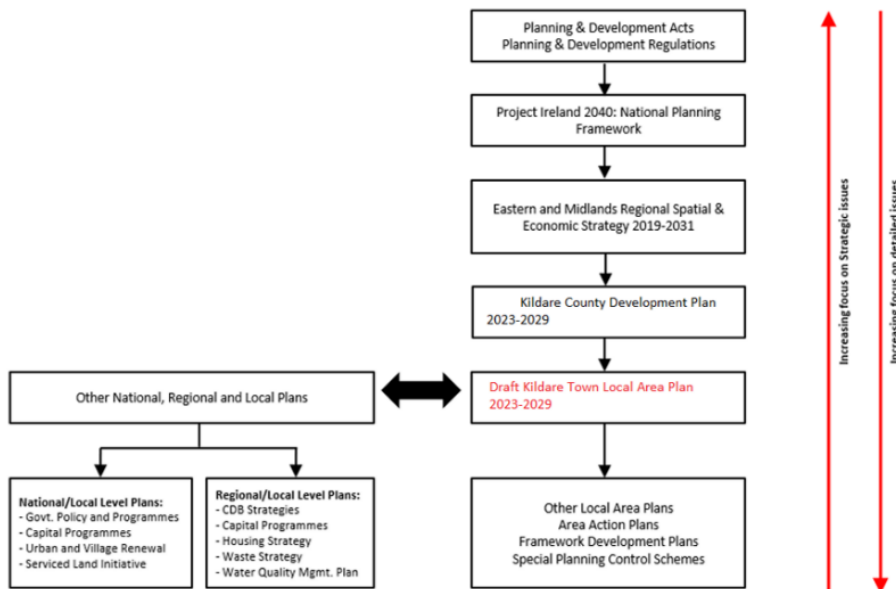


Figure 3.1 Hierarchy of the Planning Process in Ireland Source: <sup>12</sup>

### 3.3 Interaction with Other Relevant Plans and Programmes

As part of the SEA process the context of the draft 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 Plan with the environmental protection objectives and standards included within these other plans and programmes be considered.

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

Table 3.1 Relevant Plans and Programmes based on environmental aspect

Level	Plans and Programmes
International/EU Level	Climate Change Programme (ECCP II) Gothenburg Strategy EU Green Infrastructure Strategy EU 2030 Framework for Climate and Energy European 2020 Strategy for Growth EU (2030) Biodiversity Strategy 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 in Urban Areas (Cities, Towns and Villages) (2009) Guidelines for Planning Authorities – Retail Planning (2012) Local Area Plans - Guidelines for Planning Authorities (2013)

Level	Plans and Programmes
	<p>Guidelines for Planning Authorities – Spatial Planning and National Roads (2012)</p> <p>Town Centre First, A Policy Approach for Irish Towns (2022)</p> <p>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)</p> <p>Our Sustainable Future – A Framework for Sustainable Development for Ireland (2012)</p> <p>Our Sustainable Future Progress Report (2015)</p> <p>National Biodiversity Action Plan 2017-2021</p> <p>Draft 4<sup>th</sup> National Biodiversity Action Plan 2023-2027</p> <p>Appropriate Assessment of Plans and Projects in Ireland. Guidelines for Planning Authorities (revised 2010)</p> <p>Threat Response Plans</p> <p>Species Action Plans (SAPs)</p> <p>Architectural Heritage Protection - Guidelines for Planning Authorities (2004)</p> <p>Places for People, National Policy on Architecture (2022)</p> <p>National Landscape Strategy for Ireland 2015-2025</p> <p>Heritage Ireland 2030</p> <p>National Policy on Town Defences (2008)</p> <p>River Basin Management Plan for Ireland 2018 - 2021</p> <p>Climate Action Plan 2023</p> <p>National Development Plan 2018 - 2027 (2018)</p> <p>Ireland 2040 - Our Plan, the National Planning Framework and the National Development Plan (2018-2027)</p> <p>National Implementation Plan 2018 - 2020 (2018)</p> <p>The Energy White Paper 2015-2030</p> <p>Programme for Government – Our Share Future (2020)</p> <p>EPA Land Use Review - The Land Use Evidence Review</p> <p>Planning, Land Use and Transport Outlook 2040 [in preparation]</p> <p>Draft Clean Air Strategy for Ireland</p> <p>National Water Resources Plan (NWRP)</p> <p>A Waste Action Plan for a Circular Economy - Ireland’s National Waste Policy 2020 – 2025</p> <p>National Adaptation Framework (NAF) 2018 and associated regional, local and sectoral adaptation plans</p> <p>National Energy and Climate Plan (NECP) 2021 – 2030</p> <p>National Air Pollution Control Programme (DCCAE, 2019)</p> <p>Irish Water’s Water Services Strategic Plan 2015 and associated Proposed Capital Investment Plan (2014-2016)</p> <p>Our Rural Future: Rural Development Policy 2021-2025</p> <p>Realising our Rural Potential: The Action Plan for Rural Development</p> <p>National Peatlands Strategy (2015-2025)</p> <p>Flood Risk Management Plans arising from National Catchment Flood Risk Assessment and Management Programme</p> <p>Draft Renewable Electricity Development Framework (DCCAE) 2016</p> <p>Tourism Policy Statement: People, Place and Policy – Growing Tourism to 2025</p> <p>Fáilte Ireland Tourism plans, strategies</p> <p>All Ireland Pollinator Plan 2021-2025</p> <p>Prioritised Action Framework 2021-2027 (NPWS)</p> <p>Management Plans for Natura 2000 sites</p>

Level	Plans and Programmes
Regional Level	Eastern and Midland Regional Spatial and Economic Strategy 2019-2031 Retail Strategy for the Greater Dublin Area 2008-2016 Draft Transport Strategy for the Greater Dublin Area 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 County Kildare Heritage Plan 2019-2025 County Kildare Biodiversity Action Plan 2021-2025 Other Local Area Plans

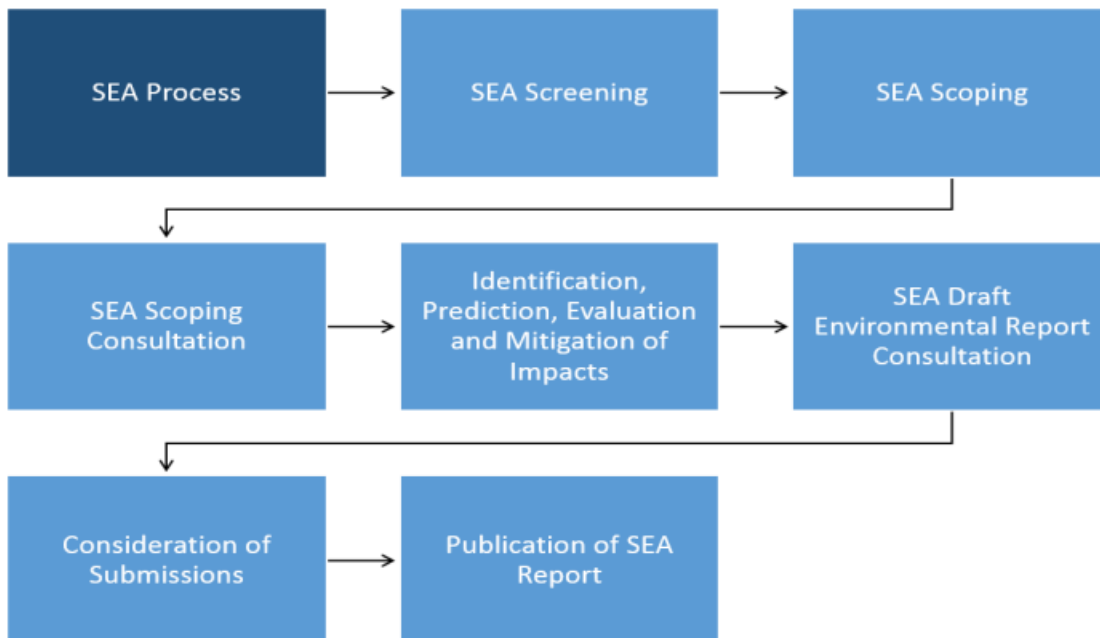
## 4. SEA Methodology

### 4.1 Introduction

This section highlights how the SEA has been undertaken for the draft LAP. The SEA methodology is based on legislative requirements and relevant Environmental Protection Agency (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 LAP (KCC), the SEA Environmental Report and the Appropriate Assessment (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 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 plan development process.

The screening determination for the draft LAP was determined to be mandatory as the draft 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 LAP falls within the requirements of the SEA Directive in that the population of the LAP 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 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 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 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 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 LAP.

A Scoping Report was prepared in September 2022 in relation to the draft 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 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. Meath County Council (MCC) also responded during the Scoping consultation period, however, stated they had no comment to make at this stage of the plan making process.

**Table 4.1 Scoping Responses**

Consultee/ Stakeholder	SEA Scoping Response	SEA Actions
<p>Environmental Protection Agency (EPA)</p>	<p>For land use plans at county and local level, we provide a ‘self-service approach’ via the attached 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.</p>	<p>The guidance document ‘SEA of Local Authority Land Use Plans – EPA Recommendations and Resources’ has been reviewed and utilised throughout the SEA process.</p>
	<p>Available Guidance and Resources from the EPA 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))</p> <p>Access to these guidance notes and other resources is available at: <a href="https://www.epa.ie/our-services/monitoring--assessment/assessment/strategic-environmental-assessment/sea-topic-and-sector-specific-guidance/">https://www.epa.ie/our-services/monitoring--assessment/assessment/strategic-environmental-assessment/sea-topic-and-sector-specific-guidance/</a></p>	<p>All Guidance and Resources included in this submission have been reviewed and are welcomed. The guidance and resources namely ‘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))’ have been reviewed and utilised throughout the SEA process.</p>
	<p><u>Environmental Sensitivity Mapping (ESM) Webtool</u></p> <p>The ESM Webtool is a new 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 land-use conflicts and help identify suitable development locations, while also protecting the environment. The ESM Webtool is available at <a href="http://www.enviromap.ie">www.enviromap.ie</a>.</p>	<p>Use of this webtool has been noted and reviewed as a useful support tool to assist the SEA process.</p>
	<p><u>EPA SEA WebGIS Tool</u></p> <p>The SEA WebGIS Tool has been updated recently and is now publicly available at <a href="https://gis.epa.ie/EPAMaps/SEA">https://gis.epa.ie/EPAMaps/SEA</a>. 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.</p>	<p>Use of this tool has been noted and reviewed as a useful support tool to assist the SEA process.</p>
	<p><u>EPA WFD Application</u></p> <p>Our WFD Application provides a single point of access to water quality and catchment data from the national WFD monitoring programme. The application is accessed through EDEN at <a href="https://wfd.edenireland.ie/">https://wfd.edenireland.ie/</a> and is available to public agencies. Publicly available data can be accessed via the <a href="http://catchments.ie">catchments.ie</a> website.</p>	<p>Use of this application has been noted and reviewed as a useful support tool to assist the SEA process.</p>
	<p><u>EPA AA GeoTool</u></p> <p>The AA GeoTool application has been developed in partnership with the NPWS. It allows users to select a location, specify a search area and gather available information for each European Site within the area. It is available at: <a href="https://gis.epa.ie/EPAMaps/AAGeoTool">https://gis.epa.ie/EPAMaps/AAGeoTool</a>.</p>	<p>Use of this tool has been noted and reviewed as a useful support tool to assist the SEA process.</p>



Consultee/ Stakeholder	SEA Scoping Response	SEA Actions
	<p><u>State of the Environment Report – Ireland’s Environment 2020</u></p> <p>In preparing the Plan and SEA, the recommendations, key issues and challenges described within the State of the Environment Report Ireland’s Environment – An Integrated Assessment 2020 (EPA, 2020) should be considered, as relevant and appropriate to the Plan. It should also be taken into account, in preparing the Plan.</p>	<p>The State of the Environment Report Ireland’s Environment – An Integrated Assessment 2020 (EPA, 2020) Report has been reviewed in full and relied on for the description of much of the baseline environment in both the SEA Scoping Report and the Environmental Report.</p>
	<p><u>Environmental Authorities</u></p> <p>Under the SEA Regulations, you should consult with:</p> <ul style="list-style-type: none"> <li>• Environmental Protection Agency;</li> <li>• Minister for Tourism, Culture, Arts, Gaeltacht, Sport and Media (formerly Minister for Culture, Heritage and the Gaeltacht (functions transferred from Minister for Environment, Heritage and Local Government/ Minister for Housing, Planning and Local Government to Minister for Culture, Heritage and the Gaeltacht by S.I. 192 of 2011);</li> <li>• Minister for Environment, Climate and Communications (formerly Minister of Communications, Climate Change and the Environment);</li> <li>• Minister for Agriculture, Food and the Marine; and</li> <li>• any adjoining planning authority whose area is contiguous to the area of a planning authority which prepared a draft plan, proposed variation or local area plan.</li> </ul>	<p>All of the aforementioned authorities/agencies have been consulted with and any comments received have been taken into account, as part of the making of the draft Plan and the SEA Environmental Report, in line with SEA Regulations.</p>
<p>Department of Housing, Local Government and Heritage (DHLGH)</p>	<p>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 (Appropriate Assessment). Department guidance on AA1 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.</p>	<p>This submission has been noted, the precautionary principal has been incorporated throughout the SEA and AA processes.</p> <p>An AA screening report was prepared for the draft LAP and the likely significant effects of the draft Plan on Natura 2000 sites have been screened.</p> <p>The AA Screening concluded:</p> <p><i>There are five European designated sites within the Zone of Influence (ZoI) of the draft Plan, namely Pollardstown Fen SAC, Mouds Bog SAC, Ballynafagh Lake SAC, River Barrow and River Nore SAC and Ballynafagh Bog SAC.</i></p> <p><i>Of these five European designated sites, there is only a potential impact pathway identified between the area covered by the draft Plan, and one site, namely the River Barrow and River Nore SAC. This is a hydrological connection via the Tully Stream and Armour Stream, along 13km of watercourse (including five confluences), to the Finnery River which is designated as part of the River Barrow &amp; River Nore SAC.</i></p> <p><i>The potential for Likely Significant Effect (LSE) of each individual objective/land-use zoning in the draft Plan on the integrity of the River Barrow &amp; River Nore SAC has been systematically considered in the AA Screening Report and it is recommended that all objectives can be screened out from AA.</i></p>

Consultee/ Stakeholder	SEA Scoping Response	SEA Actions
	<p>Kildare town is underlain by the Regionally Important Gravel Aquifer, the Curragh Aquifer. The aquifer provides baseflow for the major river catchments in Kildare, namely the Liffey, the Barrow and the Boyne. It has been described as of ‘high vulnerability’ by the Geological Survey Ireland (GSI). The Barrow forms part of the River Barrow and River Nore Special Area of Conservation (SAC) (Site Code 002162), while the River Boyne is part of the River Boyne and River Blackwater SAC (Site Code 002299) and the River Boyne and River Blackwater Special Protection Area (SPA) (Site Code 004232). The Liffey flows into Dublin Bay which contains North Dublin Bay SAC (Site Code 000206), South Dublin Bay SAC (Site Code 000210), South Dublin Bay and River Tolka Estuary SPA (Site Code 004024) and North Bull Island SPA (Site Code 004006).</p> <p>Appropriate Assessment screening must determine the Natura 2000 sites which are within the plan’s zone of influence based on connections with the Curragh Aquifer. The Curragh Aquifer is also significant as the source of water for Pollardstown Fen Special Area SAC. Research indicates that Kildare Town is outside the groundwater catchment for Pollardstown Fen. Nevertheless, AA screening should determine whether Pollardstown Fen SAC is within the zone of influence of the LAP.</p>	<p>This submission has been noted, the precautionary principal has been incorporated throughout the SEA and AA processes.</p> <p>An AA screening report was prepared for the draft LAP and the likely significant effects of the draft Plan on Natura 2000 sites have been screened.</p> <p>The AA Screening concluded:</p> <p><i>There are five European designated sites within the Zone of Influence (ZoI) of the draft Plan, namely Pollardstown Fen SAC, Mouds Bog SAC, Ballynafagh Lake SAC, River Barrow and River Nore SAC and Ballynafagh Bog SAC.</i></p> <p><i>Of these five European designated sites, there is only a potential impact pathway identified between the area covered by the draft Plan, and one site, namely the River Barrow and River Nore SAC. This is a hydrological connection via the Tully Stream and Armour Stream, along 13km of watercourse (including five confluences), to the Finnelly River which is designated as part of the River Barrow &amp; River Nore SAC.</i></p> <p><i>The potential for Likely Significant Effect (LSE) of each individual objective/land-use zoning in the draft Plan on the integrity of the River Barrow &amp; River Nore SAC has been systematically considered in the AA Screening Report and it is recommended that all objectives can be screened out from AA.</i></p>
	<p>There is a hydrological connection to the River Barrow and River Nore SAC (Site Code 002162) via the Tully Stream (approximately 13 km downstream (river length). Surface and storm water and other point-source discharges from Kildare Town discharge to the Tully Stream. The ecological status of the Tully stream is Poor in the upper reaches at Tully_010 (Q3-Poor Status biological water quality rating-invertebrates). Tully_010 is AT RISK due to unsatisfactory biology and chemistry. The Tully Stream_010 is a recommended ‘area for action’ for Water Framework Directive (WFD) third cycle (2022-2027). The Department recommends that downstream impacts of discharges of surface water and other diffuse and point-source discharges to the Tully Stream and effects on the River Barrow and River Nore SAC must be assessed.</p>	<p>This submission has been noted, the precautionary principal has been incorporated throughout the SEA and AA processes.</p> <p>An AA screening report was prepared for the draft LAP and the likely significant effects of the draft Plan on Natura 2000 sites have been screened.</p> <p>The AA Screening concluded:</p> <p><i>There are five European designated sites within the Zone of Influence (ZoI) of the draft Plan, namely Pollardstown Fen SAC, Mouds Bog SAC, Ballynafagh Lake SAC, River Barrow and River Nore SAC and Ballynafagh Bog SAC.</i></p> <p><i>Of these five European designated sites, there is only a potential impact pathway identified between the area covered by the draft Plan, and one site, namely the River Barrow and River Nore SAC. This is a hydrological connection via the Tully Stream and Armour Stream, along 13km of watercourse (including five confluences), to the Finnelly River which is designated as part of the River Barrow &amp; River Nore SAC.</i></p>

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		<p><i>The potential for Likely Significant Effect (LSE) of each individual objective/land-use zoning in the draft Plan on the integrity of the River Barrow &amp; River Nore SAC has been systematically considered in the AA Screening Report and it is recommended that all objectives can be screened out from AA.</i></p>
	<p>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.</p>	<p>The comments in this submission have been noted. Strategic Environmental Assessment has been undertaken for the draft Kildare Town LAP 2023-2029 in line with the SEA Directive (2001/42/EC) and best practice guidance. It should also be noted, that as part of the preparation of the SEA Scoping Report and also the SEA Environmental Report, baseline information was collected from available sources, including the 2020 EPA State of the Environment report. The preparation of the emerging draft Plan and the SEA have been iterative processes, with one continually being informed/ aligning with the other. Section 9 of this ER contains a detailed monitoring plan and reporting relevant to the draft Plan.</p> <p>The description and assessment of the baseline environment in Section 5 of this ER was informed by the SEA monitoring data sources outlined in the current LAP, as appropriate.</p>
	<p>Looking to the LAP for 2023- 2029, 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 (i.e. population growth and recreational impacts to the Curragh proposed Natural Heritage Area for example). Consequently, monitoring should be embedded into the plan and given clear quantifiable targets. Specifically, the SEA should establish effective and implementable monitoring of habitat loss, e.g., quantify and monitor the area of hedgerow, native woodland, semi-natural 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 plan.</p>	<p>This submission has been noted, a number of definitive measurable indicators have been included in Section 5.3 of the Scoping Report and Section 6 of this SEA ER. These indicators have been provided in relation to each environmental component:</p> <ul style="list-style-type: none"> <li>• Biodiversity;</li> <li>• Population and human health;</li> <li>• Land and soil;</li> <li>• Water resources;</li> <li>• Air, noise and climate;</li> <li>• Archaeological, architectural and cultural heritage;</li> <li>• Landscape and visuals; and</li> <li>• Material assets.</li> </ul> <p>This comment is welcomed, and the SEA ER makes reference to these areas in Section 6 – SEA Objectives, Targets and Indicators and Section 9 – Mitigation and Monitoring, as appropriate. Furthermore, the SEA is designed to assess the potential environmental effect of the policies of the draft LAP against the environmental baselines established. The policies and associated recommendations are assessed against a range of established environmental objectives and targets.</p>

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		<p>The Indicators recommended in the SEA are utilised over the lifetime of the draft LAP to quantify the level of impact that the policies and recommendations have on the environment. Section 6 of this ER details the Strategic Objectives, Targets and definitive measurable Indicators identified for the draft plan. Section 9 of this ER includes a detailed monitoring plan that 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. The Environmental Indicators have been developed to show changes that would be attributable to implementation of the draft LAP and any associated development of such.</p> <p>Furthermore, cumulative effects of the draft LAP have been considered furthermore and are detailed in Section 8.5 of this ER.</p>
	<p>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.</p>	<p>This comment is welcomed. The process of SEA, AA and the preparation of the draft Plan have been undertaken as an iterative process, with one continually being informed and aligned with the other although ensuring compliance with separate legislative requirements.</p>
	<p><u>Surface water</u></p> <p>Disposal of surface water drainage from Kildare town is constrained. In general, the existing surface water drainage system is a combination of soakaways, combined sewers and connections to the carrier pipe serving the M7 Kildare Town Bypass. The Department welcomes the commitment to preparing a Surface Water Study in addition to 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 4 rainfall events. Furthermore, the runoff from urban areas includes a toxic cocktail of pollutants washed off the urban impermeable areas into receiving waterbodies.</p> <p>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.</p>	<p>The impacts surface water and groundwater quality due to development and the impacts on designated SACs and SPAs within 15km of the plan area as a result of surface water pollution have been addressed as a key issue in Section 4.5.2 and will be considered furthermore within the preparation of the SEA Environmental Report of the draft LAP.</p> <p>A Strategic Flood Risk Assessment and Surface Water Study have been prepared for the draft LAP, refer to both for further detailed information.</p> <p>The Surface Water Study was carried out for the plan area , whereby the overall objective was to identify a municipal-level, multi-site, nature-based solutions to surface water (SW) management for Kildare Town. The study includes a number of recommendations for sustainably managing surface water in future developments within the Study Area around Kildare Town and concluded that:</p> <p><i>‘This report explores options for sustainably managing surface water in future developments within the Study Area around Kildare Town. Flow route analysis was carried out in the development zones to identify natural drainage paths and potential NBMA sites.</i></p>

Consultee/ Stakeholder	SEA Scoping Response	SEA Actions
		<p><i>A hierarchical approach to managing SW in discrete subcatchments is proposed with areas reserved in each for the implementation of nature-based solutions. The development of green corridors between subcatchments is encouraged with surface-based conveyances such as swales and open low flow channels utilised to mimic natural drainage processes as closely possible. Appendix A provides a conceptual overview of the recommended measures throughout the Study Area. The exact route of the drainage corridors are subject to the design and landscaping proposals for each development’.</i></p> <p>An AA screening report was prepared for the draft LAP and the likely significant effects of the draft Plan on Natura 2000 sites have been screened.</p> <p>The AA Screening concluded:</p> <p><i>There are five European designated sites within the Zone of Influence (ZoI) of the draft Plan, namely Pollardstown Fen SAC, Mouds Bog SAC, Ballynafagh Lake SAC, River Barrow and River Nore SAC and Ballynafagh Bog SAC.</i></p> <p><i>Of these five European designated sites, there is only a potential impact pathway identified between the area covered by the draft Plan, and one site, namely the River Barrow and River Nore SAC. This is a hydrological connection via the Tully Stream and Armour Stream, along 13km of watercourse (including five confluences), to the Finnerly River which is designated as part of the River Barrow &amp; River Nore SAC.</i></p> <p><i>The potential for Likely Significant Effect (LSE) of each individual objective/land-use zoning in the draft Plan on the integrity of the River Barrow &amp; River Nore SAC has been systematically considered in the AA Screening Report and it is recommended that all objectives can be screened out from AA.</i></p>
	<p>Nature-based Sustainable Urban Drainage Systems (SuDs) are designed to absorb, retain, store and treat urban runoff prior to discharge back into the environment. As outlined in the Department’s recently published Best Practice Interim Guidance Document ‘Nature-based Solutions to the Management of Rainwater and Surface Water Runoff in Urban Areas, Water Sensitive Urban Design (2021)’, 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.</p>	<p>This comment is welcomed and is for the attention of KCC.</p> <p>A Strategic Flood Risk Assessment and Surface Water Study have been prepared for the draft LAP, refer to both for further detailed information.</p>

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	<p><u>The Tully Stream</u></p> <p>As previously mentioned, the Tully Stream lies to the south of the town. Kildare Town surface water and storm water overflow and other point source discharges enters the Tully Stream south of the National Stud and Japanese Gardens. The Tully Stream 010 is a recommended 'area for action' for the third cycle of the WFD. The recommended area for action subcategory is 'Local Authority Areas for Restoration', with Kildare County Council as the lead organisation. The Department recommends that consideration should be given to revising the LAP boundary to include the Tully Stream and green infrastructure surrounding it to the east of St. Bridget's garden well. This area includes the surface water discharge from Kildare town and is mapped as green infrastructure in the Kildare Local Area Plan 2012 – 2018 and it is likely hydrologically connected to St. Bridget's Garden well and other springs in the area.</p>	<p>This comment is for the attention of KCC.</p>
	<p><u>The Curragh Aquifer</u></p> <p>Kildare town is underlain by the Regionally Important Gravel Aquifer, the Curragh Aquifer. Its hydrogeology is significant as it is an important source of baseflow for rivers and streams and the source of water for Pollardstown Fen SAC, the Grand Canal proposed Natural Heritage Area (pNHA) (Site Code 002104) as well as other habitats including the ponds at the Japanese Gardens and National Stud. This aquifer is recharged from rainwater percolating through the topsoil and unsaturated sand and gravel deposits. Surface runoff from such gravel aquifers is considered to be low, not more than 20% of effective rainfall. The Department advises that the effects of LAP implementation on groundwater quality and quantity are assessed. This should include an assessment of the impacts of any proposed nature-based SUDs, such as soakaways and retention basins, due to the aquifer's high vulnerability status. Monitoring of the aquifer should be considered.</p>	<p>This comment has been noted and the SEA ER has since been prepared to reflect these areas of concern, as appropriate.</p> <p>A Strategic Flood Risk Assessment and Surface Water Study have been prepared for the draft LAP, refer to both for further detailed information.</p> <p>An AA screening report was prepared for the draft LAP and the likely significant effects of the draft Plan on Natura 2000 sites have been screened.</p> <p>The AA Screening concluded:</p> <p><i>There are five European designated sites within the Zone of Influence (ZoI) of the draft Plan, namely Pollardstown Fen SAC, Mouds Bog SAC, Ballynafagh Lake SAC, River Barrow and River Nore SAC and Ballynafagh Bog SAC.</i></p> <p><i>Of these five European designated sites, there is only a potential impact pathway identified between the area covered by the draft Plan, and one site, namely the River Barrow and River Nore SAC. This is a hydrological connection via the Tully Stream and Armour Stream, along 13km of watercourse (including five confluences), to the Finney River which is designated as part of the River Barrow &amp; River Nore SAC.</i></p> <p><i>The potential for Likely Significant Effect (LSE) of each individual objective/land-use zoning in the draft Plan on the integrity of the River Barrow &amp; River Nore SAC has been systematically considered in the AA Screening Report and it is recommended that all objectives can be screened out from AA.</i></p>
	<p><u>The Curragh Plain</u></p> <p>The Curragh is a pNHA located directly adjacent to Kildare Town, adjoining the eastern LAP boundary. Habitats within the Curragh are dominated by dry-humid acid grassland (GS3) and gorse dominated scrub (WS1).</p>	<p>These comments are welcomed and have been noted. The monitoring table in Section 9 of this report has considered the areas of concern noted, as appropriate.</p>

Consultee/ Stakeholder	SEA Scoping Response	SEA Actions
	<p>The grassland at the Curragh supports high species richness in a particular fungal group i.e. Hygrocybe species or waxcaps. The Curragh is ranked as the top site nationally for this grassland type. Sites rich in grassland fungi are scarce and threatened on a world scale, and the extent of this habitat in northern Europe has declined dramatically. Grazing by sheep is important to maintain this grassland. The greenbelt zoning in the current LAP is specifically intended to protect the Curragh and National Stud by providing a buffer between them and the urban area. The Department recommends that the National Stud/Greenbelt zoning in the current LAP is retained to protect this site. Given the absence of a dedicated town park within the town, it is further recommended that recreational impacts on the Curragh Plain, such as trampling, erosion and disturbance of meadow pipit and skylark, a ground-nesting birds of high and medium conservation concern respectively, are considered as part of the monitoring of the LAP.</p> <p>Alternative recreation areas should be also considered to reduce recreational pressure on this important conservation site. Air pollutants are known to have played a role in the Europe-wide decline of tree-associated ectomycorrhizal fungi, both through a reduction in the trees' ability to photosynthesise and through changes in soil acidification and nitrogen accumulation. Similar, but less studied effects are probable for grasslands. The effect of nitrogen deposition as a result of LAP implementation on the Curragh Plain grassland and its waxcap fungi should be considered. The Department recommends that SEA scoping refers to the Conservation Management Plan for the Curragh which has been commissioned by Kildare County Council and the Department of Defence.</p>	<p>Section 5 of this ER has also been updated to make reference to the effect of nitrogen deposition as a result of draft LAP implementation on the Curragh Plain grassland and its waxcap fungi.</p> <p>An AA screening report was prepared for the draft LAP and the likely significant effects of the draft Plan on Natura 2000 sites have been screened.</p> <p>The AA Screening concluded:</p> <p><i>There are five European designated sites within the Zone of Influence (ZoI) of the draft Plan, namely Pollardstown Fen SAC, Mouds Bog SAC, Ballynafagh Lake SAC, River Barrow and River Nore SAC and Ballynafagh Bog SAC.</i></p> <p><i>Of these five European designated sites, there is only a potential impact pathway identified between the area covered by the draft Plan, and one site, namely the River Barrow and River Nore SAC. This is a hydrological connection via the Tully Stream and Armour Stream, along 13km of watercourse (including five confluences), to the Finnerly River which is designated as part of the River Barrow &amp; River Nore SAC.</i></p> <p><i>The potential for Likely Significant Effect (LSE) of each individual objective/land-use zoning in the draft Plan on the integrity of the River Barrow &amp; River Nore SAC has been systematically considered in the AA Screening Report and it is recommended that all objectives can be screened out from AA.</i></p>
	<p><u>Invasive Species</u></p> <p>An objective to ensure the containment and control of Invasive Alien Species (IAS), in accordance with the EC (Birds and Natural Habitats) Regulations, 2011 – 2021 and EU Regulation (1143/2014) on the prevention and management of the introduction and spread of invasive alien species should be included in the LAP. It is noted that Giant hogweed (<i>Heracleum mantegazzium</i>) and Japanese knotweed (<i>Fallopia japonica</i>) have been found within the former Magee Barracks site. These are alien invasive species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011- 2021. It is noted that an invasive species management plan is being implemented at the site by the landowner.</p>	<p>These comments are welcomed and have been noted. The SEA Scoping Report has made reference to invasive species throughout, particularly within Section 4.3.2.3. Similarly, the SEA ER has also made reference to this issue. The inclusion of such within the draft LAP is for the attention of KCC.</p>
	<p><u>Green Infrastructure (GI)</u></p> <p>The incorporation of Green Infrastructure (GI) in spatial planning is one of the ways in which the National Biodiversity Action Plan 2017- 2021 proposes to address the main drivers of biodiversity loss in Ireland. There should be a clear commitment made to protect existing ecological corridors associated with the railway corridor's embankment and the road corridor of the 'M7'. Consideration should be given to inclusion of a proposed Strategic Green Infrastructure Network within the LAP.</p>	<p>For the attention of KCC.</p>

Consultee/ Stakeholder	SEA Scoping Response	SEA Actions
	<p>A distinction should be made between GI and greenways and other trail development within the LAP. Development of new greenways should look to support rather than replace existing green infrastructure. Existing areas of green infrastructure mostly coincide with important areas for biodiversity and such areas should be avoided by hard infrastructure. Route selection can be used to examine alternatives in this regard.</p>	
	<p><u>Annex IV Species (Bats and Otter)</u></p> <p>Clear and robust objectives are required to ensure the strict protection of all bat species and otter, species listed under Annex IV species under the European Communities (Birds and Natural Habitats) Regulations, 2011 to 2021. The recent Department publication ‘Guidance on the Strict Protection of Certain Animal and Plant Species under the Habitats Directive in Ireland’, should be consulted. The Department advises that plans and projects relating to the restoration and re-use of historic buildings must be accompanied by a bat survey report. The Department recommends that objectives are included within the LAP to reduce the impact of lighting on wildlife, including bat species.</p> <p>Reported declines in insect populations have sparked global concern, with artificial light at night (ALAN) identified as a potential contributing factor. Recent scientific evidence indicates that ALAN and the ongoing shift toward white LEDs (i.e., from narrow to broad-spectrum lighting) will have substantial consequences for insect populations and ecosystem processes. The Department advises that there should be a presumption against the lighting of entire footpaths and cycle tracks, in areas with low or no levels of background light and along ecological/green corridors, riparian corridors, woodlands and other habitat areas. The Department recommends that documents which provide further information on reducing lighting impacts, such as EUROBATs12, Dark Sky Ireland13 and Institute of Lighting Professions lighting guidance, should be consulted.</p>	<p>These comments are welcomed, however as they relate to suggested objectives for the draft Plan, are for the attention of KCC.</p>
	<p><u>Swifts</u></p> <p>The swift is an urban bird species of conservation concern in Ireland. The town’s swift population is a significant biodiversity asset. The Department recommends that swift conservation measures are included in the LAP. The Department suggests that the Local Authorities include an objective that all new public buildings consider swift nest bricks/boxes at development pre-planning stage.</p>	<p>These comments are welcomed, however as they relate to suggested objectives for the draft Plan, are for the attention of KCC.</p>
	<p><u>All-Ireland Pollinator Plan</u></p> <p>Measures in the All-Ireland Pollinator Plan 2021 – 2025 should be included in the LAP, in particular actions outlined in the ‘Council’s Actions to Help Pollinators Guide. The All-Ireland Pollinator Plan advises against planting wildflower seed outside a garden setting. The Department agrees that wildflower seed mixes can be harmful to existing wildflower biodiversity. The Local Authority should consider the management of existing natural seedbanks to allow for wildflower meadow establishment as an alternative to sowing wildflower seed.</p>	<p>These comments are welcomed, for the attention of KCC.</p>



Consultee/ Stakeholder	SEA Scoping Response	SEA Actions
Geological Survey of Ireland (GSI)	<p>Recommends using these various data sets, when conducting the EIAR, SEA, planning and scoping processes. Use of our data or maps should be attributed correctly to ‘Geological Survey Ireland’. Please find attached a list of our publicly available datasets that may be useful to the environmental assessment and planning process. We recommend that you review this list and refer to any datasets you consider relevant to your assessment.</p>	<p>Use of the various data sets included in this submission have been noted and reviewed as useful support tools to assist the SEA process.</p>
	<p><u>Geoheritage</u></p> <p>Geological Survey Ireland is in partnership with the National Parks and Wildlife Service (NPWS, Department of Housing, Local Government and Heritage), to identify and select important geological and geomorphological sites throughout the country for designation as geological NHAs (Natural Heritage Areas). This is addressed by the Geoheritage Programme of Geological Survey Ireland, under 16 different geological themes, in which the minimum number of scientifically significant sites that best represent the theme are rigorously selected by a panel of theme experts.</p> <p>County Geological Sites (CGSs), as adopted under the National Heritage Plan, include additional sites that may also be of national importance, but which were not selected as the very best examples for NHA designation. All geological heritage sites identified by Geological Survey Ireland are categorised as CGS pending any further NHA designation by NPWS. CGSs are now routinely included in County Development Plans and in the GIS of planning departments, to ensure the recognition and appropriate protection of geological heritage within the planning system. CGSs can be viewed online under the Geological Heritage tab on the online Map Viewer.</p> <p>The audit for Co. Kildare was carried out in 2005. The full report details can be found here. Our records show that there is a there are CGS in the vicinity of the LAP. St. Bridget’s Well - Japanese Gardens, Co. Kildare (GR 273501, 210930), under IGH theme: IGH 16 Hydrogeology. Spring supplying Japanese Gardens. This site is simply a good example of a spring in a publicly accessible place, and is of County Geological Site status, but not of national importance. Link to Site Report: KE018.</p>	<p>Noted. The GSI website and records, National Heritage Plan and the Kildare County Development Plan have all been reviewed with reference to County Geological Sites (CGSs) and reference to St. Bridget’s Well - Japanese Gardens has been made throughout the Scoping Report, particularly in Section 4.4. GSI Geological Heritage Sites have also been illustrated in Figure A5 of the SEA Scoping Report and are included in Appendix A of this Environmental Report.</p>
	<p><u>Dimension Stone/Stone Built Ireland</u></p> <p>Stone Built Ireland was a research collaboration agreement between Geological Survey Ireland, Trinity College Dublin &amp; the office of Public Works. The project aims to document building and decorative stone in Ireland to inform government agencies, building owners and conservationists of the sources for suitable replacement stone in restoration work and to develop a greater awareness among the general public. In addition to promoting citizen science and awareness of local materials, the inventory will aid the public in complying with part 4 of the Planning and Development Act 2000, which requires owners to conserve protected structures. It will also assist local authorities in issuing Section 57 Declarations, which outline ‘the type of works which it considers would or would not materially affect the character of the structure or any element of the structure’.</p>	<p>These comments have been noted and <a href="http://www.stonebuiltireland.com">www.stonebuiltireland.com</a> has since been reviewed.</p>

Consultee/ Stakeholder	SEA Scoping Response	SEA Actions
	<p>This project builds on work already completed funded by the Irish Research Council (March 2019 - September 2020) that carried out primary research on the topic and developed a simple database and web-based platform as well as hosting various heritage displays at venues (www.stonebuiltireland.com). The complete STONEBUILT IRELAND online database is due to be released shortly.</p>	
	<p><u>Geotourism</u></p> <p>Over the past number of years geology has become a large part of Irish tourism. Ireland currently has three UNESCO Global Geoparks, and a number of other geotourism projects. These Geoparks, along with other tourism initiatives such as the Wild Atlantic Way, Irelands Ancient East, and Ireland’s Hidden Heartlands have bolstered tourism in various parts of Ireland and helped to increase its levels in areas that were previously not as popular with tourists. GSI encourages Kildare County Council to continue this trend of geotourism, and to use the geological audit information making it easily available to the general public.</p>	<p>These comments are welcomed. For the attention of KCC.</p>
	<p><u>Groundwater</u></p> <p>Geological Survey Ireland’s Groundwater and Geothermal Unit, provides advice, data and maps relating to groundwater distribution, quality and use, which is especially relevant for safe and secure drinking water supplies and healthy ecosystems. Proposed developments need to consider any potential impact on specific groundwater abstractions and on groundwater resources in general.</p> <p>We recommend using the groundwater maps on our Map viewer which should include: wells; drinking water source protection areas; the national map suite - aquifer, groundwater vulnerability, groundwater recharge and subsoil permeability maps. For areas underlain by limestone, please refer to the karst specific data layers (karst features, tracer test database; turlough water levels (gwlevel.ie). Background information is also provided in the Groundwater Body Descriptions. Please read all disclaimers carefully when using Geological Survey Ireland data. The Groundwater Data Viewer indicates several aquifers classed as a ‘Regionally Important Aquifer - Karstified (diffuse)’, a ‘Regionally important gravel aquifer’, a ‘Poor Aquifer - Bedrock which is Generally Unproductive except for Local Zones’ and a ‘Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones’ underlie the LAP. The Groundwater Vulnerability map indicates the range of groundwater vulnerabilities within the area covered is variable. GSI would therefore recommend use of the Groundwater Viewer to identify areas of High to Extreme Vulnerability and ‘Rock at or near surface’ in your assessments, as any groundwater-surface water interactions that might occur would be greatest in these areas. GWClimate is a groundwater monitoring and modelling project that aims to investigate the impact of climate change on groundwater in Ireland. This is a follow on from a previous project (GWFlood) and the data may be useful in relation to Flood Risk Assessment (FRA) and management plans. Maps and data are available on the Map viewer. Geological Survey Ireland has completed Groundwater Protection Schemes (GWPSs) in partnership with Local Authorities, and there is now national coverage of GWPS mapping. A Groundwater Protection Scheme provides guidelines for the planning and licensing authorities in carrying out their functions, and a framework to assist in decision-making on the location, nature and control of developments and activities in order to protect groundwater.</p>	<p>This comment is welcomed. Use of GSI’s Groundwater Resources have been reviewed and utilised throughout the SEA process. Groundwater Body Quality Status in the vicinity of the plan area has been illustrated in Figure A9, Groundwater Vulnerability has been illustrated in Figure A10,</p> <p>Protected Drinking Water (Ground Water) has been illustrated in Figure A11 and Groundwater Features and Public Supply Source Protection Zones have been illustrated in Figure A12, Appendix A of the SEA Scoping Report and also in Appendix A of this ER.</p> <p>A Strategic Flood Risk Assessment and Surface Water Study have also been prepared for the draft Plan , refer to both for further information.</p>

Consultee/ Stakeholder	SEA Scoping Response	SEA Actions
	<p>The Kildare Groundwater Protection Response overview and link to the main reports is here: <a href="https://www.gsi.ie/en-ie/publications/Pages/Kildare-Groundwater-Protection-Scheme-Reports.aspx">https://www.gsi.ie/en-ie/publications/Pages/Kildare-Groundwater-Protection-Scheme-Reports.aspx</a>.</p>	
	<p><u>Geological Mapping</u></p> <p>Geological Survey Ireland maintains online datasets of bedrock and subsoils geological mapping that are reliable and accessible. We would encourage you to use these data which can be found here, in your future assessments. Please note we have recently launched QGIS compatible bedrock (100K) and Quaternary geology map data, with instructional manuals and videos. This makes data more accessible to general public and external stakeholders. QGIS compatible data can be found in our downloadable bedrock 100k .zip file on the Data &amp; Maps section of the GSI website.</p>	<p>Use of the Geological Survey Ireland’s online datasets of bedrock and subsoils geological mapping have been reviewed in full and incorporated throughout the SEA Scoping and SEA Environmental Report.</p>
	<p><u>Geotechnical Database</u></p> <p>Resources Geological Survey Ireland continues to populate and develop the national geotechnical database and viewer with site investigation data submitted voluntarily by industry. The current database holding is over 7500 reports with 134,000 boreholes; 31,000 of which are digitised which can be accessed through downloads from our Geotechnical Map Viewer.</p> <p>We would encourage the use of this database as part of any baseline geological assessment of the proposed development as it can provide invaluable baseline data for the region or vicinity of proposed development areas. This information may be beneficial and cost saving for any site-specific investigations that may be designed as part of the project.</p>	<p>Use of the GSI database included in this submission have been noted and reviewed as useful support tools to assist the SEA process.</p>
	<p><u>Geohazards</u></p> <p>Geohazards can cause widespread damage to landscapes, wildlife, human property and human life. In Ireland, landslides, flooding and coastal erosion are the most prevalent of these hazards. We recommend that geohazards be taken into consideration, especially when developing areas where these risks are prevalent, and we encourage the use of our data when doing so. Geological Survey Ireland has information available on landslides in Ireland via the National Landslide Database and Landslide Susceptibility Map both of which are available for viewing on our dedicated Map Viewer. Associated guidance documentation relating to the National Landslide Susceptibility Map is also available. Geological Survey Ireland also engaged in a national project on Groundwater Flooding. The data from this project may be useful in relation to Flood Risk Assessment (FRA) and management plans, and is described in more detail under ‘Groundwater’ above.</p>	<p>Use of the GSI databases included in this submission have been noted and reviewed as useful support tools to assist the SEA process.</p> <p>A Strategic Flood Risk Assessment and Surface Water Study have also been prepared for the draft Plan , refer to both for further information.</p>
	<p><u>Geothermal Energy</u></p> <p>Geothermal energy harnesses the heat beneath the surface of the Earth for heating applications and electricity generation, and has proven to be secure, environmentally sustainable and cost effective over long time periods. Geothermal applications can range in depth from a few metres below the surface to several kilometres.</p>	<p>This comment is welcomed, and Geological Survey Ireland’s Geothermal Suitability maps have been reviewed as useful support tools to assist the SEA process.</p>

Consultee/ Stakeholder	SEA Scoping Response	SEA Actions
	<p>Ireland has widespread shallow geothermal resources for small and medium-scale heating applications, which can be explored online through Geological Survey Ireland’s Geothermal Suitability maps for both domestic and commercial use. GSI recommends use of our Geothermal Suitability maps to determine the most suitable type of ground source heat collector for use with heat pump technologies. Ireland also has recognised potential for deep geothermal resources. The Roadmap for a Policy and Regulatory Framework for Geothermal Energy was launched at the Geoscience 2020 Conference in November 2020. The Assessment of Geothermal Resources for District heating in Ireland and the Roadmap for a Policy and Regulatory framework for Geothermal Energy in Ireland documents have been developed to support the Government’s commitments under the Climate Action Plan 2019 and the Programme for Government. For further information please see our Geoenergy pages on our website or contact the Groundwater and Geothermal Unit of the Geological Survey Ireland directly.</p>	
	<p>Geochemistry of soils, surface waters and sediments Geological Survey Ireland provides baseline geochemistry data for Ireland as part of the Tellus programme. Baseline geochemistry data can be used to assess the chemical status of soil and water at a regional scale and to support the assessment of existing or potential impacts of human activity on environmental chemical quality. Tellus is a national-scale mapping programme which provides multi-element data for shallow soil, stream sediment and stream water in Ireland.</p> <p>At present, mapping consists of the border, western and midland regions. Data is available at <a href="https://www.gsi.ie/enie/data-and-maps/Pages/Geochemistry.aspx">https://www.gsi.ie/enie/data-and-maps/Pages/Geochemistry.aspx</a>. This page also hosts Geochemical Mapping of Agricultural and Grazing Land Soil of Europe (GEMAS) and litho-geochemistry (rock geochemistry) from southeast Ireland datasets. Geological Survey Ireland and partners are undertaking applied geochemistry projects to provide data for agriculture (Terra Soil), waste soil characterisation (Geochemically Appropriate Levels for Soil Recovery Facilities) and mineral exploration (Mineral Prospectivity Mapping)</p>	<p>This comment is welcomed, and Geological Survey Ireland’s Tellus programme has been reviewed as useful support tools to assist the SEA process</p>

#### 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 draft Plan's implementation, as well as helping establish how the environment would change if the Plan 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 LAP, taking into account national planning policy, economic development policy, and the 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 Plan , taking into account national planning policy, economic development policy, and the SEOs identified in Section 6.

#### 4.7 Environmental Assessment of the draft Plan

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

The environmental effects of the draft 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 4.2 which is based on the impact assessment criteria defined by the EPA for environmental impact assessment.

**Table 4.2 Significance Ratings**

Significance of Effects	
Blue	Neutral
Green	Positive
Red	Negative
Yellow	Uncertain

#### 4.8 SEA Statement

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

It will highlight the following:

- Main changes to the draft Plan which resulted from the SEA process.
- How the Environmental Report and consultations were taken into account.

- Summary of the key issues raised in consultations and in the Environmental Report indicating what action was taken in response.
- The reasons for choosing measures contained in the draft Plan in the light of the other alternatives, identifying the other alternatives considered, commenting on their potential effects and explaining why the draft Plan was selected.

## **4.9 Consultations**

Further to the SEA Scoping consultation outlined in Section 4.3, this SEA Environmental Report will be issued to the relevant statutory stakeholders and the general public for comment. The responses received will be addressed in the finalisation of the Environmental Report. 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 Environmental Report.

# **5. Current State of the Environment**

## **5.1 Introduction**

An assessment of the current state of the environmental and key environmental issues for Kildare Town is summarised in this report. A full description will also be included in the Environmental Report. 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 Resources;
- 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 Plan are likely to be significant.

## 5.2 Population and Human Health

### 5.2.1 Population Baseline

According to Census 2016 data, the population of Kildare Town in 2016 was 8,634 over an area of 3.105 km<sup>2</sup>. This represents an annual population change of 1.2% from 2011 to 2016 (CSO, 2022)<sup>13</sup>.

This figure will represent Kildare Towns baseline in the absence of published 2022 Census Data. Preliminary Census 2022 results have detailed County Kildare as a whole, to have seen strong a population growth from 2016 census data (CSO, 2022)<sup>14</sup>.

The Core Strategy of the Kildare CDP allocates growth within Kildare Town of 4.7% of the overall county allocation. Table 2.8 of the CDP identifies dwelling targets for the year 2023 to the end of 2028. The growth estimates for Kildare Town are reproduced in Table 5.1 below.

**Table 5.1 Excerpt from Table 2.8 of Chapter 2 Kildare County Development Plan 2023 – 2029 relating to Kildare Town**

Settlement Type	2016 Population Census	Settlements percentage per total County population	2021 Population Estimate (based on % growth from 2011 - 2016)	Housing & Population Target %	Population Target 2023 to 2028 (end of Q4) (persons)	Housing Target 2023 to 2028 (end of Q4) (units) in accordance with HSTGS	Residential Zoned Land Requirement (ha)	Target Residential Density (UPH)
Self-sustaining growth town	8,634	3.9	9,134	4.7	1,182	430	14	35-40

### 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.

<sup>13</sup> CSO (2022) Population Statistics. Available at: [Home - CSO - Central Statistics Office](#)

<sup>14</sup> CSO (2022) Press Statement Census of Population 2022 - Preliminary Results. Available at: [Press Statement Census of Population 2022 - Preliminary Results - CSO - Central Statistics Office](#)

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.

The Kildare CDP sets out the Council's policies and objectives relating to the provision of health services in the county.

It is the policy of Kildare County Council, for example 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'* (KCC, 2022)<sup>15</sup>.

According to 2016 Census Data, 1.7 – 2.3% of Kildare Town has identified themselves as having Bad or Very Bad health. The number of individuals who stated that their health either bad or very bad in 2016 was 191 (CSO, 2016)<sup>16</sup>.

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 county 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, land cover in Kildare Town has been identified to see 'about 1 in 10 homes in this area likely to have high radon levels' (EPA, 2022)<sup>17</sup>.

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 Plan are assessed.

The Control of Major-Accident Hazards Involving Dangerous Substance ("SEVESO") III Directive: 2012/18/EU came into effect in Ireland on 1st June 2015, replacing the Seveso II Directive 96/82/EC.

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<sup>15</sup> KCC (2023) Kildare County Development Plan – Chapter 10 Community Infrastructure and Creative Places. Available at: [https://www.bing.com/search?q=draft+kildare+county+development+plan+2023&qsn=&form=QBRE&msbsrank=1\\_1\\_0&sp=-1&pq=draft+kildare+county+development+plan+2023&sc=6-42&sk=&cvid=F9B9F63F29BC41D8AF3A38F3BD0FC7F0&ghsh=0&ghacc=0&ghpl=](https://www.bing.com/search?q=draft+kildare+county+development+plan+2023&qsn=&form=QBRE&msbsrank=1_1_0&sp=-1&pq=draft+kildare+county+development+plan+2023&sc=6-42&sk=&cvid=F9B9F63F29BC41D8AF3A38F3BD0FC7F0&ghsh=0&ghacc=0&ghpl=)

<sup>16</sup> CSO (2022) Maps ArcGIS. Available at: [Map 4.2: General health bad and very bad by electoral division, 2016 \(arcgis.com\)](https://arcgis.com/maps/arcgis/rest/services/Map_4.2:_General_health_bad_and_very_bad_by_electoral_division_2016/MapServer)

<sup>17</sup> EPA (2022) EPA Random Risk Map of Ireland. Available at: [EPA Maps](https://www.epa.ie/pressroom/2022/03/epa-random-risk-map-of-ireland)



Article 13 of the new Directive requires member states to ensure that the objectives of preventing major accidents and limiting the consequences of such accidents are taken into account in land use policies and/or other relevant policies. These objectives must be pursued through controls on the following:

- The siting of new establishments;
- Modifications to existing establishments; and
- New developments including transport routes, locations of public use and residential areas in the vicinity of establishments, where the siting or developments may be the source of or increase the risk or consequences of a major accident.

There are no designated Seveso sites located within the Plan area.

### **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 Plan 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.

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, and other areas.

#### **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 Kildare County Biodiversity Plan provides a framework for conserving biodiversity and natural heritage at a local level. It complements the Kildare Heritage Plan by including detailed actions to deliver positive outcomes focused on species and habitats.

The dominant environments across County Kildare are improved grassland (for agriculture), urban, built land and forest/woodland (mixed and broad leaved) and bog 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 biodiversity of County Kildare is protected by National and EU legislation (The Wildlife Act (1976 & 2000) and the EU Habitats and Birds Directives) and is also protected by KCC through policies in the Kildare County Development Plan.

### 5.3.1.1 Habitats

Kildare Town is located within the commuter belt that serves the greater Dublin area and like many towns in County Kildare, has seen an increase in residential development in recent years. Nonetheless, like many County Kildare towns, the outer fringes of Kildare Town are dominated by agricultural pastureland, bounded by treelines and hedgerows. Improved agricultural grassland is the most dominant habitat in Kildare Town reflecting the large tracts of agricultural pastureland associated with the area.

The fields associated with this habitat are of relatively low value for biodiversity (KCC, 2011)<sup>18</sup>. The rural character explains the extent of hedgerows within Kildare supporting 110 km of hedgerows (Tubridy and Associates, 2007)<sup>19</sup>.

In Kildare Town, habitats of large biodiversity value are less frequent than other areas of County Kildare. It is estimated that 16% of Kildare Town comprises of areas of biodiversity value, this number is inflated by the presence of the Curragh, which is located directly adjacent to Kildare Town, along the east side of the draft Plan Boundary.

The areas of biodiversity value in Kildare include the array of semi-natural habitats associated with the Curragh proposed Natural Heritage Area (Site code: 000392), pockets of highly modified woodland (WD), a pocket of semi-natural woodland (WN) at Silliothill and wet grassland (GS4) associated with the margins of the Tully River, Japanese Gardens and National Stud.

Other areas include the railway corridor's embankment and isolated mesotrophic ponds situated near the north-western boundary of Kildare Town<sup>19</sup>.

The Kildare Biodiversity Action Plan provides an overview of the habitats of County Kildare. At present there is no Biodiversity Action Plan for Kildare Town, however, there are habitats and features which are of particular importance for biodiversity throughout Kildare Town. These include woodlands, hedgerows, field boundaries, wet grasslands, urban parks and gardens. A summary of those relevant to Kildare Town are provided below:

#### **Grassland**

The most prominent grassland habitats in Kildare Town LAP Boundary include semi-natural grassland which is inclusive to dry neutral and calcareous grassland (GS1). There is a dominance of agricultural grassland across the Kildare Town LAP Boundary<sup>18</sup>. Other associated habitats include a relatively diverse wet grassland habitat (GS4), which is predominantly located in the north of the LAP Boundary<sup>18</sup>.

The Curragh is a proposed Natural Heritage Area that is not located within, but is directly adjacent to the eastern boundary of the LAP<sup>19, 20</sup>. The Curragh site is inclusive of dry calcareous grassland habitat (GS1) on a steep sloped esker ridge. This semi-natural grassland is considered to be of regional importance for nature conservation as it supports species typically associated with the priority type calcareous grassland<sup>19</sup>.

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<sup>18</sup> KCC (2011) Green Infrastructure in three Kildare Towns – Kildare. Available at: [Green Infrastructure Report Kildare.pdf \(kildarecoco.ie\)](#)

<sup>19</sup> Tubridy and Associates (2007) County Kildare Habitats Survey 2007. Report prepared for the Kildare Heritage Forum: An action of the Kildare Heritage Plan.

<sup>20</sup> KCC (2011) Green Infrastructure in three Kildare Towns – Kildare. Available at: [Green Infrastructure Report Kildare.pdf \(kildarecoco.ie\)](#)

### ***Canals, Rivers and Streams***

The three main rivers that flow through Kildare are the Barrow, the Liffey and the Boyne, along with other small rivers and tributaries. There are no rivers situated within the draft Plan area but the Tully River, a tributary of the River Barrow is situated to the south of the Plan boundary. The Barrow is designated as a site of international nature conservation importance based on the diverse range of habitats that occur along and, in the river, including wet woodland and petrifying springs, and because of the presence of several species such as otters, crayfish and Atlantic salmon. The River Barrow is designated as a Special Area of Conservation (SAC) (Site code: 002162). Kingfishers are reported to be common along the Barrow utilising its rich food supply.

### ***Wetlands***

In Kildare Town, there are a number of spring fed wetlands within the vicinity of the Japanese Gardens and National Stud, that form a network of freshwater habitats of local interest. The entire area of Kildare Town supports some unique groundwater habitats that are integral to various wetland ecosystems.

Some of the wetland ecosystems identified in Kildare Town are springs and streams (FW2) including the Tully Stream, also other artificial ponds, lakes (FL8) and drainage ditches (FW4). Other associated habitats include a relatively diverse wet grassland habitat (GS4) and a small pocket of wet woodland<sup>20</sup>.

### ***Trees, Woodland and Hedgerows***

The retention of trees should be considered at the design stage of any development. When planting hedgerows, species indigenous to the area should be used. The County Kildare Hedgerow Survey identified the predominant hedgerow species in County Kildare (N. Foulkes, 2006)<sup>21</sup>. This survey recorded that Kildare Town had hedgerow lengths of up to 10.2km, which was a higher range of hedgerow length in comparison to other areas of County Kildare<sup>21</sup>.

The railway line through Kildare Town, which bisects the northern half of the town is a biodiversity feature of regional interest as it is mostly fringed by a range of semi-natural habitats.

The main habitat bordering the railway line includes hedgerows, however smaller pockets of other semi-natural habitats can be found on its embankments, including that of dry neutral and calcareous grassland (GS1), treelines (WL2) and scrub (WS1)<sup>19</sup>.

Hedgerow habitats in Kildare Town are predominantly located on well drained earth banks. There is also a hedgerow network located toward the northern boundary of Kildare Town, that provides an extensive and almost continual linear connectivity between the semi-natural habitats of the Curragh and the wider landscape to the north and west<sup>19,20</sup>.

### ***Semi-natural woodland – Silliothill***

The woodland (WN2) habitat at Silliothill (south of the motorway) is an important reservoir of plants, birds and invertebrates of regional importance. It has developed around abandoned quarries and has an exceptionally rich woodland flora. The woodland is formed on hazel and hawthorn dominated scrub with mature ash and yew growing in and around three disused quarries<sup>20</sup>. The species in this habitat are discussed in Section 5.3.1.2.

### ***Conifer Woodland and wet grassland – Brallistown***

There are pockets of conifer woodland and adjoining wet grassland and scrub that can be found at Brallistown, located near the southern boundary of Kildare Town<sup>20</sup>. The Tully Stream which flows through Kildare Town to the south of the Japanese Gardens is also fringed by riparian woodland (WN5), treelines (WL2) and pockets of conifer plantation (WD4).

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<sup>21</sup> N. Foulkes (2006) The Heritage Council - COUNTY KILDARE HEDGEROW SURVEY REPORT. Available at: [Microsoft Word - County Kildare Hedgerow Survey Report .doc \(hedgelaying.ie\)](#)

### **Urban wildlife habitats**

In Kildare Town, the railway line which bisects the northern half of the town is a biodiversity feature of regional interest. The railway line is mostly fringed by a range of semi-natural habitats. The main habitat bordering the railway line included hedgerows, however smaller pockets of other semi-natural habitats were also found on its embankments, in these areas' biodiversity levels are high<sup>19</sup>.

In particular, the railway line and its adjoining habitats provide an important habitat for songbirds, insects and native plants. In addition to this, it provides a suitable corridor for the movement of these species into and out of the town and between adjacent semi-natural habitats. The dry-stone walls in this area, bounding the roads adjacent to the railway station also provide a locally important habitat for drought tolerant plants and are good for insects<sup>19</sup>.

The conifer woodland and wet grassland at Brallistown, in Kildare Town provide cover and shelter in addition to nesting and or roosting habitat for both bat and bird species, in an area that is not inclusive to a large amount of woodland cover<sup>19</sup>.

The road corridor of the 'M7 Motorway' is inclusive to screen planting along its borders, as this planting continues to mature it is likely that it will provide more viable ecosystem and ecological connectivity.

It is considered this outcome, in particular, is likely in the areas that adjoin hedgerows and treelines associated with adjoining agricultural land<sup>19</sup>.

#### **5.3.1.2 Species**

Kildare 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 within the Wildlife (Amendment) Act 2000 (e.g., Opposite leaved Pondweed, Basil Thyme or 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., Otters, White-clawed Crayfish, Marsh Fritillary Butterfly) or Annex I of the EU Birds Directive (e.g., Golden Plover, Kingfisher) are also protected.

### **Flora**

In the semi-natural woodland at Silliothill, the ground flora species are dominated by ivy and moss, associated herbaceous species include soft shield fern, hart's tongue fern, hard fern, common dog violet, hairy violet, primrose, arum lily, scaly male fern, hogweed, common valerian, nettle, bluebell, twayblade, wild strawberry, yellow pimpernel, cowslip, germander speedwell, herb-bennet, herb-robert, enchanter's nightshade and wood dock. The woodland is reasonably undisturbed and supports badger sets and foxes. It is known locally as 'fox hollow'. The woodland in the semi-natural woodland area is formed on hazel and hawthorn dominated scrub with mature ash and yew growing in and around three disused quarries. The other wood species present include spindle, elm, dog rose, elder, blackthorn, sycamore, bramble, ivy, damson, raspberry and blackcurrant<sup>19</sup>.

Air pollutants are known to have played a role in the Europe-wide decline of tree-associated ectomycorrhizal fungi, both through a reduction in the trees' ability to photosynthesise and through changes in soil acidification and nitrogen accumulation. Similar, but less studied effects are considered probable for grasslands. The effect of increased nitrogen deposition on grasslands, such as the Curragh Plain grassland and its waxcap fungi has potential to result in reduced plant species richness and can cause grassland degradation and grassland ecosystem stability impacts<sup>22</sup>. A Conservation Management Plan has however, been commissioned for the Curragh by Kildare County Council and the Department of Defence which aims to sustainably manage and develop the Curragh Plains<sup>23</sup>.

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<sup>22</sup> Kang, F, Yang, B, Wujisiguleng, , et al (2020) Arbuscular mycorrhizal fungi alleviate the negative effect of nitrogen deposition on ecosystem functions in meadow grassland. *Land Degrad Dev.* 2020; 31: 748– 759. Available at: [Arbuscular mycorrhizal fungi alleviate the negative effect of nitrogen deposition on ecosystem functions in meadow grassland - Kang - 2020 - Land Degradation & Development - Wiley Online Library](#)

<sup>23</sup> KCC, DoD (2022) Project background - Curragh Conservation Management Plan. Available at: [Services 1 — The Curragh Plains](#)

The diverse wet grassland habitats in Kildare Town including the spring fed wetlands in the vicinity of the National Stud and Japanese Gardens, support abundant creeping bent, hard rush, soft rush and hairy sedge. Some other plants within this wet grassland habitat include creeping clover, jointed rush, silverweed, rye grass, Yorkshire fog, and willowherb species. Bryophyte cover has also been found to be high<sup>19</sup>.

Lastly, there are isolated ponds located near the north-west of Kildare Town, which have been identified as small mesotrophic ponds (FL4) by Tubridy & Associates (2007)<sup>19</sup>. These ponds are located in agricultural grassland fields, where some of the ponds have been fenced off in compliance with the Rural Environmental Protection Scheme (REPS). One pond in this area is completely vegetated and supports no visible open water. The plant species composition within the pond includes common fleabane, branched bur-reed, perennial ryegrass, gorse, floating sweet-grass, common rush, hawthorn, nettle, deer grass, grey willow, meadowsweet, creeping bent, bulrush, lesser spearwort and willowherbs<sup>19</sup>.

### ***Fauna***

Otters have strong populations in Kildare, particularly along the Barrow and the Liffey. The Tully is a tributary of the Barrow and so, Otters have been listed in this section, however, are likely to be less common than in the larger areas of the river Barrow water system. Otters are a protected species under European Union legislation mainly because numbers have declined sharply in other parts of Europe. The Irish population is therefore particularly important. Otters depend on healthy fish populations and the presence of suitable vegetation cover along the riverbank in which they make their burrows or 'holts'. Recording and studying the distribution and abundance of rare plants and animals is very important for monitoring the state of the environment and the impact, if any, of climate change.

The White-clawed Crayfish is regarded as a keystone species. In Ireland, it is found in large rivers (such as the River Barrow), small headwater tributaries and in lakes. The Tully is a tributary of the Barrow and so, white-clawed crayfish have been listed in this section, however, are likely to be less common than in the larger areas of the River Barrow water system. 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 and populations have not declined to the extent that they have in other parts of Europe.

The Marsh Fritillary butterfly is one of the most endangered species in Europe. It has been recorded at a number of sites in Kildare, mainly in areas of natural grassland that have been established on cutover peatlands.

Devil's-bit Scabious is the main food plant for the larval stage of the Marsh Fritillary. Efforts are being made by the Irish Peatland Conservation Council, the National Parks and Wildlife Service and Butterfly Conservation Ireland to study the Marsh Fritillary in Kildare in order to conserve this species for future generations.

#### ***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 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. The principal 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.

No tree preservation orders have been identified in the Plan area.

### 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 Arts, Heritage, Regional, Rural and Gaeltacht Affairs 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 DAHG 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 DEHLG due to their conservation value for birds of importance in the European Union.

There are no SACs or SPAs within the Plan boundary. However, there are a number of SAC and SPAs located in proximity to Kildare Town, as shown in Table 5.2.

**Table 5.2 SACs and SPAs in proximity to Kildare Town Source: (NPWS, 2022)<sup>24</sup>**

Site Name	Site Code
Ballynafagh Lake SAC	001387
Ballynafagh Bog SAC	000391
Mouds Bog SAC	002331
Red Bog, Kildare SAC	000397
Wicklow Mountains SAC	002122
Pollardstown Fen SAC	000396
Poulaphouca Reservoir SPA	004063
Wicklow Mountains SPA	004040

NHAs are designated due to their national conservation value for ecological and/or geological/geomorphological heritage. They cover nationally important semi-natural and natural habitats, landforms or geomorphological features, wildlife plant and animal species or a diversity of these natural attributes. NHAs are designated under the Wildlife (Amendment) Act 2000. Proposed NHAs were published on a non-statutory basis in 1995 but have not since been statutorily proposed or designated. There are no NHAs or pNHAs in the Plan area, however the Curragh is a proposed Natural Heritage Area (pNHA) located directly adjacent to the Kildare Town, along the eastern boundary of the Plan area (Site code 000392). Natura 2000 sites in close proximity to the Plan area have been illustrated in Figure A2 in Error! Reference source not found.. There are a number of other designated sites within proximity to Kildare Town, as displayed in Table 5.3.

**Table 5.3 NHAs and pNHAs in proximity to Kildare Town Source:24**

Site Name	Site Code
Ballynafagh Lake pNHA	001387
Ballynafagh Bog pNHA	000391

<sup>24</sup> NPWS (2022) Protected Sites in Ireland. Available at: [Protected Sites in Ireland | National Parks & Wildlife Service \(npws.ie\)](https://www.npws.ie/protected-sites)

Site Name	Site Code
Grand Canal pNHA	002104
Mouds Bog pNHA	000395
Curragh (Kildare) pNHA	000392
Newtown Marshes pNHA	001759
Pollardstown Fen pNHA	000396
Liffey Valley Meander Belt pNHA	000393
Liffey Bank Above Athgarvan	001396
Dunlavin Marshes	001772

All designated sites within 15km of the Plan area will be assessed in detail in the SEA and AA process.

A brief summary of each of the above designated sites is provided in Table 5.4 below. This text is taken from the National Parks and Wildlife Service's Site Synopses.

**Table 5.4 National Parks and Wildlife Service's Protected Site Synopses Source: <sup>24</sup>**

<b>Ballynafagh Lake SAC (001387)</b>
<p>Ballynafagh Lake is located about 2 km north-west of Prosperous in Co. Kildare. It is a shallow alkaline lake with some emergent vegetation. The Blackwood Feeder, which connects Ballynafagh Lake to the Grand Canal, is also included in the site. The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):</p> <p>[7230] Alkaline Fens  [1016] Desmoulin's Whorl Snail (<i>Vertigo moulinsiana</i>)  [1065] Marsh Fritillary (<i>Euphydryas aurinia</i>)</p>
<b>Ballynafagh Bog SAC (000391)</b>
<p>This site is a raised bog situated about 1 km west of Prosperous in Co. Kildare. The area is directly underlain by muddy, fossiliferous limestones, interbedded with calcareous shales. The subsoils are predominantly clay-rich tills. All are of low permeability. The site comprises a relatively small core of uncut high bog (approx. 70 ha), which is surrounded by a more extensive area of cutover bog (approx. 90 ha). The high bog area can be divided into a wet core of active bog which covers an area of 23 ha, surrounded by approximately 44 ha of degraded raised bog which is experiencing drying-out at present. The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U.</p> <p>Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):</p> <p>[7110] Raised Bog (Active)*  [7120] Degraded Raised Bog  [7150] Rhynchosporion Vegetation</p>
<b>Mouds Bog SAC (002331)</b>
<p>Mouds Bog is located about 3 km north-west of Newbridge in Co. Kildare, close to the Hill of Allen, and includes amongst others, the townlands of Grangehiggin, Barretstown and Hawkfield. The site comprises a raised bog that includes both areas of high bog and cutover bog.</p> <p>Much of the margins of the site are bounded by trackways. The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):</p> <p>[7110] Raised Bog (Active)*  [7120] Degraded Raised Bog  [7150] Rhynchosporion Vegetation</p>

<b>Red Bog, Kildare SAC (000397)</b>
<p>Red Bog, Kildare is located 3 km north of the village of Blessington in east Co. Kildare, close to the boundary with Co. Wicklow. It comprises a wetland complex of lake, fen and bog situated in a hollow between ridges of glacially-deposited material and underlain by rocks of Ordovician age. The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):</p> <p>[7140] Transition Mires</p>
<b>Wicklow Mountains SAC (002122)</b>
<p>Mouds Bog is located about 3 km north-west of Newbridge in Co. Kildare, close to the Hill of Allen, and includes amongst others, the townlands of Grangehiggin, Barretstown and Hawkfield. The site comprises a raised bog that includes both areas of high bog and cutover bog. Much of the margins of the site are bounded by trackways. The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):</p> <p>[7110] Raised Bog (Active)*  [7120] Degraded Raised Bog  [7150] Rhynchosporion Vegetation</p>
<b>Pollardstown Fen SAC (000396)</b>
<p>Pollardstown Fen is situated on the northern margin of the Curragh of Kildare, approximately 3 km north-west of Newbridge. It lies in a shallow depression, running in a north-west/south-east direction. About 40 springs provide a continuous supply of water to the fen. These rise chiefly at its margins, along distinct seepage areas of mineral ground above the fen level. The continual inflow of calcium-rich water from the Curragh, and from the limestone ground to the north, creates waterlogged conditions which lead to peat formation. There are layers of calcareous marl in this peat, reflecting inundation by calcium-rich water. This peat-marl deposit reaches some 6 m at its deepest point and is underlain by clay.</p> <p>The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):</p> <p>[7210] Cladium Fens*  [7220] Petrifying Springs* [7230] Alkaline Fens  [1013] Geyer's Whorl Snail (<i>Vertigo geyeri</i>) [1014] Narrow-mouthed Whorl Snail (<i>Vertigo angustior</i>)  [1016] Desmoulin's Whorl Snail (<i>Vertigo moulinsiana</i>)</p>
<b>Poulaphouca Reservoir SPA (004063)</b>
<p>Poulaphouca Reservoir SPA, located in the western foothills of the Wicklow Mountains, was created in 1944 by damming of the River Liffey for the purpose of generating electricity from hydropower. The reservoir covers an area of approximately 20 square kilometres and is the largest inland water body in the Mideast and south-east regions.</p> <p>The reservoir receives water from two main sources, the River Liffey at the northern end, and the Kings River at the southern end. The exit is into the River Liffey gorge at the western end. Underlying the reservoir are sands and gravels deposited during the last glaciation.</p> <p>The shores of the lake are mostly sandy. When water levels are low the exposed lake muds are colonised by an ephemeral flora of annual plant species. Wet grassland areas occur in sheltered bays around the lake but especially in the northern part. Reed Canary-grass (<i>Phalaris arundinacea</i>) is the main grass species present, but other plant species characteristic of wet grasslands occur, including Creeping Bent (<i>Agrostis stolonifera</i>), Meadowsweet (<i>Filipendula ulmaria</i>), Yellow Iris (<i>Iris pseudacorus</i>) and Water Mint (<i>Mentha aquatica</i>). Sedges (<i>Carex</i> spp.) are locally common, while Rusty Willow (<i>Salix cinerea</i> subsp. <i>oleifolia</i>) scrub is often found associated with the wet grassland.</p> <p>In some places the water washes against grassy banks which are generally less than a metre high, and in a few places there are steep sand and clay cliffs, up to 15 m high - these are remnants of the old River Liffey channel.</p> <p>In many places the banks are actively eroding, and a strip of conifers has been planted around much of the perimeter of the reservoir in an attempt to stabilize the banks. The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Greylag Goose and Lesser Blackbacked Gull.</p>
<b>Wicklow Mountains SPA (004040)</b>



This is an extensive upland site, comprising a substantial part of the Wicklow Mountains. Most of the site is in Co. Wicklow, but a small area lies in Co. Dublin. The underlying geology of the site is mainly of Leinster granites, flanked by Ordovician schists, mudstones and volcanics.

The area was subject to glaciation and features fine examples of glacial lakes, deep valleys and moraines. Most of site is over 300 m, with much ground being over 600 m; the highest peak is Lugnaquilla (925 m). The substrate over much of site is peat, with poor mineral soil occurring on the slopes and lower ground. Exposed rock and scree are features of the site. The predominant habitats present are blanket bog, heaths and upland grassland. The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Merlin and Peregrine.

## 5.4 Land and Soils

### 5.4.1 Baseline

According to the report ‘The Geological Heritage of Kildare’ (Geological Survey of Ireland (GSI), 2005), the predominant rock type in County Kildare is sedimentary rock, limestone of Carboniferous age in particular<sup>25</sup>.

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<sup>25</sup>.

Other soils identified in the Plan area include shallow and deep well drained minerals soils, typically grey, brown podzolic soil. It has a soil horizon of clay material, and the parent material is mainly limestone.

Fine loamy drift with limestones is commonly seen<sup>27</sup>. Soil in Kildare Town also sees patches of alluvium, in particular along the Tully tributary and in the south of Kildare Town.

Overall, the soil in this area is well suited for agriculture and forestry<sup>25</sup>. The bedrock geology of Kildare Town is classified as Visean limestone and calcareous shale and Tournaisian limestone according to GSI’s Bedrock Geology records<sup>27</sup>.

Refer to **Figure A3** in **Appendix A** for details of the soils in Kildare Town and **Figure A4** in **Appendix A** for bedrock geology in the vicinity of Kildare Town.

County Kildare is positioned at the forefront of geological heritage within Ireland. There is one site of Geological Heritage located within the Plan area namely, St. Bridget’s Well - Japanese Gardens<sup>25</sup>.

Refer to **Figure A5** in **Appendix A** for Geological Heritage in the vicinity of Kildare Town.

## 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

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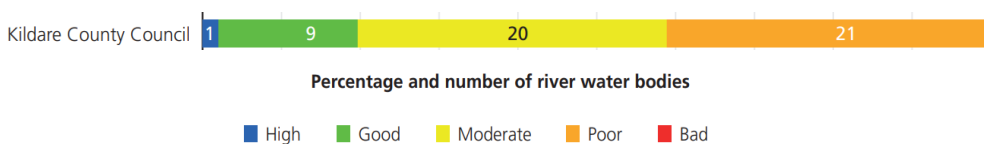
<sup>25</sup> Geological Survey of Ireland (GSI) (2005) The Geological Heritage of Kildare. Available at: [Geology of Kildare - Kildare County Council \(kildarecoco.ie\)](http://kildarecoco.ie)

Kildare falls within the Eastern River Basin District (ERBD), Kildare Town is located wholly in the South-eastern River Basin District (SERBD) (The Barrow Catchment).

As part of the implementation of the EU Water Framework Directive 2000/60/EC (WFD) a baseline risk assessment was completed of the water bodies within each River Basin District.

These assessments were made using water pollution indicators, point and diffuse pollution sources, water abstractions and detail on commercial activities. The risk assessment assigned a water quality status to each waterbody and indicated a risk status namely, whether the water body would meet the criteria for “good status” or would be considered “at risk” of not meeting the standards by 2015 or at least, by 2027.

The EPA Report ‘Water Quality in Ireland 2020’ has detailed a breakdown of river water quality (Q value) by Local Authority area for the 2017-2020 period and the figures for KCC area have been included in Figure 5.1 as taken from the EPA Report (EPA, 2020)<sup>26</sup>. This report displays that overall river water quality in Kildare is predominantly of ‘Poor’ – ‘Moderate’ quality, only 9% of river water quality has achieved the ‘Good’ in County Kildare and 1% achieving ‘High’ quality status<sup>26</sup>.



**Figure 5.1 River Water Quality for Kildare County Council area for the 2017-2020 period Source: <sup>26</sup>**

There are no ‘Nutrient Sensitive’ rivers identified in the Plan area. 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).

Kildare Town is situated in WFD Catchment 14, namely the Barrow (EPA, 2022)<sup>27</sup>. There are no rivers situated within the Plan area but the Tully River, a tributary of the River Barrow is situated to the south of the Plan boundary. An area of concern that was highlighted in the EPA Report<sup>26</sup> for the River Barrow overall, was its nitrate concentrations. Nitrates enter waterways through free draining soils to groundwaters where it can discharge to rivers and ultimately to our marine waters, mainly from agricultural waste both chemical and organic, amongst urban wastewater discharges. Thirteen catchments were assessed in the EPA report as areas of concern as they have elevated nitrogen concentrations and one of these catchments is the Barrow<sup>26</sup>.

The Barrow catchment includes the area drained by the River Barrow upstream of the River Nore confluence and all streams entering tidal water between the Barrow railway bridge at Great Island and Ringwood, Co. Kilkenny, draining a total area of 3,025km<sup>2</sup>. The largest urban centre in the catchment is Carlow, the other main urban centres in this catchment are New Ross, Graiguenamanagh, Athy, Portlaoise, Mountmellick, Portarlington, Monasterevin and Kildare<sup>27</sup>.

The Water Framework Directive (WFD) Status for Rivers within the Plan area are shown in Figure A7 in Error! Reference source not found. for 2013-2018. The WFD River Risk Status is shown in Figure A8 in Error! Reference source not found.. The EPA River Network is outlined in relation to the Plan area in Figure A6 in Error! Reference source not found..

### 5.5.1.2 Hydrogeology

The Barrow catchment, of which Kildare Town is situated within, is underlain in its flat northern area by limestones of varying purity which continue down the western side of the catchment. On the eastern side of the catchment, granites dominate, culminating in the summits of the Blackstairs Mountains<sup>27</sup>.

Ground Waterbody WFD Status from 2013-2018 for the area of Kildare Town has been assessed by the EPA as overall ‘Good Quality’. No other waterbodies can be found in the Plan area of Kildare Town<sup>27</sup>.

<sup>26</sup> EPA (2020) Water Quality in Ireland 2020. Available at: [EPA Water Quality 2020 indicators-report.pdf](#)

<sup>27</sup> EPA (2022) EPA water catchments interactive map. Available at: [EPA Water Quality 2020 indicators-report.pdf](#)

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’<sup>27</sup>. Geological Survey Ireland (GSI) has recorded bedrock aquifers in Kildare Town as having ‘Regionally Important Aquifers - Karstified (diffuse)’ and ‘Locally Important Aquifers’ that include bedrock which is moderately productive only in Local Zones<sup>27</sup>.

Gravel aquifers in the area have been recorded by GSI as having ‘Regionally important gravel aquifer’ across the LAP area. The vulnerability of hydrogeology for the underlying area of Kildare Town has been recorded by GSI as being an area of ‘High Vulnerability’<sup>27</sup>.

Groundwater Body Quality Status in the vicinity of the Plan area is shown in Figure A9 in **Error! Reference source not found.** and Groundwater Vulnerability is shown on Figure A10 in **Error! Reference source not found.**

Protected Drinking Water (Ground Water) is shown in Figure A11 in Error! Reference source not found.. Groundwater Features and Public Supply Source Protection Zones are also shown in Figure A12 in **Error! Reference source not found.**

### 5.5.1.3 *Flooding*

KCC is part of the Eastern Catchment Flood Risk Assessment and Management (CFRAM) Study. The draft Plan will take into consideration the CFRAMs programme during the lifetime of the Plan.

Flood maps, at present have not been prepared by the Office of Public Works (OPW) for Kildare Town, Kildare Town is an area that over previous years has seen less flood events than other areas of County Kildare, as there are no major water bodies located within the town boundary. The area is, however, vulnerable to adverse effects from changes in the frequency and severity of rainfall events. It was recorded by the OPW that there has been a recurring past flood event in the area (OPW, 2022)<sup>28</sup>. This flood event was located in a low-lying area to the north of the town, which floods every year according to a meeting held with KCC’s Area Engineer, Supervisor and Search Manager for ESBI (OPW Flood Hazard Mapping – Phase 1, 2005)<sup>29</sup>. In this case particularly the flooding is said to be likely as a result of a significant portion of the surface water drainage in Kildare Town being piped to this location<sup>29</sup>. A Strategic Flood Risk Assessment (SFRA) has been prepared for the draft Plan, as well as a Surface Water Study, refer to both for further information.

## 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, 2011 (S.I. No. 180 of 2011). 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

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<sup>28</sup> OPW (2022) Flood Maps. Available at: [Flood Maps - Floodinfo.ie](https://www.floodinfo.ie)

<sup>29</sup> KCC and ESBI (2005) Meeting: OPW Flood Hazard Mapping – Phase 1. Location: Kildare. Meeting minutes available at: [Meeting with Henry Hill Area Engineer for Ballaghaderreen 01/12/04](#)

- Zone D: Rural Ireland which is the remainder of the State excluding Zones A, B and C.

Kildare Town is located in Zone D. The Air quality in Zone D as reported in the EPA 2021 report ‘Air Quality in Ireland 2021’ is summarised in Table 5.5 below.

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 5.5 Air Quality Assessment Zone D Concentrations 2021 compared to Air Quality Standards**

Parameter	Zone	Average measured concentration (µg/m <sup>3</sup> )	Air quality standard (µg/m <sup>3</sup> )
NO <sub>2</sub>	Zone D	7.5	40
SO <sub>2</sub>	Zone D	3.5	20
CO	Zone D	0.3	10
Ozone	Zone D	60.2	120
PM <sub>10</sub>	Zone D	11.6	40
PM <sub>2.5</sub>	Zone D	8.7	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) for County Kildare in 2019. This Noise Action Plan primarily considers 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. In County Kildare there are no major agglomerations or major airports subject to noise mapping or action planning.

Strategic Noise Maps have been prepared for all roads deemed to fall within the threshold of 3 million vehicles a year. The total length of identified major roads included within the strategic noise mapping in County Kildare was 258 km which amounts to 10.2% of the total road network which is relatively large compared to other counties. This broke down into 157 km of motorways and national roads, 94.4 km of regional roads and 6.4 km of local road.

The Noise Action Plan addressed a number of sections of major roadway that are located either within, or immediately adjacent to Kildare Town 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<sub>den</sub> 55 dB(A) and L<sub>night</sub> 50 dB(A). Major roads in Kildare Town which qualified for noise mapping are detailed in Table 5.6.

**Table 5.6 Major Roads in Kildare Town which qualify for Noise Mapping**

Road Type	Description
National Roads	M7 between Curragh Farm and Loughlion
Regional Roads	R445, R413, R415

The plan concludes that there are an estimated 745 people in Kildare above the  $L_{den}$  threshold for noise from road traffic sources, and an estimated 5,185 people above the  $L_{night}$  threshold from road traffic sources.

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 in managing environmental noise in the area 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 has developed a detailed Programme of Works for the duration of the Noise Action Plan (2019 to 2023) and proposed to implement the programme subject to the availability of the requisite technical staff, expertise and financial resources.

### 5.6.1.3 Climate

The existing climate for Kildare Town 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, average annual temperature is about 9°C and the mean annual wind speed is at approximately 4 m/sec in the east midlands (Met Eireann, 2022)<sup>30</sup>.

Average rainfall varies between about 800mm and 2800mm. Rainfall accumulation tends to be highest in winter and lowest in early summer<sup>30</sup>.

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. 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.

According to Met Eireann, 2016 was the warmest year since 2006, and the last 10 years have been the warmest decade. There is some evidence of a reduction in annual average wind speeds, with a corresponding decrease in the frequency of high wind speeds and gusts. Increases in total annual rainfall in parts of the west and north have been observed, with some increase in the number of days with heavier rain but there is no clear pattern of change in other areas<sup>30</sup>.

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.

<sup>30</sup> Met Eireann (2022) Climate of Ireland. Available at: [Climate of Ireland - Met Éireann - The Irish Meteorological Service](#)

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 plan outlines investments needed and financing tools available. 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)<sup>31</sup>.

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 & 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;
- At least 32.5% improvement in energy efficiency.

The 40% greenhouse gas target is implemented by the EU Emissions Trading System, 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)<sup>32</sup>.

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<sup>31</sup> EC (2019) European Green Deal. Available at: [A European Green Deal | European Commission \(europa.eu\)](#)

<sup>32</sup> EC (2014) The 2030 climate and energy framework. Available at: [The 2030 climate and energy framework - Consilium \(europa.eu\)](#)

### ***Climate Action Plan 2023***

Climate Action Plan (CAP) 2023 is the second annual update to Ireland’s Climate Action Plan 2019. It is the first to be prepared under the Climate Action and Low Carbon Development (Amendment) Act 2021, and following the introduction, in 2022, of economy-wide carbon budgets and sectoral emissions ceilings.

The CAP 2023 implements the carbon budgets and sectoral emissions ceilings and sets a roadmap for taking decisive action for Ireland to halve emissions by 2030 and reach net zero no later than 2050, as Ireland committed to in the Programme for Government.

The current and future action of this plan includes:

- Ireland is committed to achieving a 51% reduction in GHG emissions from 2021 to 2030;
- To achieving net-zero emissions no later than 2050, with legally binding requirements to achieve these objectives set out in legislation;
- European Green Deal commits to delivering net-zero GHG emissions at EU level by 2050; and
- The international community must step up its efforts towards meeting the 2015 Paris Agreement and the UN’s Sustainable Development Goals

Following the Climate Action Plans 2019 and 2021, Climate Action Plan 2023 sets out the roadmap to deliver on Ireland’s climate ambition as it aligns with the legally binding economy-wide carbon budgets and sectoral ceilings that were agreed by Government in July 2022<sup>33</sup>.

## **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.

Kildare County Council published the Kildare County Heritage Plan 2019-2025 in 2019. The aim of the 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 Heritage Plan sets out a range of strategic objectives and aims to be implemented over the plan period. The strategic objectives and aims of the Heritage Plan will be taken into consideration in the preparation of the draft Plan.

The built heritage of Kildare 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.

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<sup>33</sup> Government of Ireland (2023) Climate Action Plan 2023. Available at: [1c20a481-bb51-42d6-9bb9-08b9f728e4b5.pdf](https://www.gov.ie/publications/uploads/system/uploads/attachment_data/file/371221/c20a481-bb51-42d6-9bb9-08b9f728e4b5.pdf) (www.gov.ie)

The National Monuments Service of the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs 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 43 Recorded Monuments within the Plan area (National Monuments Service, 1995)<sup>34</sup>. National Monuments within and surrounding the Plan area have been illustrated in Figure A13 in Error! Reference source not found..

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 Arts, Heritage, Regional, Rural and Gaeltacht Affairs two months' notice in writing.

#### *5.7.1.2 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 Arts, Heritage, Regional, Rural and Gaeltacht Affairs 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 Arts, Heritage, Regional, Rural and Gaeltacht Affairs to the planning authorities for the inclusion of particular structures in their Record of Protected Structures (RPS).

Kildare Town 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 39 protected structures in Kildare Town and one proposed protected structure on the Kildare County Development Plan 2023-2029. 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)<sup>35</sup>. Protected Structures as outlined in the National Inventory of Architectural Heritage have been illustrated in Figure A14 in Error! Reference source not found..

#### *5.7.1.3 Vernacular Heritage*

Vernacular architecture describes the local regional traditional building forms and types using indigenous materials, and without any 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 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.

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<sup>34</sup> National Monuments Service (1995) Record of Monuments and Places – Archaeology Kildare. Available at: [Archaeology-RMP-Kildare-Manual-\(1996\)-0020.pdf](#)

<sup>35</sup> National Inventory of Architectural Heritage (2022) Kildare Town. 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](https://www.buildingsofireland.ie/buildings-search/?query=&location_type=building&county=KD&town=Kildare&street=&group=&type=&date_from=&date_to=&search_page=1)



## 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 foot-hills 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 Kildare Town LAP area is located in the mid-eastern part of County Kildare. A Landscape Character Assessment (LCA) of the county was prepared as part of the Kildare County Development Plan.

The LCA 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 this document was to assist in the development of the landscape objectives for the County Development Plan.

The county is divided into 15 geographically specific Landscape Character Areas (LCAs). The LCA of interest is Central Undulating Lands. The LCAs surrounding the Plan area include the Curragh, the Southern Lowlands, Chair of Kildare and Pollardstown Fen (KCC, 2022)<sup>36</sup>.

In order to inform the Landscape Character Assessment, 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 development<sup>36</sup>. The sensitivity of the Landscape Character Areas that Kildare Town covers and is surrounded by have been listed in Table 5.7, as adapted from Table 13.1 in (KCC, 2023)<sup>36</sup>.

**Table 5.7 Sensitivity of Landscape Character Areas that Kildare Town covers and surrounds Source:<sup>36</sup>**

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
Central Undulating Lands	Class 1				
Southern Lowlands	Class 1				
<b>Sub-ordinate Landscape Areas</b>					
The Curragh					Class 5
Chair of Kildare				Class 4	
Pollardstown Fen					Class 5

<sup>36</sup> KCC (2023) Kildare County Development Plan – Chapter 13 Landscape, Recreation and Amenity. Available at: [13 - Landscape, Recreation & Amenity | Kildare County Council \(kildarecoco.ie\)](#)

The sensitivity of the Central Undulating Lands and the Southern 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 Curragh and Pollardstown Fen are deemed ‘Unique Sensitivity’ which is defined as ‘areas with low capacity to accommodate uses without significant adverse effects on the appearance or character of the landscape having regard to special sensitivity factors’. The Chair of Kildare is deemed as ‘Special Sensitivity’ which is defined as ‘Significant adverse effects on the appearance or character of the landscape having regard to prevalent sensitivity factors’<sup>36</sup>.

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 Plan area is discontinuous urban fabric, and pastures (Pan Europe, 2018)<sup>37</sup>.

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 A15 in **Error! Reference source not found.** for CORINE Landcover Data in the vicinity of Kildare Town.

### 5.8.1.2 Visual

Scenic routes and protected views consist of important and valued views and prospects within the county. The Kildare County Development Plan outlines all the views and prospects in the County which have been identified as being worthy of protection.

There are three scenic routes located within the plan boundary, these include:

- Views to and from Dunmurry Hill and Red Hill and views of the Central Kildare Plains and Boglands on the R401 and adjoining roads from Thomastown crossroads to the Kildare Town boundary. Locations including: Thomastown west, Guidenstown south, Grangeclare, Killeagh commons, Redhills, Rahilla Glebe, Kildare town, Crockanure Glebe and Southgreen<sup>36</sup>.
- Views of the Curragh Plains: Little Curragh, a county road, the L7034, the L3006 and the L6075, from the Kildare Town boundary to Donnelly's Hollow and the R413 from Donnelly's Hollow to the Kildare Town boundary. Locations including: Curraghfarm, Strawhall, Curragh, Little Curragh<sup>36</sup>.
- Views across Curragh Plains, north and south, along R445, from the junction of R413/R445 to Colgan's Cut. Location: Curragh.

No Scenic Viewpoints or Hilltop Views have been identified in the Plan area. The Protected Prospects of the Plan area have been illustrated in Figure A16 in **Error! Reference source not found.**

## 5.9 Material Assets

### 5.9.1 Baseline

The term ‘Material Assets’ refers to all infrastructure and local services including; transportation, water supply, wastewater treatment and discharge, waste management services, electricity supply, telecommunications etc. A summary of all material assets in Kildare Town will be provided in the Environmental Report.

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<sup>37</sup> Pan Europe (2018) Corinne Land Cover CLC 2018. Available at: [CLC 2018 — Copernicus Land Monitoring Service](#)

### 5.9.1.1 Water Supply

The provision of an adequate supply of water and wastewater treatment facilities is critical to facilitate and sustain the growth of Kildare Town over the lifetime of the draft Plan and beyond.

Uisce Eireann (formerly Irish Water) is responsible for all aspects of public water services planning, delivery and operation.

Kildare County Council, as an agent of Uisce Eireann continues to provide certain water services functions for County Kildare (KCC, 2022)<sup>38</sup>. According to Chapter 6 of the Kildare County Development Plan (2023-2029), the policies and objectives that Kildare Town LAP will underpin, include:

- Policies and objectives consistent with the NPF, relating to water
- The sustainable management of waste generation;
- Enhancing water quality and resource management; and
- Ensuring the efficient use of water resources<sup>38</sup>.

Policies and objectives consistent with the RSES, relating to water include:

- Proposals to ensure the efficient and sustainable use of water resources;
- Addressing water leakage;
- The facilitation of strategic wastewater treatment infrastructure;
- Addressing areas at risk of flooding, and
- The integration of sustainable water management solutions<sup>38</sup>.

In doing so, the Kildare County Development Plan and the draft Plan will continue to align with both the National Planning Framework and the Regional Spatial and Economic Strategy in that the provision of water and or wastewater services will not be a limiting factor in terms of targeted growth<sup>38</sup>.

The majority of the water supplied in Co. Kildare comes from the Dublin City Waterworks at Ballymore Eustace. Kildare Town is supplied by both the Srowland Wastewater Treatment Plant, via Old Kilcullen Reservoir and Rathangan Wellfields, via Redhill reservoir.

A National Leakage Reduction Programme is set to be put in place for Kildare Town whereby, Uisce Eireann will replace ageing water mains and provide new service connections for customers in Kildare Town in order to reduce leakage, improve water quality and ensure a safer more secure supply of water throughout the Town (Irish Water, 2022)<sup>39</sup>.

Uisce Eireann is working in partnership with KCC to replace ageing back yard water mains and provide new water service connections to customers in Kildare Town. The water mains renewal works are being carried out in Kildare Town as part of Irish Water's national Leakage Reduction Programme<sup>39</sup>.

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 Irish Water to take corrective action. The EPA has instructed Uisce Eireann 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 Wellfields and Srowland

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<sup>38</sup> KCC (2023) Kildare County Development Plan 2023-2029 – Chapter 6. Available at: [Ch 6 final.pdf \(kildarecoco.ie\)](#)

<sup>39</sup> Irish Water (2022) Kildare Town Backyard Services: National Leakage Reduction Programme. Available at: [Kildare Town Backyard Services | Our Projects | Irish Water](#)

drinking water supply which serves Kildare Town was not included on the Remedial Action list for Q4 of 2021 (EPA, 2021)<sup>40</sup>.

### 5.9.1.2 Wastewater Treatment

Kildare Town's wastewater is served within Kildare Town Wastewater Treatment Plant (WWTP) which is located South of the M7 Kildare Bypass.

This wastewater treatment facility holds a current loading of approximately 11,000 PE and has a total capacity for 17,000 PE (KCC, 2022).<sup>41</sup>

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 meet the requirements of the WFD. The Kildare Town WWTP is compliant with all wastewater regulations and treatment standards (EC, 2017)<sup>42</sup>.

After the upgrade of the Kildare Wastewater Treatment Plant, the Kildare Town Sewerage Scheme was put in place for Kildare Town. Investments of €4.2 million are set to enable a capacity upgrade for the Kildare Town sewer network, in aims to upgrade the sewer networks to the same standard as the Kildare WWTP. The upgrade of both will serve and allow for the sustainable development of its residential and commercial sectors in the Plan area (Irish Water, 2022)<sup>43</sup>.

### 5.9.1.3 Transport Infrastructure and Facilities

Over recent decades Kildare Town has seen steady growth in its population, the population has doubled since the early 1990s; leading to the spread of housing estates along arterial routes, particularly surrounding the town centre. This rapid expansion 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, AECOM in collaboration with KCC have developed the Kildare Town Transport Strategy (KTTS) to support the preparation of the draft Plan and improve local transportation amongst all areas of Kildare Town. The modes of transport addressed in the Strategy include; bus, train, walking, cycling, parking and roads (AECOM, 2021)<sup>44</sup>.

The aim of the KTTS is to ensure long-lasting transport improvements in Kildare Town to ensure growing use of sustainable travel modes for work, education, business, and visitor trips. The KTTS presents the current transport situation in Kildare Town and outlines the impact of future proposed land developments on transportation, whilst also outlining possible solutions to improve conditions of active, private and public transport. This Strategy contains objectives for five transport modes/issues:

- Public transport;
- Road; cycling;
- Walking; and
- Parking<sup>44</sup>.

Across these five areas there are 25 objectives, some of which include:

- *'Provide an integrated walking network for Kildare Town'*

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<sup>40</sup> EPA (2021) Remedial Action List. Available at: [remedial action list epa - Search \(bing.com\)](#)

<sup>41</sup> KCC Senior Engineer (2022). Available: Kildare County Council

<sup>42</sup> EC (2017) Urban Wastewater Kildare WWTP. Available at: [Kildare town wastewater treatment plant - history | European Commission urban waste water website: Ireland \(uwwtd.eu\)](#)

<sup>43</sup> Irish Water (2022) Kildare Town Sewerage Scheme. Available at: [Kildare Town Sewerage Scheme | Our Projects | Irish Water](#)

<sup>44</sup> AECOM (2021) Draft Kildare Town Transport Strategy. Available at: [PowerPoint Presentation \(kildarecoco.ie\)](#)

- ‘Reduce unnecessary vehicular trips through Kildare Town’
- ‘To ensure appropriate provision and location of car parking to support and improve the economic vitality of the town centre’<sup>44</sup>.

The KTTS studies the transport network within the town of Kildare to present supportive analysis which will aid provision of an evidence-based approach to the preparation of the Draft Plan. The strategy examines potential objectives that may be included as objectives in the Kildare Plan and in some instances includes a high level Multi Criteria Analysis (MCA) which details options at a very high level<sup>44</sup>.

At present, the R445 Newbridge Road/Monasterevin Road is the main east-west access road through Kildare town. The main north-south route is the R415. The R401 links in with the R415 to provide further north-south movements. The R413 diverges from the R445 just west of Newbridge and goes around the Curragh to the north, entering Kildare Town to the northeast and joining the R415 in the middle of the town. The opening of the M7 Motorway has taken significant volumes of through traffic out of Kildare Town Centre. Kildare Town is served by several bus services and Kildare Train Station is on a main line between Dublin and the south of the country. The town centre has a large walking catchment area, however only 34% of residences are within 1km of the town centre as many buildings are on the periphery of the settlement beyond the 1km radius. Kildare residents are highly car dependent. The 2016 census found that 74.1% of commuters travelled by private motor vehicle. Public transport use contributed to just 11.6% of work trips. Active modes of travel constituted 12.7% (11% walking; 1.7% cycling). Until recently, there was very little cycling infrastructure in the area, until the recently constructed link road between Southgreen Road and the R410/Dunmurry Road comprised of a combination of cycle track, cycle lane and shared pedestrian and cycle sections.

#### 5.9.1.4 Waste Management

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:

- AES;
- Mahon’s Recycling;
- Oxigen;
- Ray Whelan; and
- Thorntons.

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 LAP boundary.

## 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 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 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 Plan can be assessed. If complied with in full, SEOs would result in an environmentally positive, or neutral impact from realisation of the Plan . The SEOs are set out under a range of topics and are used as standards against which the provisions of the Plan 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 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 Plan 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 Plan , as well identifying targets which the Plan can help work towards. Strategic Environmental Objectives and Targets for the draft LAP have been listed in Table 6.1.

## **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 Plan .
- Being used in a monitoring programme.
- Providing an early warning of significant unforeseen adverse effects.
- Prioritising key environmental effects.
- Ensuring the number and range of environmental indicators are manageable in terms of time and resources.

Consequently, a range of Environmental Indicators required to assess the level of impact on the environment are also outlined in Table 6.1.

**Table 6.1 Strategic Environmental Objectives and Targets for the draft LAP**

Draft Objectives	Draft Targets	Draft Indicators
<b>Biodiversity</b>		
<p>Protect, conserve, enhance where possible and avoid loss of diversity and integrity of the broad range of habitats, species and wildlife corridors.</p> <p>To ensure no biodiversity net loss will occur as a result of development in the Plan area.</p> <p>Promotion of biodiversity net gain.</p> <p>To minimise and, where possible, eliminate habitat loss in the Plan area.</p>	<ul style="list-style-type: none"> <li>• Siting of development of infrastructure installation on non-sensitive sites;</li> <li>• Maintenance of favourable conservation status for all habitats and species protected under the Habitat Directive;</li> <li>• No ecological networks or parts thereof which provide significant connectivity between areas of local biodiversity to be lost without remediation (e.g., semi-natural grasslands, semi-natural woodland at Silliothill and wet grassland associated with the margins of the Tully River, Japanese Gardens and National Stud etc.);</li> <li>• Ensure no increase in nitrogen deposition in areas of ecological sensitivity;</li> <li>• Improve and or maintain protection for important wildlife sites, particularly urban wildlife corridors;</li> <li>• Improve access for the appreciation and promotion of wildlife;</li> <li>• To ensure impacts that have potential to impact on biodiversity, from any development are balanced or outweighed by measures taken to avoid and minimise the impacts, to restore affected areas and offset the residual impacts, so that no loss remains;</li> <li>• To quantify biodiversity net loss and net gain net gain in the Plan area;</li> <li>• No loss of habitat during the lifetime of the draft Plan; and</li> <li>• No increase in nitrogen deposition in the Plan area.</li> </ul>	<ul style="list-style-type: none"> <li>• Number and condition of Natura 2000 network, European Sites, as per Article 17 Reports, and the maintenance of conservation objectives.</li> <li>• Achievement of favourable conservation status of Designated Sites.</li> <li>• Population and range of Designated Species.</li> <li>• Achievement of the Objectives of Kildare’s Biodiversity Plan and Kildare County Development Plan.</li> <li>• Level of baseline biodiversity conditions in the Plan area to post-development conditions, particularly but not limited to, quantifying and monitoring the area of hedgerow, native woodland, semi-natural grassland, peat based and/or heath habitat loss within the lifetime of the Plan .</li> </ul>
<p>To achieve the conservation objectives of European Sites (SACs and SPAs) and other sites of nature conservation.</p> <p>Conserve and protect other sites of nature conservation including NHAs, pNHAs, National Parks, Nature Reserves, Wildfowl Sanctuaries as well as protected species outside these areas as covered by the Wildlife Act.</p>	<ul style="list-style-type: none"> <li>• No loss of protected habitats and species during the lifetime of the draft Plan;</li> <li>• No compromise or impact on the achievement of the favourable conservation condition objectives (whether maintain or restore) of European sites; and</li> <li>• Submission of Screening Report or Natura Impact Statement for proposed developments with planning applications in/and/or near European Sites.</li> </ul>	<ul style="list-style-type: none"> <li>• Status of Annex 1 habitats and species as per Article 17 Reports.</li> <li>• Level of habitat creation, habitat removal, habitat fragmentation within the Plan boundary.</li> <li>• Achievement of favourable conservation status of designated sites located within the Plan boundary.</li> <li>• Population and range of Protected and Red List Species within the Plan boundary.</li> </ul>
<p>To minimise and, where possible, eliminate threats to biodiversity including invasive species.</p>	<ul style="list-style-type: none"> <li>• Prevent the introduction of new invasive or alien species e.g., Japanese;</li> <li>• Japanese Knotwood and Giant Rhubarb; and</li> <li>• Control/manage/eradicate invasive species.</li> </ul>	<ul style="list-style-type: none"> <li>• Achievement of the Objectives of the National Biodiversity Action Plan and Kildare’s Biodiversity Action Plan.</li> <li>• Status of water quality in the country’s water bodies (WFD).</li> <li>• Number of incidences of invasive species, eutrophication and or water pollution.</li> </ul>

Draft Objectives	Draft Targets	Draft Indicators
		<ul style="list-style-type: none"> <li>Protected Freshwater Species</li> <li>Protected Bird Species - BOCCI</li> </ul>
Promote green infrastructure networks, including riparian zones and wildlife corridors	<ul style="list-style-type: none"> <li>Ensure new development is set back from rivers or tributaries.</li> </ul>	<ul style="list-style-type: none"> <li>Location and scale of new development arising as a result of the Plan.</li> <li>The number of provisions of green/blue infrastructure within the Plan boundary.</li> </ul>
<b>Population and Human Health</b>		
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.	<ul style="list-style-type: none"> <li>Minimise population exposure to high levels of noise, vibration and air pollution;</li> <li>No spatial concentrations of health problems arising from environmental factors;</li> <li>Improve access to recreation opportunities;</li> <li>Increase in the number of green spaces and amenities available to the public;</li> <li>Increase modal shift to public transport;</li> <li>Co-ordinate land use and transportation policies; and</li> <li>No significant deterioration in human health as a result of environmental factors.</li> </ul>	<ul style="list-style-type: none"> <li>Changes in trends in perceived health status within the Plan boundary.</li> <li>Changes in census population statistics within Kildare Town.</li> <li>Rates of unemployment per area.</li> <li>Statistics on access to sustainable modes of transport.</li> <li>Percentage increase in housing (number and type).</li> <li>Number of compliances of wastewater infrastructure to legislation/regulations/conditions for relevant licences, permits etc. for discharges.</li> <li>Number of compliances of water supply schemes with relevant legislation/regulation/conditions for abstraction and consumption.</li> <li>Number of compliances of infrastructure projects to relevant legislation/regulation/conditions re - noise, odour and/or air quality.</li> <li>Number of compliances of waste management sites.</li> <li>Implementation of the Noise Action Plan and relevant limit values.</li> </ul>
To protect human health from hazards or nuisances arising from incompatible land uses/developments.	<ul style="list-style-type: none"> <li>No spatial concentrations of health problems arising from environmental factors; and</li> <li>Minimise population exposure to high levels of noise, vibration and air pollution.</li> </ul>	<ul style="list-style-type: none"> <li>Number of new and or improved recreational facilities and or routes related to the new Plan .</li> <li>Number of people utilising recreational areas within the LAP boundary.</li> <li>Number of public rights of way lost through the LAP boundary.</li> <li>Number and scale of new development arising as a result of the new Plan.</li> </ul>
Provision of green spaces for amenity and recreational uses.	<ul style="list-style-type: none"> <li>Increase in the number of green spaces and amenities available to the public.</li> </ul>	<ul style="list-style-type: none"> <li>Economic growth statistics within the Plan boundary.</li> <li>Rates of unemployment in Kildare Town.</li> <li>Rates of employment in Kildare Town.</li> </ul>



Draft Objectives	Draft Targets	Draft Indicators
<b>Land &amp; Soil</b>		
Protect quality and quantity of existing Land and Soil.	<ul style="list-style-type: none"> <li>No incidences of soil contamination;</li> <li>Prevent pollution of soil through adoption of appropriate environmental protection procedures during construction and maintenance works on site;</li> <li>Ensure polluting substances are appropriately stored and banded; and</li> <li>Ensure appropriate management of existing contaminated soil in accordance with the requirements of current waste legislation.</li> </ul>	<ul style="list-style-type: none"> <li>Incidences of soil contamination.</li> <li>Erosion and sedimentation rates of soils within the Plan boundary.</li> <li>Nitrogen deposition rates.</li> <li>Number and condition of designated geological features</li> </ul>
To maximise the sustainable re-use of the existing built environment, derelict, disused and infill sites (brownfield sites), rather than greenfield sites	<ul style="list-style-type: none"> <li>Preference for development on brownfield site over greenfield; and</li> <li>Limited and controlled development of greenfield sites.</li> </ul>	<ul style="list-style-type: none"> <li>Rates of brownfield site and contaminated land reuse and development.</li> <li>Rates of greenfield development.</li> </ul>
Minimise the amount of waste to landfill from site	<ul style="list-style-type: none"> <li>Minimise the consumption of non-renewable sand, gravel and rock deposits;</li> <li>Re-use of soil from redeveloped sites where possible;</li> <li>Reduction in the quantities of waste sent to landfill;</li> <li>Increase in the quantities of waste sent for recycling;</li> <li>Increase in the number of bring banks in the Plan area; and</li> <li>Compliance with the Eastern Midland Region Waste Management Plan 2015-2021 (or any subsequent plan).</li> </ul>	<ul style="list-style-type: none"> <li>Rates of re-use/recycling of construction waste.</li> <li>Quantity of waste sent to landfill within the Plan boundary.</li> <li>Number of bring banks in the Plan area.</li> <li>Achievement of the Objectives of the Eastern Midlands Region Waste Management Plan 2015-2021 (or any subsequent plan).</li> </ul>
Conserve, protect and avoid loss of integrity of designated geological features,	<ul style="list-style-type: none"> <li>No loss of integrity of geological features; and</li> <li>Designation of sites as County Geological Sites.</li> </ul>	<ul style="list-style-type: none"> <li>Number and condition of designated geological features.</li> <li>Number of new developments in proximity to designated geological site.</li> </ul>
<b>Water Resources</b>		
Improve/maintain water quality and the management of watercourses to comply with the standards of the Water Framework Directive and incorporate the objectives of the Floods Directive into sustainable planning and development.	<ul style="list-style-type: none"> <li>Support the achievement of “good” ecological and chemical status/potential of waterbodies by 2015 or by 2027 latest, in accordance with the Water Framework Directive, in particular to Kildare Town, the Tully River as it is a tributary of the River Barrow;</li> </ul>	<ul style="list-style-type: none"> <li>Proportion of water bodies in the Plan boundary meeting their WFD Ecological Status objectives, as reported by the EPA Water Monitoring Programme for the WFD.</li> <li>The number of waterbodies within the Plan boundary that have deteriorated in ecological status or chemical status.</li> <li>Status of aquatic habitats and species within the Plan boundary, particularly the status of the Curragh Aquifer.</li> </ul>

Draft Objectives	Draft Targets	Draft Indicators
	<ul style="list-style-type: none"> <li>Promote sustainable drainage practices to improve water quality and flow in the Plan area. In doing so, also ensuring that no negative impacts are likely to result on aquatic bodies in the Plan area, particularly the Curragh Aquifer and its vulnerability status; and</li> <li>Minimise flood risk through appropriate management of flood vulnerable zones.</li> </ul>	<ul style="list-style-type: none"> <li>Compliance of surface waters with national and international standards.</li> <li>Compliance with the recommendations outlined in the Kildare Town Surface Water Management Study.</li> </ul>
Implement appropriate nature based sustainable drainage systems (SuDS) in the area	<ul style="list-style-type: none"> <li>New drainage systems to compliant with SuDS, prioritising nature-based solutions.</li> </ul>	<ul style="list-style-type: none"> <li>Number and location of nature-based solutions incorporated into the Plan boundary.</li> </ul>
Reduce the impact of polluting substances to all waters and prevent pollution and contamination of ground water by adhering to aquifer protection plans and to maintain and improve the quality of drinking water supplies.	<ul style="list-style-type: none"> <li>Improvement or at least no deterioration in surface and ground waters.</li> </ul>	<ul style="list-style-type: none"> <li>Achievement of the Objectives of the River Basin Management Plan.</li> <li>Compliance of surface and ground waters with national and international standards</li> </ul>
Protect flood plains and areas of flood risk from development through avoidance, mitigation and adaptation measures.	<ul style="list-style-type: none"> <li>Minimisation of flood risk within the LAP area, reduced flood events.</li> </ul>	<ul style="list-style-type: none"> <li>Number of past flood risk events within the Plan boundary.</li> <li>Annual costs of damage related to flood events within the Plan area.</li> </ul>
<b>Air, Noise &amp; Climate</b>		
Maintain and promote continuing environmental improvement where possible of emissions to air (including noise emissions).	<ul style="list-style-type: none"> <li>Minimise air and noise emissions during construction and operation of new developments;</li> <li>Promote minimisation of greenhouse gas emissions to the atmosphere;</li> <li>Ensure no increase in nitrogen deposition in areas of ecological sensitivity;</li> <li>Minimise air and noise emissions during construction and operation of new developments; and</li> <li>Achieve a reduction in greenhouse gas emissions.</li> </ul>	<ul style="list-style-type: none"> <li>Air Quality Monitoring Result in Ireland, both national and region-specific air emission data.</li> <li>Compliance with EPA emission limits for sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter at industrial sites.</li> <li>Number of compliances with EPA emission limits for sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter.</li> <li>Number of compliances with existing legislation/regulations/conditions for air quality e.g., IPPC/IE.</li> </ul>
Minimise all forms of air pollution and maintain/improve ambient air quality.	<ul style="list-style-type: none"> <li>Maintain ambient air quality through reduction of private vehicle usage and the promotion of public transport and active travel.</li> </ul>	<ul style="list-style-type: none"> <li>Compliance with national Air Quality Standards (AQS) and nitrogen deposition critical loads.</li> <li>Traffic, Transport and Vehicular survey data with the LAP boundary.</li> <li>Emission air, noise data from licensed facilities.</li> </ul>
Minimise emissions of greenhouse gases and contribute to a reduction and avoidance of human - induced global climate change.	<ul style="list-style-type: none"> <li>Provide for increased use of public transport;</li> <li>Increase number of cycle lanes and pedestrian routes in the Plan area;</li> <li>Reduce vehicles kilometres by private car in Plan area;</li> </ul>	<ul style="list-style-type: none"> <li>Travel patterns and the number of modes of transport within Kildare Town.</li> <li>Number of new air monitoring stations in Kildare Town.</li> </ul>

Draft Objectives	Draft Targets	Draft Indicators
<p>Reduce car dependency within the Plan area by way of an integrated approach to sustainable urban transport.</p>	<ul style="list-style-type: none"> <li>Establish incentives and or increase the number of permissions for renewable energy projects;</li> <li>To achieve a 51% reduction in GHG emissions from 2021 to 2030 to be climate neutral by 2050;</li> <li>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 Kildare Town Transport Strategy; and</li> <li>A decrease in the average distance travelled to work or school by the population of the Plan area.</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of the LAP, which will contribute towards the overall CDP and facilitate climate action and the relevant targets for emission reductions.</li> <li>Proportion of journeys made by private fossil fuel-based car compared to previous levels.</li> <li>Changes to vehicle kilometres travelled.</li> <li>Proportion of people reporting regular cycling / walking to school and work above previous CSO figures.</li> <li>Energy consumption, the amount of uptake in renewable options and solid fuels for residential heating.</li> <li>Rates of energy and or renewable energy consumption.</li> <li>The quantity of GHG emission increases within the Plan boundary over the Plan period.</li> <li>GHG emission reductions over the Plan period.</li> <li>Noise monitoring data from any new developments arising as a result of the Plan .</li> <li>Onsite dust monitoring of new development.</li> </ul>
<b>Archaeological, Architectural and Cultural Heritage</b>		
<p>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.).</p> <p>To ensure the restoration and re - use of existing uninhabited and derelict structures where possible opposed to demolition and new build (to promote sustainability and reduce landfill).</p>	<ul style="list-style-type: none"> <li>Regeneration of derelict and underutilised heritage sites;</li> <li>Improve appearance of areas with particular townscape character;</li> <li>Maintenance and enhancement of archaeological heritage- including entries to the Record of Monuments and Places and unknown archaeology- and the context of the above within the surrounding landscape where relevant;</li> <li>Maintenance and enhancement of entries to the Record of Protected Structures and or their context within the surrounding landscape where relevant;</li> <li>No permitted development which involves loss of cultural heritage, including protected structures, archaeological sites, Architectural Conservations Areas and landscape features; and</li> <li>To increase the number of uninhabited and derelict structures that are restored opposed to demolition.</li> </ul>	<ul style="list-style-type: none"> <li>Percentage of entries to the Record of Monuments and Places, and the context these entries within the surrounding landscape where relevant, protected from adverse effects resulting from development which is granted permission under the Plan in line with Kildare’s CDP.</li> <li>Percentage of entries to the Record of Protected Structures and Architectural Conservation Areas and their context protected from significant adverse effects arising from new development granted permission under the LAP in line with Kildare’s CDP.</li> <li>Recorded numbers of non-designated built heritage e.g., vernacular buildings.</li> <li>Range and extent of areas of heritage potential within the Plan LAP boundary.</li> <li>Number of uninhabited and derelict structures within the Plan boundary.</li> <li>Range and extent of areas of special planning controls.</li> <li>Archaeological Impact Assessments related to development, and or the number and types of archaeological investigations undertaken within the LAP boundary.</li> </ul>

Draft Objectives	Draft Targets	Draft Indicators
		<ul style="list-style-type: none"> <li>Educational facilities and or opportunities to promote awareness of natural and cultural heritage.</li> </ul>
<b>Landscape and Visual</b>		
<p>Conserve, protect and enhance valued natural, cultural and built landscapes, views of local value and features including those of geological and aesthetic value.</p>	<ul style="list-style-type: none"> <li>Improve protection for landscapes of recognised quality and protected views;</li> <li>Maintain clear urban and or rural distinctions;</li> <li>Enhance provision of, and access to, green space in urban areas;</li> <li>Ensure no significant disruption of historic and or cultural landscapes and features through objectives of the LAP; and</li> <li>Ensure development is sensitive to its surroundings.</li> </ul>	<ul style="list-style-type: none"> <li>Compliance with planning conditions relating to landscape and development.</li> <li>Range and extent of Amenity Landscapes.</li> <li>Rates of development within designated landscapes.</li> <li>Rates of urban expansion.</li> <li>Rates of agricultural land re-development.</li> <li>Percentage change of land use from rural to urban.</li> </ul>
<p>Maintain and enhance landscape quality within the Plan area by minimising visual impacts through appropriate design, assessment and siting.</p>	<ul style="list-style-type: none"> <li>No significant visual impact from development; and</li> <li>Ensure no significant disruption of high landscape values.</li> </ul>	<ul style="list-style-type: none"> <li>Number of planning permissions granted in areas of high value landscape.</li> <li>Number of permissions granted within 500m of a scenic route.</li> </ul>
<b>Material Assets</b>		
<p>Make best use of existing infrastructure and promote the sustainable development of new infrastructure.</p>	<ul style="list-style-type: none"> <li>Improve availability and accessibility of commercially provided facilities and public services;</li> <li>Increase local employment opportunities;</li> <li>Improve efficiencies of transport, energy and communication infrastructure;</li> <li>Increase in renewable energy developments;</li> <li>To achieve a 51% reduction in GHG emissions from 2021 to 2030, and to achieving net-zero emissions no later than 2050; and</li> <li>To identify areas for managing surface water in the Plan area, using nature-based solutions where possible.</li> </ul>	<ul style="list-style-type: none"> <li>Location and or level of infrastructure arising as a result of the Plan , including renewable energy developments granted planning permission.</li> <li>Achievement of County Development Plan objectives.</li> <li>Rates of deprivation within Kildare Town.</li> <li>Economic statistics for Kildare Town.</li> <li>Employment statistics for Kildare Town.</li> <li>Achievement of Ireland’s legally binding GHG reduction targets and net zero requirements, including renewable energy targets and percentage renewable energy use within the Plan boundary.</li> <li>Compliance with the recommendations as outlined in Kildare Town’s Surface Water Study.</li> </ul>

Draft Objectives	Draft Targets	Draft Indicators
<p>Maximise sustainable modes of transport and encourage use footpaths /cycle paths as alternative routes to school, work, and shops.</p> <p>Provide for ease of movement for all road users and to promote development patterns that protect and enhance road safety.</p> <p>Provide for ease of movement for all road users and to promote development patterns that protect and enhance road safety.</p>	<ul style="list-style-type: none"> <li>• Promotion of sustainable transport infrastructure i.e., increased public transport through the implementation of the Kildare Town Transport Strategy;</li> <li>• An increase in provision of cycle lanes and pedestrian routes;</li> <li>• An increase in population travelling to work and school by public transport or non-motorised transport;</li> <li>• A reduction in the distance travelled to work or school by the population of the Plan area;</li> <li>• Reduce the number of private vehicles on the road;</li> <li>• Increase in public transport;</li> <li>• Reduce vehicle kilometres travelled;</li> <li>• Increase cycle and walking modes of transport; and</li> <li>• Integrated traffic management plan for the Plan area.</li> <li>• Reduce the number of private vehicles on the road;</li> <li>• Increase in public transport; and</li> <li>• Integrated traffic management plan for the Plan area.</li> </ul>	<ul style="list-style-type: none"> <li>• Proportion of people reporting regular cycling / walking to school and work above previous CSO figures.</li> <li>• The amount of access to sustainable modes of transport.</li> <li>• Location and/or level of transport related infrastructure arising as a result of the draft Plan in line with all higher-level plans.</li> <li>• Innovation and technological advancements within the Plan boundary and the success rates of such.</li> </ul>
<p>Implement the waste hierarchy and encourage reuse/recycling of material wherever possible.</p>	<ul style="list-style-type: none"> <li>• Reduce the generation of waste and adopt a sustainable approach to waste management;</li> <li>• Reduction in the quantities of waste sent to landfill;</li> <li>• Increase in the quantities of waste sent for recycling;</li> <li>• Increase in the number of bring banks in the Plan area; and</li> <li>• Compliance with the Eastern Midlands Region Waste Management Plan 2015-2021 (or any subsequent plan).</li> </ul>	<ul style="list-style-type: none"> <li>• Rate of waste disposal to landfill statistics.</li> <li>• Range and extent of recycling facilities and services; and</li> <li>• Rates of recycling.</li> <li>• Achievement of the objectives of the Eastern Midlands Region Waste Management Plan 2015-2021 (or any subsequent plan).</li> </ul>
<p>To ensure adequate and clean drinking water supplies.</p> <p>Improve efficiency in distribution of potable water to the population through pipe rehabilitation and to promote water conservation and sustainable water usage for long - term protection of available water resources.</p> <p>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.</p>	<ul style="list-style-type: none"> <li>• Upgrade existing water treatment plants within the Plan area;</li> <li>• Reduce the amount of water usage;</li> <li>• Reduce the amount of water lost through pipe leakage (currently 65%) through the pipe rehabilitation;</li> <li>• Increase usage of water collected through water harvesting; and</li> <li>• Upgrade Kildare Town sewer network and wastewater treatment plant as and if necessary.</li> </ul>	<ul style="list-style-type: none"> <li>• The number and extent of Water Treatment Plans on EPAs Remedial Action List with the Plan boundary.</li> <li>• Upgrades to Kildare Town Wastewater Treatment Plant.</li> </ul>

## 7. Alternatives Considered

### 7.1 Introduction

Article 5.1 of the SEA Directive requires the Environmental Report 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 **Error! Reference source not found.**).

### 7.2 Identification of Reasonable Alternatives

As discussed in Section 2, the draft Plan is positioned within an overall plan hierarchy under the National Planning Framework (NPF), Regional Spatial and Economic Strategy (RSES) for the Eastern and Midland Region and the Kildare County Development Plan 2023-2029, which pre-determined the scope of the strategic alternatives.

The Core Strategy of the Kildare County Development Plan 2023-2029 allocates 430 new residential units for the period 2023-2029 for Kildare Town. The Kildare County Development Plan 2017-2023 indicated that the draft Kildare Town Local Area Plan 2012-2018 had a capacity surplus of 2,027 units at that time, which was required to be addressed through the relevant local area plan. Thus, the development of alternative scenarios had regard to the level of over-zoning and also the high level of extant planning permissions that will be delivered during the lifetime of the draft Plan.

In devising the alternative scenarios, Kildare County Council took cognisance that alternatives must be realistic, reasonable, viable and implementable. In the context of formulating alternatives, the following parameters were of note for Kildare Town:

- Kildare Town is designated as a Self-Sustaining Growth Town in the CDP;
- The County Core Strategy allocation for the settlement (as adapted to 2029 and to include 25% additional housing provision) is 628 residential units over the lifetime of the draft Plan;
- There are currently 985 residential units with extant planning permissions within the settlement, and a further 551 residential units at pre-planning or planning application consideration stage;
- For Kildare Town to reach a job ratio of 0.70, an additional 1,127 jobs are required during the lifetime of the draft Plan;
- There are deficiencies in public open space provision and childcare for the existing population;
- To cater for the planned population growth, additional school places and employment opportunities are required in addition to open space and childcare;
- Surface water management is a significant issue in Kildare Town; and
- The Curragh Natural Heritage Area (pNHA) (site code 000392) immediately adjoins the Plan area to the east. This is designated as a High Sensitivity Landscape in the CDP.

A Settlement Capacity Audit (SCA) has informed the preparation of the draft Plan with regard to the delivery of infrastructure required as by the National Planning Framework (NPF). The baseline for the assessment was the residential and economic zoned land within the Kildare Local Area Plan 2012-2018 in order to establish the status of the lands. In this regard the NPF sets out a tiered approach for zoning lands:

- *‘Tier 1: Serviced Zoned Land, comprising lands that are able to connect to existing development services for which there is service capacity available and can therefore accommodate new development; and*
- *Tier 2: Serviceable Zoned Land, comprising lands that are not currently sufficiently serviced to support new development but have the potential to become fully serviced within the life of the plan.’*

### 7.2.1 Scenario 1: Development of residential extant, zoning all remaining New Residential land as strategic reserve and the retention of economic land as per the 2012-2018 Local Area Plan

This scenario looks primarily at lands zoned in the Kildare Town LAP 2012-2018 for new residential and employment purposes and considers the implications of a continuation of these zoning objectives into the new Plan period. The Settlement Capacity Audit carried out to inform the draft Plan, is the basis for the assessment of this scenario.

In relation to residential lands in this scenario, the sites chosen are those currently zoned New Residential and for the regeneration of the Former Magee Barracks in the Kildare Town Local Area Plan 2012-2018. The outcome of the Settlement Capacity Audit for Kildare Town determined four sites as not being suitable for development within the lifetime of the draft Plan. All of these sites are on the periphery of the town in the northwest and potential surface water corridors traverse these sites.

In relation to economic lands in this scenario, the sites chosen are currently zoned for employment land uses within the Kildare Town Local Area Plan 2012-2018. They consist of land use objectives for Industrial and Warehousing, Enterprise and Employment and Commercial. The undeveloped economic lands extend to ca. 125 hectares. For Kildare Town to reach a job ratio of 0.70, an additional 1,127 jobs are required during the lifetime of the draft Plan. Given the existing 125 hectares zoned for employment purposes, this would result in 1,109 sqm per employee, which is excessive. A number of sites currently zoned for commercial land uses are not considered appropriate for development under the Settlement Capacity Audit.

### 7.2.2 Scenario 2: Town Centre Consolidation, expansion between the motorway and railway line with protection of Green Belt at the Curragh

This scenario includes:

- The development of the residential extant planning permissions to address the Core Strategy housing allocation;
- Focus on consolidating the town centre by development of vacant and underutilised sites for economic development; and
- Development of lands proximate to strategic infrastructure, i.e., between the motorway and railway line.

In this scenario a Tier 1 land site and a site that is currently zoned as New Residential could deliver 582 units, ground works have commenced on both sites and the Core Strategy housing allocation is to be addressed with these sites. While two other residential sites, one of Tier 1 lands and one of Tier 2 lands, have the potential to deliver housing, however, they are not required for the lifetime of the draft Plan. These sites could deliver commercial or community or open space related land uses however, the site consisting of Tier 2 lands, represents further expansion of the built environment to the east towards the Green Belt and the Curragh.

One site consisting of Tier 1 lands, and one site consisting of Tier 2 lands are being prepared for a Public Private Partnership Social Housing Development accommodating circa 80-85 units and would address the social housing demand in the town.

Three commercial sites are located within the defined settlement boundary and are classed as Tier 1 lands, the development of the same would represent consolidation of the urban form.

There is one site located outside the defined settlement boundary and it scores highly as a Tier 2 site, the development of the same will provide a key route between Hospital Road and Tully Street. The sites combined would provide 7.33 ha of commercial lands consolidating the built urban form. Two of the commercial sites extend to 44.18 ha and are classed as Tier 2 commercial lands. The sites could potentially provide 457sqm per employee however the employment densities for manufacturing, logistics would vary considerably than those closer to the town centre.

Two sites of underdeveloped commercial land to the west of Kildare town are not considered to be suitable for development during the lifetime of the draft Plan, as per the Settlement Capacity Audit.

### 7.2.3 Scenario 3: Delivery of extant residential permissions, town centre consolidation, protection of the Green Belt at the Curragh and a combination of sites that could potentially be delivered

This scenario includes:

- Development of extant planning permission to achieve housing growth allocation;
- Reduction of lands zoned 'New Residential' without planning permission;
- Application of the Strategic Reserve land use zoning designation;
- Town Centre Consolidation/Regeneration; and
- Protection of Green Belt.

Alternatives for this scenario in relation to residential lands include, two residential sites, one consisting of Tier 1 lands and one that is currently zoned as new residential within the Kildare Town Local Area Plan 2012-2018, the two sites have planning permission to deliver 582 units. A site consisting of Tier 2 lands has an application with An Bord Pleanála for 87 units and this permission received a notification of a decision to grant from Kildare County Council. There are currently two active construction sites in the town which will be delivering 316 units the during 2023-2029 period, which provides a total of 985 units within Kildare Town, which is in excess of the Core Strategy allocation.

Two sites, one consisting of Tier 1 lands and one consisting of Tier 2 lands are the subject of a PPP Social Housing Scheme which is currently being prepared by Kildare County Council and is ear-marked for the delivery of 80-85 units, in combination with the 985 units mentioned above, this comes to a total of 1,070 units. Seven sites are classed as Tier 2 lands and can be identified as Strategic Reserve. One site consisting of Tier 1 land has the potential to be developed for Community or Open Space uses.

Alternatives for this scenario in relation to employment lands include three Commercial sites that are located within the CSO defined settlement boundary and are classed as Tier 1 lands. The development of the same would represent consolidation of the urban form, while one site is located outside the defined settlement boundary and scores highly as a Tier 2 site. The development of the same will provide a key route between Hospital Road and Tully Street and the sites combined would provide 7.33 ha of commercial lands consolidating the built urban form.

Five sites classed as Tier 2 lands can be considered for employment lands subject to an evidence-based approach to the formulation of a methodology to provide for 1,127 jobs. The potential land requirements for a range of employment types across an array of employment/enterprise land-use zonings must be considered in this alternative. Three sites cannot be considered for development within the lifetime of the draft Plan as per the Settlement Capacity Audit, given that potential surface water corridors traverse these sites.



## 7.3 Assessment of Alternatives

### 7.3.1 Introduction

This section provides an assessment of the three Alternatives outlined in Section 7.2.

### 7.3.2 Scenario 1: Development of residential extant, zoning all remaining New Residential land as strategic reserve and the retention of economic land as per the 2012-2018 LAP

Scenario 1 relates to a ‘business as usual’, or continuation of the existing development trends in Kildare town, in line with the Kildare Town Local Area Plan 2012-2018. This scenario is likely to result in markedly excessive growth both in relation to economic and residential growth, as over zoning was prominent in the Kildare Town Local Area Plan 2012-2018.

The majority of lands identified in this scenario consist of Tier 2 lands and include sites of extant planning permissions, sites with active planning history, sites acceptable for development within the lifetime of the draft Plan and also sites that are not suitable for development. The majority of the sites identified consist of Tier 2 lands and so, the lack of services associated with this scenario is likely to result in a negative effect on Material Assets.

The level of development, inclusive to the progression of social housing development on two sites in this scenario, is likely to result in a positive effect on human health and population through increased delivery of new residential and employment opportunities in Kildare Town. However, as the Kildare County Development Plan 2017-2023 indicated that the Kildare Town Local Area Plan 2012-2018 had a capacity surplus of 2,027 units at that time, this scenario is likely to result in an excess of both housing and economic sites. Over zoning and the high level of extant planning permissions that are to be delivered during the lifetime of the draft Plan will result in excessive development and are likely to also result in negative impacts on the environment as a result.

This scenario is likely to provide a key piece of transport infrastructure for the town which will relieve traffic flow in the Market Square area of the town, however the zoning of both residential and economic areas demonstrates urban sprawl in some areas on the periphery of the Plan boundary, thus, there is potential for increased reliance on private vehicle use. The provision of growth is likely to result in positive effects through the encouragement of compact growth in this area, however as the majority of sites identified in the east are greenfield sites, significant negative environmental effects are likely to occur where development on greenfield sites are facilitated. A high number of sites identified in this scenario are also noted to include a potential surface water corridor that traverses the site, thus potential negative environmental impacts are anticipated for development of such, particularly in relation to water.

Four sites identified for residential land uses are not considered appropriate for development under the Settlement Capacity Audit and three sites identified for economic land uses are not considered appropriate for development under the Settlement Capacity Audit. This scenario includes the highest number of inappropriate sites identified for development out of all three scenarios.

### 7.3.3 Scenario 2: Town Centre Consolidation, Expansion Between the Motorway and Railway Line with Protection of Green Belt at the Curragh

Scenario 2 relates to growth within the Strategic Transportation Corridor and the urban area where development of lands proximate to strategic infrastructure, for example between the M7 Motorway and Kildare town railway line will be prioritised. This connectivity to local infrastructure is likely to benefit the local community and has potential to increase accessibility within Kildare town, however, as development is occurring, is likely to result in negative impacts on the environment.

This development scenario 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. Much of the town centre of Kildare town is already zoned for development, so by focusing on the re-development and regeneration of these zonings rather than zoning new greenfield land for development on the periphery, additional environmental impacts can be avoided.

However, for the purposes of this assessment it is assumed that greenfield development may also be occurring, particularly in the south-west and south-east of the Plan boundary, greenfield development is likely to result in significant negative environmental impacts.

The provision of growth within the urban area, is likely to result in positive effects through the encouragement of compact growth in this area, however as previously mentioned, where development on greenfield sites is facilitated, significant negative environmental effects are likely to occur. Two of the extant permission sites that have been zoned for residential use have been assessed as likely to address the Core Strategy housing allocation alone, which is likely to aid the capacity surplus that was previously identified for the Kildare Town Local Area Plan 2012-2018. Increased open space is likely to be facilitated where, the residential and economic capacities for the town are likely to be met, with an excess of sites available. Thus, two sites have been identified with capabilities to deliver commercial or community/open space related land uses, which is likely to result in positive impacts on population and human health. Two sites have also been identified to address the social housing demand in the town, through a PPP Social Housing Development, which furthermore, is likely to result in positive impacts to population and human health.

Three commercial sites have been identified within the defined settlement area and are classed as Tier 1 lands. The development of same would represent consolidation of the urban form. One further site has been identified outside of the CSO settlement boundary and scores highly as a Tier 2 site, in relation to this site there may be potential for negative impacts on material assets as this land would need to be made serviceable. However, the development of same will provide a key route between Hospital Road and Tully Street. All commercial sites listed in this scenario combined would provide 7.33 ha of commercial lands and can be serviced or are serviceable during the lifetime of the draft Plan, thus these sites are likely to facilitate the consolidation of the built urban form. Consolidation of the town is likely to have a positive impact on the environment as urban sprawl and associated development by such, will be avoided, a potential positive impact on air, noise and climate is also anticipated. A positive impact on population and human health is envisaged, through the provision of residential and commercial opportunities, however, high population density in the town centre of Kildare town could however put a strain on utilities and services, and it should be ensured that there is sufficient water and wastewater capacity to facilitate any residential development.

Two commercial sites are identified in this scenario as being acceptable for development, these sites extend 44.18 ha to the south-west off the periphery of the Plan boundary. These sites are classed as Tier 2 commercial lands and could potentially provide 457sqm per employee in Kildare town. However, the employment densities for manufacturing and logistics would vary considerably than those closer to the town centre, in the case that these sites are utilised as economic lands. For the purpose of this assessment, it is assumed that if development on these lands are facilitated, development will take place on two substantial greenfield sites, thus both in relation to the use of greenfield sites and inclusion of Tier 2 land, negative impacts are considered likely for both the surrounding environment and material assets.

Protection of the Green Belt at the Curragh is likely to result in overall positive impacts to biodiversity, water and land and soil heritage. Neutral impacts are also likely for landscape and visuals and material assets with the protection of such.

Two large sites of underdeveloped commercial land to the west of the Plan boundary are not considered to be suitable for development during the lifetime of the draft Plan as per the Settlement Capacity Audit.

### **7.3.4 Scenario 3: Delivery of extant residential permissions, town centre consolidation, protection of the Green Belt at the Curragh and a combination of sites that could potentially be delivered**

Scenario 3 consists of 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. Much of the town centre of Kildare town is already zoned for development, so by focusing on the re-development and regeneration of these zonings rather than zoning new greenfield land for development on the periphery, additional environmental impacts can be avoided. However, for the purposes of this assessment it is assumed that greenfield development may also be occurring, along the periphery of the Plan boundary. Greenfield development has the potential to result in a significant negative impact on the environment.

It is likely that a positive impact on population and human health will occur through the provision of residential opportunities, and the consolidation of the urban core.

Consolidation of the town will likely result in a positive impact on air, noise, and climate. A positive impact on population and human health is envisaged, through the provision of residential and commercial opportunities. A high population density in the town centre of Kildare Town could however put a strain on utilities and services, and it should be ensured that there is sufficient water and wastewater capacity to facilitate any residential development. Three commercial sites are located within the CSO defined settlement boundary of Kildare Town and are classed as Tier 1 lands, the development of same would represent consolidation of the urban form. One further commercial site is located outside the defined settlement boundary, and it scores highly as a Tier 2 site, in relation to this site there may be potential for negative impacts on material assets as this land would need to be made serviceable. However, the development of same will provide a key route between Hospital Road and Tully Street. All commercial sites listed in this scenario combined would provide 7.33 ha of commercial lands and can be serviced or are serviceable during the lifetime of the draft Plan, thus these sites are likely to facilitate the consolidation of the built urban form which is likely to have a positive impact on the environment as urban sprawl and associated development by such, will be avoided.

The provision of growth within the built-up urban area will be facilitated in this scenario where one site is identified for residential use as an extant permission, on a brownfield site. This site will account for a large proportion of residential units to meet the Core Strategy allocation of the Kildare County Development Plan 2023-2027. One further site has been identified as an extant permission for residential use outside of the CSO settlement boundary to the south-west. Both potential positive and negative impacts have been identified for this site as development on greenfield sites are likely to have significant environmental impacts, however the increase in residential units is likely to result in positive impacts on the surrounding population. Similarly, the two sites that are also the subject of a PPP Social Housing Scheme to the east of the Plan boundary are likely to result in positive impacts on population and human health. Excess development has the potential to negatively impact the environment, however as this scenario is likely to facilitate consolidation and some compact growth, the extent of potential negative impacts on the environment is likely to be less substantial than where urban sprawl is facilitated and particularly where urban sprawl is facilitated on peripheral greenfield sites.

Increased open space is also likely to be facilitated in this scenario where, one site has been identified as having capabilities to deliver Community or Open Space use. Increased recreational space is likely to result in positive impacts on the surrounding population and human health. In this scenario seven Tier 2 sites have been identified as Strategic Reserve sites, these sites are all located on the periphery of the CSO settlement boundary of Kildare town, however as no development is set to occur as a result of the Strategic Reserve of these lands neutral environmental impacts are likely to occur in these areas, neutral impacts on material assets and landscape and visual are also likely where no development is anticipated to take place on sites of strategic reserve.

Five sites have the potential for positive impacts on population and human health as they have been considered as employment land, subject to an evidence-based approach to the formulation of a methodology to provide for 1,127 jobs, thus these lands have potential to increase economic activity in Kildare Town.

It is not possible to fully ascertain the potential impact on heritage, as a portion of the town is designated as an Architectural Conservation Area. Any development in this area could negatively impact on sites or buildings of historical or architectural significance. High density housing can also result in a landscape and visual impact if residential units are too intrusive, however, the scale and or density of the development proposed under this scenario is not known.

Protection of the Green Belt at the Curragh is likely to result in overall positive impacts to biodiversity, water and land and soil heritage. Neutral impacts are also likely for landscape and visuals and material assets with the protection of such.

Three sites identified as potential economic lands cannot be considered for development within the lifetime of the draft Plan as per the Settlement Capacity Audit.

## 7.4 Alternatives Assessment

The assessment process categorised environmental impacts using the ratings outlined in Table 4.2 in Section 4.7 of this report which is based on the impact assessment criteria defined by the EPA for environmental impact assessment.

Table 7.1 identifies the likely unmitigated impacts associated with each of the alternatives considered. The preferred alternative is Alternative 3. As noted in Section 7.2, Alternative 3 relates to the preparation of a new Local Area Plan.

**Table 7.1 Alternatives Assessment**

Alternative Number	Description of Alternative Scenario:	P&HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA
<b>Alternative 1:</b> Development of residential extant, zoning all remaining New Residential land as strategic reserve and the retention of economic land as per the 2012-2018 LAP	Development of residential extant, zoning all remaining New Residential land as strategic reserve and the retention of economic land as per the 2012-2018 LAP.								
<b>Alternative 2:</b> Town Centre Consolidation, Expansion Between the Motorway and Railway Line with Protection of Green Belt at the Curragh	The development of the residential extant planning permissions to address the Core Strategy housing allocation.								
	Focus on consolidating the town centre by development of vacant and underutilised sites for economic development.								
	Development of lands proximate to strategic infrastructure, i.e., between the Motorway and Railway line.								
<b>Alternative 3:</b> Delivery of extant residential permissions, town centre consolidation, protection of the Green Belt at the Curragh and a combination of sites that could potentially be delivered	Development of extant planning permission to achieve housing growth allocation.								
	Reduction of lands zoned 'New Residential' without planning permission.								
	Application of the Strategic Reserve land use zoning designation.								
	Town Centre Consolidation/Regeneration								
	Protection of Green Belt.								

## 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 meet the Strategic Environmental Objectives and which, if any, contradict these.

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

### 8.2 Assessment of Alternatives

The environmental effects of the draft 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 4.2 in Section 4.7 of this report which is based on the impact assessment criteria defined by the EPA for environmental impact assessment.

The potential environmental impact is assessed under the following headings:

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

### 8.3 Principal Environmental Effects

The environmental effects of the draft LAP were assessed, having regard to the baseline environmental assessment (Section 5). This assessment outlines an unmitigated scenario. The matrix outlined in Table 8.1 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 land-use zoning assessment relative to the draft LAP (Table 8.2).

Transportation measures included in the draft LAP have also been assessed in addition to the objectives and policies of the draft LAP. The measures have been assessed at high-level in this assessment for completeness, although they predominantly relate to site-specific road/cyclist/pedestrian etc. infrastructure.

**Table 8.1 Strategic Environmental Assessment – Policies and Objectives of the LAP**

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary	
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA		
<b>Compliance with Core Strategy</b>											
<b>CSO 1.1</b>	Accommodate housing growth in Kildare Town in accordance with the Core Strategy of the Kildare County Development Plan 2023-2029 and any review, replacement, or variation thereof.										This is standard, existing policy- it is a requirement that local area plans are consistent with the core strategies of the relevant development plan. An overall potential neutral environmental effect is therefore identified.
<b>CSO 1.2</b>	Protect and enhance, through appropriate regeneration and appropriate transportation strategies, the quality, ambience and vitality of Kildare Town Centre in order to create a pleasant and attractive environment for business, tourism and recreation for both visitors and residents.										An overall neutral environmental impact has been identified for this objective where, the protection and enhancement of the Town centre, through appropriate regeneration and appropriate transportation strategies, is likely to have minimal potential for negative impacts. Positive impacts have been identified for population and human health, archaeology, architectural and cultural heritage, landscape and visual and material assets.
<b>CSO 1.3</b>	Support and facilitate the compact growth of Kildare Town through the sustainable and sequential land use development objectives which consolidate the town centre, commercial uses and established residential areas.										Compact growth of Kildare Town through the sustainable and sequential land use development objectives which consolidate the town centre, commercial uses and established residential areas 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 re-development or re-generation could potentially negatively impact on sites or buildings of historical or architectural significance. A high population density in Kildare town centre could however put a strain on material assets, however, using the term ‘sustainable and sequential land use development’ here it is assumed that development would only occur where it could be ensured that there is sufficient water and wastewater capacity to facilitate any residential development.

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	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.
<b>CSO 1.4</b>	Monitor the scale, type, tenure and location of constructed and permitted developments in Kildare Town during the lifetime of the Plan and apply appropriate development management standards to ensure compliance with the Core Strategy to achieve the delivery of strategic planned and coordinated balanced development within the town.									The targeted delivery of appropriate and strategic development in the LAP area is likely to result in a positive impact on population and human health through provision of residential, commercial, employment and/or recreational opportunities. The application of development management standards and monitoring of the scale and type of new development is likely to result in a positive impact on both landscape and visual and material assets in that it will ensure that no new development is visually intrusive, or outside the capacity of existing utilities. It will also ensure that any development within the town centre where an abundance of structures of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest, are appropriate and will not negatively impact sites or buildings of historical or architectural significance.
<b>CSO 1.5</b>	Support and facilitate the implementation of the projects stemming from the Kildare Town Renewal Masterplan which have been incorporated into the Kildare Local Area Plan and pursue suitable funding mechanisms to realise the projects of the Masterplan.									Support and facilitation of the implementation of the projects stemming from the Town Renewal Masterplan will contribute positively to the development and regeneration of the town centre that has potential to provide greater opportunity to live and work in the town, in addition to greater service provision. Thus, a potential positive effect on the population and human health is identified. Town regeneration and the likelihood to facilitate 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 Kildare town and its abundance of structures of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest and so, development or regeneration in the town will need to be cognisant of any features or areas of architectural significance. Renewal and regeneration by nature generally has a positive effect on the landscape and visual amenity of the town centre, particularly where previously derelict or poor-quality buildings are targeted.

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
										An uncertain effect on material assets is identified in that urban 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 and the new services and utilities provisions required in rural areas, as well as the increased reliance on private vehicle use. Negative effects of compact growth include increased demand on existing services and utilities.
<b>CSO 1.6</b>	Prioritise the development of town centre lands as the commercial core for the town with a mix of uses to ensure the vibrant and balanced development of the town centre.									The development of town centre lands as the commercial core for Kildare town with a mix of uses will contribute positively to the development and economic activity of the town centre which has potential to provide greater opportunity to live and work in the town, in addition to greater service provision. Thus, a potential positive effect on the population and human health is identified. Prioritising the development of town centre lands as the commercial core for Kildare town 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 Kildare town is home to an abundance of structures of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest and so, development or regeneration in the town will need to be cognisant of any features or areas of architectural significance. A positive effect on the landscape and visual amenity of the town centre is identified in that, the term 'vibrant and balanced development of the town centre' is taken to assume that positive visual impacts will result from developing the town centre as the commercial core, where potentially unsightly buildings/structures may be improved. An uncertain effect on material assets is identified in that development of the town centre as a commercial core can lead to both positive and negative environmental effects.



Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
<b>CSO 1.7</b>	Focus new enterprise development primarily into the town centre and alternatively on lands identified for Enterprise and Employment, Commercial and Industry and Warehousing uses.									An overall uncertain environmental effect is identified with regards 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 and Warehousing uses. There is potential for positive impacts for population and 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.
<b>CSO 1.8</b>	Support the delivery of physical and social infrastructure to sustain all residential development.									It is not possible to ascertain the whether the proposed objective has the potential to result in negative impacts on the environment, as the type, scale and location of the development has not been defined. Refer to site-specific zoning assessment. A positive impact on population and human health is predicted however, through increased residential opportunities.
<b>CSO 1.9</b>	Work with multi-disciplinary stakeholders and pursue suitable funding mechanisms to realise the Vision and objectives of the local area plan as opportunities arise.									A potential positive effect on the population is identified through increased involvement- and say- in the implementation of the LAP objectives. An uncertain environmental effect is identified with regards other SEA environmental objectives. Refer to the assessment of each objective within this table.
<b>CSO 1.10</b>	Preserve the lands identified as ‘Phase 2 New Residential’ and ‘Strategic Reserve’ on Map 11.1 Land Use Zoning Objectives from inappropriate forms of development, 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.

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
<b>CSO 1.11</b>	Support the full implementation of the Kildare County Council Climate Change Adaptation Strategy 2019-2024, or any succeeding document, with regards to its goals, objectives and actions relating to the planning and development of the town of Kildare.									A potential positive effect on the air quality and climate is identified through, supporting the full implementation of the Kildare County Council Climate Change Adaptation Strategy 2019-2024, where increased climate resilience will be facilitated throughout its goals, objectives and actions relating to the planning and development of the town of Kildare. A potential positive impact on population and human health is identified within the correlation of potential positive impacts identified for air quality and climate. Increased climate resilience in the long term will positively impact human health in Kildare town. An uncertain impact has been identified for material assets as a result of the potential and need for new services and utilities provisions required in Kildare town in line with the Climate Change Adaptation Strategy, for example charging facilities for increased electric vehicles usage throughout the town. Otherwise, an overall neutral environmental effect has been identified for the support of an existing Strategy.
<b>Town Centre Objectives</b>										
<b>TCO 1.1</b>	Reinforce the town centre as a primary location for commercial, civic, social and cultural development through the promotion of new high-quality infill and backland development that consolidates the existing urban core.									<p>The re-development and regeneration 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.</p> <p>It is not possible to fully ascertain the potential impact on heritage, as a large portion of the town 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.</p> <p>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.</p> <p>A high population density in Kildare town centre could however put a strain on material assets, however the recent upgrades to Kildare town's WWTP and sewer network should accommodate all development proposed under the plan.</p>

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
										High density housing can also result in a landscape and visual impact if residential units are too intrusive, however, the scale or density of development is not known. Refer to Table 9.1 for mitigation measures.
<b>TCO 1.2</b>	Protect the character of the town centre and ensure that new development responds positively to its established built form, scale and character and to continue implementing environmental improvements, 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.
<b>TCO 1.3</b>	<p>Protect the vibrancy, ambience, quality and vitality of the town centre by:</p> <p>Promoting an appropriate mix of day and night-time uses.</p> <p>Preventing an excessive concentration of less desirable uses unless carefully managed through an appropriate sympathetic design approach.</p> <p>Facilitating development that will attract and retain commercial and retail activities in the town centre.</p> <p>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 including</p>									<p>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.</p> <p>It is not possible to fully ascertain the potential impact on heritage, as a large portion of the town 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.</p> <p>Otherwise, this objective is likely to result in a neutral impact on the environment, in general.</p>

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
	food or craft enterprises and cultural offerings such as theatre or museum.									
<b>TCO 1.4</b>	Encourage and facilitate the full use of buildings and in particular the use of upper floors and backlands, with particular regard to high quality urban design and materials used as well as integration, and linkages.									<p>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.</p> <p>It is not possible to fully ascertain the potential impact on heritage, as a large portion of the town 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.</p> <p>A high population density in Kildare Town Centre could however put a strain on material assets, however the recent upgrade to Kildare Town's WWTP and sewer network should accommodate all development proposed under the plan.</p> <p>High density housing can also result in a landscape and visual impact if residential units are too intrusive- the scale or density of development is not known. Refer to Table 9.1 for mitigation measures</p>
<b>TCO 1.5</b>	Encourage and facilitate the appropriate intensification of town centre sites where high standards of architectural design are achieved and impacts on the character of the area are positive.									<p>The appropriate intensification the town and established residential areas 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.</p> <p>Although, high standards of architectural design will be achieved and impacts on the character of the area are anticipated to be positive. It is not possible to fully ascertain the potential impact on heritage, as a large portion of the town is designated as an Architectural Conservation Area. Development in this area, even re-development or re-generation could potentially negatively impact on sites or buildings of historical or architectural significance.</p>

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
										A high population density in Kildare Town Centre could however put a strain on material assets, however, by the use of the term ‘sustainable development’ here it is assumed that development would only occur where it could be ensured that there is sufficient water and wastewater capacity to facilitate any residential development. High density housing can also result in a landscape and visual impact if residential units are too intrusive- the scale or density of development is not known.
<b>TCO 1.6</b>	Support the Town Team and the Town Regeneration Officer in the carrying out of their duties in Kildare Town in respect of prioritising the regeneration of the town centre through the application of the Town Centre First Policy approach.									<p>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.</p> <p>It is not possible to fully ascertain the potential impact on heritage, as a large portion of the town centre is designated as an Architectural Conservation Area. Development in this area, even re-development or re-generation could potentially negatively impact on sites or buildings of historical or architectural significance.</p> <p>A high population density in Kildare Town Centre could however put a strain on material assets, however, by the use of the term ‘sustainable development’ here it is assumed that development would only occur where it could be ensured that there is sufficient water and wastewater capacity to facilitate any residential development.</p>
<b>Town Renewal Objectives</b>										
<b>TCO 2.1</b>	Support and facilitate the implementation of the projects detailed in Table 4-1 (as per the Kildare Town Renewal Masterplan) as follows: <ul style="list-style-type: none"> <li>• Market Square and Environs Project</li> <li>• Cycle and Pedestrian Network Enhancements Project</li> <li>• Public Realm Enhancements Project</li> <li>• Train Station Improvements Project</li> </ul>									Supporting and facilitating the implementation of the projects detailed in Table 4-1 of the LAP will contribute positively to the development and regeneration of the town centre with potential to provide greater access, mobility, and recreational activity in the town, in addition to greater service provision. Thus, a potential positive effect on the population and human health is identified. The projects detailed in this objective are primarily improvement/upgrade works to existing infrastructure with a big focus on facilitating active travel over vehicular movement in the town centre.

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	<ul style="list-style-type: none"> <li>Courthouse and Water Tower Improvements Project</li> </ul> <p>Seek to secure financial support through potential future funding mechanisms in conjunction with other statutory agencies and relevant stakeholders, particularly through the Rural/Urban Regeneration and Development Fund (RRDF/URDF) to support the urban renewal of Kildare Town.</p>									<p>Thus, this objective favours air, noise and climate factors in that the projects listed, aim to reduce the need for excess vehicular travel and promote active travel.</p> <p>An uncertain effect on Heritage is identified at this time in that, Kildare Town has an abundance of structures of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest and so, development or regeneration in the town will need to be cognisant of any features or areas of architectural significance. Renewal and regeneration by nature generally has a positive effect on the landscape and visual amenity of the town centre, particularly where previously derelict or poor-quality buildings are targeted. An uncertain effect on material assets is identified in that urban upgrades/ improvement projects of the town centre can lead to both positive and negative environmental effects, it is possible that increased services may be necessary where developments/ upgrades are facilitated. Potential negative impacts have been identified for biodiversity, land and soil and water as, although the projects listed note mainly upgrade, improvement and or regeneration works, any development particularly the construction phases of development has potential to negatively impact the surrounding environment. Refer to mitigation measures in Section 9 of this report.</p>
<b>TCO 2.2</b>	<p>Collaborate with Irish Rail in relation to the development of the underutilised land to the north of the train station (identified as site B* on Map 11.1) to facilitate access to the station and the re-imagining of the lands.</p>									<p>The site identified in this objective consists primarily of greenfield land and has been assessed as such. Any new development, has the potential to give rise to negative environmental effects. The development of underutilised land to the north of the train station to facilitate access to the station and the re-imagining of these land has potential to improve landscape and visuals in this area however, as the scale and extent of development is currently unknown, it is not possible to ascertain the impact that may occur as a result of reimagining these lands.</p> <p>It is also not possible to fully ascertain the potential impact on heritage, where three protected structures are located in close proximity to the site. Development in this area, even re-development or re-generation could potentially negatively impact on sites or buildings of historical or architectural significance. Refer to mitigation measures in Section 9 of this report.</p>

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										The implementation of these measures is, however, likely to result in a positive effect on the population, air and climate and material assets as a result of enhanced access to public transport facilities.
<b>TCO 2.3</b>	Continue to actively engage with the community, landowners, developers and other agencies to pursue resources for the enhancement, renewal and regeneration of Kildare Town Centre.									Increased engagement with community, landowners, developers and other agencies to pursue resources for the enhancement, renewal and regeneration of Kildare Town Centre is likely to have a positive impact on the population and human health. A neutral impact on the environment in general is predicted.
<b>TCO 2.4</b>	Ensure that urban renewal works prioritise the enhancement of the streetscape and heritage assets of the town centre of Kildare, to sustain and improve its unique attraction for living, working, visiting and investment.									An overall neutral environmental impact has been identified for this objective where, ensuring that urban renewal works prioritise the enhancement of the streetscape and heritage assets of the town centre of Kildare, in order to sustain and improve its unique attraction for living, working, visiting and investment, is likely to have minimal potential for negative impacts. Positive impacts have been identified for population and human health, archaeology, architectural and cultural heritage, landscape and visual and material assets where renewal works and enhancement of streetscapes and heritage assets of the town centre is likely to have an overall positive impact to these areas.
<b>Economic Development Objectives</b>										
<b>EDO 1.1</b>	Facilitate sustainable economic development and employment growth in Kildare Town in accordance with its designation as a Self-Sustaining Growth Town 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 Kildare Town. An overall neutral environmental impact has been identified for this objective.
<b>EDO 1.2</b>	Actively encourage the appropriate redevelopment of brownfield sites and re-use of disused buildings for enterprise and employment creation on town centre lands.									The development of brownfield and re-use of disused buildings for enterprise and employment creation 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 enterprise and employment opportunities, discourages urban sprawl, reduces traffic movements, enhances the public realm and encourages more sustainable transport methods.

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
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										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. It is not possible to ascertain if this objective will result in an impact on landscape and visual, as the type or scale of proposed redevelopment is not defined. High density development can result in a landscape and visual impact if they are too intrusive.
<b>EDO 1.3</b>	Support the National Equine Innovation Centre and proposals for future hubs and co-working spaces in the town centre, particularly where they reuse dormant buildings/sites to stimulate urban renewal and decarbonisation, and where possible integrated with other key community facilities / services in order to share resources. Future development of Hubs shall be in accordance with the Locations Assessment Model as detailed in the Kildare 2025 Economic Strategy and consultation with the Kildare Local Enterprise Office shall be carried out.									An overall neutral environmental impact has been identified for this objective where, proposals for future hubs and co-working spaces are in the town centre, particularly where they reuse dormant buildings/sites to stimulate urban renewal and decarbonisation, and where possible to integrate with other key community facilities/ services to share resources, such proposals are likely to have minimal potential for negative impacts. Positive impacts have been identified for population and human health, archaeology, architectural and cultural heritage, and landscape and visual where renewal works, and reuse of dormant buildings/ sites is likely to have an overall positive impact on visual aspects and quality of buildings in the town centre, the surrounding population are likely to benefit from increased economic activity in the area.
<b>EDO 1.4</b>	Support the provision of a Craft, Creativity and Design Hub within Kildare Town Centre through the Kildare County Council's Economic Development Office.									For the purposes of this assessment, it is assumed that supporting the provision of a Craft, Creativity and Design Hub within Kildare Town Centre will be done using an existing building in the town centre. Thus, an overall neutral environmental impact has been assessed for this objective, as reuse and regeneration is likely to have minimum negative impacts to the environment. Potential positive impacts have been identified for population and human health, where increased recreational and economic activity may be facilitated as a result. Landscape and visuals are also likely to result in positive impacts in the case that underutilised/ rundown buildings are improved and reused/. If it were the case that new development was proposed to house the hub, it should be noted that any new development has the potential to give rise to negative environmental effects and reference should be made to mitigation measures in Section 9 of this report in this case.



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<b>EDO 1.5</b>	Promote Enterprise and Employment development north and south of the Monasterevin Road focusing on light industry, offices, research and development, within a high-quality business park development supported by the connectivity link detailed on Maps 7.12, 7.2 and 7.5. The development of the lands shall be subject to a Traffic and Transport Assessment to ensure there are no negative impact on the network.									Any new development, even where integrated with existing commercial 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 result in a positive effect on the population, air and climate and material assets as a result of enhanced access to public transport facilities, increased economic activity in Kildare Town and the likelihood that services can be utilised within the existing commercial development area. Potential uncertain impacts have been identified for archaeological, architectural, and cultural heritage and landscape and visual, however, it is not possible to ascertain whether the proposed objective has the potential to result in negative impacts on the environment, as the type, scale and location of the development has not been defined.
<b>EDO 1.6</b>	Facilitate the development of Industry and Warehousing on the lands south of the motorway at Grey Abbey Road for manufacturing, warehousing, distribution, logistics and other uses associated with the transport industry subject to the protection of the carrying capacity of the national road network and a Traffic and Transport Assessment.									Any new development, particularly the development of Industry and Warehousing on lands south of the motorway at Grey Abbey Road for manufacturing, warehousing, distribution, logistics and other uses associated with the transport industry, has the potential to give rise to negative environmental effects.  The developments detailed in this objective largely support vehicular movement and road-based transport, which has potential for negative impacts to air and climate in particular. Refer to mitigation measures in Section 9 of this report. Potential positive impacts have been identified for population and human health where, increased economic activity and employment are likely to be facilitated.

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<b>EDO 1.7</b>	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 public transport and active travel routes, as a means of enlivening streets and to provide flexible accommodation for small businesses and remote working opportunities.									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.  Overall neutral impacts have been assessed as likely to occur for biodiversity, water, land and soil, landscape and visual 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.
<b>EDO 1.8</b>	Incentivise employment creation on lands zoned ‘A: Town Centre’ as a key driver of regeneration, through the application of the Commercial Incentive Grant Scheme (2022) or any successor to same.									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.
<b>EDO 1.9</b>	Ensure that the employment lands zoned in Kildare Town are kept free from inappropriate development that would prejudice the long-term use of the land use zoning objective, except where exceptional circumstances arise for temporary periods.									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 full employment use can be made of the lands zoned as such.
<b>EDO 1.10</b>	Support the examination of the feasibility of Cherryville Junction and Kildare Town to become a transport hub and distribution centre, by maximising its strategic location at the intersection of key national road and rail networks.									As this objective refers to an examination of feasibility for Cherryville Junction and Kildare Town to become a transport hub and distribution centre, it is anticipated that no development will occur over the lifetime of the Plan as a result of this objective. Thus, overall neutral impacts have been assessed as likely to occur.
<b>Tourism Objectives</b>										

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<b>EDO 2.1</b>	Encourage the development of new or the upgrading / extension of tourism activities/facilities including supporting infrastructure, in particular those related to religious tourism, equine tourism, retail tourism, food tourism and military tourism within Kildare Town that respect, respond and enhance their physical location, environmental quality and community setting.									Any new development has the potential to give rise to negative environmental effects. Refer to mitigation measures in Section 9 of this report. Although development is detailed to respect, respond and enhance physical location, environmental quality and community settings, uncertain impacts have been assessed for archaeological and cultural heritage, landscape and visual and material assets as the type, scale and location of the potential development has not been defined. Neutral impacts have been identified for air and climate.
<b>EDO 2.2</b>	Facilitate the provision of standardised signage and interpretation for tourism facilities and tourist attractions throughout the town, ensuring signage is located to facilitate cross-sector promotion between tourist sites.									This objective is likely to result in an overall neutral impact on the environment, as 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.
<b>EDO 2.3</b>	Encourage and support the development of the equine tourism sector in conjunction with Fáilte Ireland through the delivery of projects identified in the Thoroughbred Country: Destination Experience Development Plan, such as the: <ul style="list-style-type: none"> <li>(a) Enhancement of the visitor experience at the Irish National Stud.</li> <li>(b) Creation of a walking trail / greenway from Kildare Town to the Curragh, as part of the International Thoroughbred Trail.</li> <li>(c) Development of the Racing Academy Centre of Education (R.A.C.E.) visitor experience including farriery experiences at the Irish Farriery School.</li> <li>(d) Feasibility of the Kildare Heritage Centre becoming a key orientation hub for the International Thoroughbred Trail supported by an enhanced visitor experience.</li> <li>(e) Creation of festivals / events related to equine tourism.</li> </ul>								Overall uncertain environmental impacts have been identified for this objective, particularly with reference to the creation of a walkway/ greenway from Kildare Town to the Curragh, as part of the International Thoroughbred Trail. Uncertain environmental impacts have been identified as the Curragh is a proposed Natural Heritage Area (Site code: 000392) and so any increased trampling 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.	

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<b>EDO 2.4</b>	Support and promote the inclusion of eateries in Kildare Town as part of a food tourism experiential trail for the county.									<p>For the purposes of this assessment, it is assumed that that the inclusion of eateries in Kildare town will be done using existing buildings in the town centre. Thus, an overall neutral environmental impact has been assessed for this objective, as reuse and regeneration are likely to have minimum negative impacts to the environment.</p> <p>Potential positive impacts have been identified for population and human health, where increased economic activity may be facilitated as a result. If it were the case that new development is proposed to house the eateries, it should be noted that any new development has the potential to give rise to negative environmental effects and reference should be made to mitigation measures in Section 9 of this report in this case.</p>
<b>EDO 2.5</b>	Investigate the re-use of the courthouse building on Dublin Street for a Craft, Creativity and Design Hub or for a mix of cultural, community, leisure and/or tourism uses in conjunction with its use as the Racing Legends Museum.									<p>An overall neutral environmental impact has been identified for this objective where, the re-use of the courthouse building on Dublin Street for a craft, creativity and design hub or for a mix of cultural, community, leisure and/or tourism activities, is likely to have minimal potential for negative impacts on the surrounding environment. Positive impacts have been identified for population and human health, archaeology, architectural and cultural heritage, landscape and visual and material assets where renewal works, and the re-use of an existing building in the town centre is likely to have an overall positive impact to these areas.</p>
<b>EDO 2.6</b>	Facilitate and support the diversification of lands zoned S: Equine Industry for development and expansion of equine tourism at the Racing Academy and Centre of Education.									<p>The diversification and intensification of employment opportunities will have a positive impact on population and human health.</p> <p>A neutral impact on the environment is predicted through increased employment in equine industries and developed linkages between the equine and tourism industries.</p>
<b>Retailing Objectives</b>										

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<b>EDO 3.1</b>	Protect and promote the vitality and viability of the Core Retail Area of Kildare Town as illustrated on Map 5.1 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.									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.
<b>EDO 3.2</b>	Encourage the retention of the retail function of ground floor uses within the Core Retail Area identified on Map 5.1 and carefully consider development which would individually of 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.
<b>EDO 3.3</b>	Support and facilitate the development of retail, retail services and niche retailing in the town centre area, through the development of infill sites and the redevelopment/renewal of under-utilised sites and buildings, at an appropriate scale, with universal access and design.									The provision of new retail services in Kildare Town is likely to result in a positive effect on the population. A likely positive effect is also identified with regards landscape and visual amenity where redevelopment occurs. An overall likely neutral effect on other environmental factors is identified in that development of infill sites and the redevelopment/renewal of under-utilised sites and buildings, at appropriate scale, with universal design is likely to result in minimum environmental impacts as existing buildings are being utilised and renewed. An uncertain impact has been identified for heritage as Kildare Town is inclusive to an Architectural Conservation Area (ACA) and the universal design detailed in this objective may not consider the style of the ACA.
<b>EDO 3.4</b>	Encourage retail development that respects the character of its surroundings by ensuring new shop front and signage design contributes positively to Kildare Towns’ Architectural Conservation Area (ACA) as per the contents of the Kildare Town ACA Statement of Character and which demonstrate the potential									Encouraging retail development that respects the character of its surroundings by ensuring that new shop fronts and signage design contribute positively to Kildare Towns’ Architectural Conservation Area (ACA), is likely to have a positive impact on population and human health, as it enhances the public realm. Potential positive impacts on heritage are also likely in

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	for a flexible and innovative approach to retail formats and other uses.									considering the Councils commitment to have cognisance of the character, heritage and design requirements of the Architectural Conservation Area (ACA), similarly potential positive impacts on landscape and visuals are identified in that cognisance is being made to Kildare towns ACA.
<b>EDO 3.5</b>	Support the continued development of a high quality 'Market' within the town.									This objective will not result in development over the lifetime of the draft Plan and as such, and overall neutral environmental effect is predicted. A positive effect on population is likely to occur as a result of increased tourism and associated economic investment.
<b>EDO 3.6</b>	Ensure the development of the Kildare Tourist Outlet Village is carried out in accordance with the definition of outlet centres as detailed in the Retail Planning Guidelines (2012) (or any subsequent guidelines) to ensure that the products sold are not in competition with those on sale typically in town centre locations.									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.
<b>EDO 3.7</b>	Ensure the scale of retail development within neighbourhood centres shall reflect the size of the localised catchment population within the neighbourhood it is intended to serve.									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 communities can have access to adequate food supplies.
<b>EDO 3.8</b>	Encourage the upkeep of retail properties within Kildare Town through the application of the Kildare County Council Shop Front Improvement, Accessibility and Age Friendly 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 Kildare Town through the application of the Shop Front Grant Scheme, or any successor of same.
<b>Residential Development Objectives</b>										
<b>HCO 1.1</b>	To promote and facilitate the phased development of the Former Magee Barracks site in accordance with the guidance set out in Section 11.1.									Development on the Former Magee Barracks site has been assessed as likely to result in overall neutral impacts.  The site was previously zoned in the Kildare town LAP 2012-2018 as 'Regeneration of Magee Barracks' and the new draft LAP 2023-2029 has zoned the Former Magee Barracks as 'Mixed Use'. Thus, there is minor change to land use zoning for this site and so, the

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										development of the Former Magee Barracks site has been assessed as baseline due to its previous zoning.
<b>HCO 1.2</b>	Support 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 in Table 11-2.									<p>Potential negative impacts have been assessed for this objective as cumulative 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 in Table 11-2.</p> <p>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. A positive impact on population and human health is predicted through increased residential opportunities and likelihood of improved services.</p>
<b>HCO 1.3</b>	Encourage the appropriate redevelopment of brownfield and infill sites for a mix of uses including residential within the footprint of the existing built-up area.									<p>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. 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. It is not possible to ascertain if this objective will result in an impact on landscape and visual, as the type or scale of proposed infill development is not defined. High density development can result in a landscape and visual impact if they are too intrusive.</p>
<b>HCO 1.4</b>	To manage the provision of one-off housing on lands zoned as 'I: Agricultural' and 'G: National Stud and Green Belt'. Limited one-off housing will be permitted in this zone subject to compliance with the rural housing policy of the									As outline in the Rural Housing Policy of the 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:

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	Kildare County Development Plan and all other normal siting and design considerations.									<p><i>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:</i></p> <p><i>demonstrable 'economic or social' need to live in a rural area and build their home, and</i></p> <p><i>siting, environmental and design criteria for rural housing in statutory guidelines and plans</i></p> <p><i>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.</i></p> <p>On this basis, a neutral impact on all environmental aspects is predicted.</p>
<b>Residential Objectives</b>										
<b>HCO 2.1</b>	Require that a good mix of housing types and sizes is provided in all new residential areas and in appropriate brownfield/infill areas, to meet the needs of the population of Kildare Town, including the provision of appropriate supported housing and longer-term residential care solutions designed for older people and/or people with disabilities.									<p>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. 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.</p>
<b>HCO 2.2</b>	Require that residential schemes adjacent to the Curragh Buffer Zone as identified on Map 9.1 provide detailed proposals for appropriate soft boundary treatments which should be in accordance with the criteria set out in Section 9.8 of the Plan.									<p>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 LAP.</p>



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<b>HCO 2.3</b>	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 <sup>45</sup> . 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.									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.
<b>HCO 2.4</b>	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 the Traveller Accommodation Programme 2019-2024.									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. It is not possible to ascertain whether this will have a positive or a negative impact on Biodiversity, land & soils, water, air, noise & climate, heritage and landscape & visual and material assets at this stage of the development. Refer to site specific zoning assessment. A positive effect on the population is identified in through increased opportunities for traveller accommodation.
<b>HCO 2.5</b>	Support the provision of specific purpose-built housing for older people to facilitate 'downsizing' and assisted living accommodation particularly on the Former Magee Barracks site.									Development on the Former Magee Barracks site has been assessed as likely to result in overall neutral impacts. The site was previously zoned in the Kildare town LAP 2012-2018 as 'Regeneration of Magee Barracks' and the new draft LAP 2023-2029 has zoned the Former Magee Barracks site as 'Mixed Use'. Thus, there is minor change to land use zoning for this site and so, the development of the Former Magee Barracks site has been assessed as baseline due to its previous zoning.

<sup>45</sup> <https://gis.epa.ie/EPAMaps/>

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		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA		
<b>Objectives for Education, Childcare and Healthcare Facilities</b>											
<b>HCO 3.1</b>	Support and facilitate new facilities and improvements / expansion of existing educational, early learning, childcare and healthcare facilities, at appropriate locations in Kildare Town.										The lands zoned 'Community and Education' have been assessed as baseline for this objective. Neutral impacts have been assessed as the majority of sites zoned 'Education and Community' have been previously zoned in the Kildare town LAP 2012-2018 as the same.  There are two sites that were previously zoned, one as 'New Residential' and one 'Commercial' in the Kildare LAP 2012-2018. These sites are zoned in the current draft LAP as 'Community and Education', however, as both lands have been previously zoned, impacts have been assessed overall, as a baseline scenario for this objective.
<b>HCO 3.2</b>	Support the provision of appropriately located and purpose-built early learning and childcare facilities to meet the 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 phase of any new residential development.										The lands zoned 'Community and Education' have been assessed as baseline for this objective. Neutral impacts have been assessed as the majority of sites zoned 'Education and Community' have been previously zoned in the Kildare town LAP 2012-2018 as the same.  There are two sites that were previously zoned, one as 'New Residential' and one 'Commercial' in the Kildare LAP 2012-2018. These sites are zoned in the current draft LAP as 'Community and Education', however, as both lands have been previously zoned, impacts have been assessed overall, as a baseline scenario for this objective.
<b>HCO 3.3</b>	Support the delivery of facilities and services for older people, at appropriate locations in Kildare Town, in particular at the Former Magee Barracks.										Development on the Former Magee Barracks site has been assessed as likely to result in overall neutral impacts. The site was previously zoned in the Kildare town LAP 2012-2018 as 'Regeneration of Magee Barracks' and the new draft LAP 2023-2029 has zoned the Former Magee Barracks site as 'Mixed Use'. Thus, there is minor change to land use zoning for this site and so, the development of the Former Magee Barracks site has been assessed as baseline due to its previous zoning.

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		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
<b>HCO 3.4</b>	Actively work with the Department of Education in the successful delivery of a new post-primary school on the Former Magee Barracks site which is in accordance with the urban design framework for the site as detailed in Section 11.1.									Development on the Former Magee Barracks site has been assessed as likely to result in overall neutral impacts. The site was previously zoned in the Kildare town LAP 2012-2018 as 'Regeneration of Magee Barracks' and the new draft LAP 2023-2029 has zoned the Former Magee Barracks site as 'Mixed Use'. Thus, there is minor change to land use zoning for this site and so, the development of the Former Magee Barracks site has been assessed as baseline due to its previous zoning.
<b>HCO 3.5</b>	Liaise with the Department of Education in respect of the identification and delivery of additional capacity/new school for primary school provision to address emerging demands.									The lands zoned 'Community and Education' have been assessed as baseline for this objective. Neutral impacts have been assessed as the majority of sites zoned 'Education and Community' have been previously zoned in the Kildare town LAP 2012-2018 as the same. There are two sites that were previously zoned, one as 'New Residential' and one 'Commercial' in the Kildare LAP 2012-2018. These sites are zoned in the current draft LAP as 'Community and Education', however, as both lands have been previously zoned, impacts have been assessed overall, as a baseline scenario for this objective.
<b>HCO 3.6</b>	Facilitate and encourage the provision of additional healthcare facilities at appropriate locations in Kildare Town in order to address the current deficit in provision 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. 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.
<b>Objectives for Community, Sport, and Recreational Facilities</b>										
<b>HCO 4.1</b>	Support and facilitate the provision of appropriately sited accessible multi-functional community facilities to meet the needs of the population of Kildare Town; including an all-weather Multi-Use Games Area (MUGA) located at the Former Magee Barracks.									Development on the Former Magee Barracks site has been assessed as likely to result in overall neutral impacts. The site was previously zoned in the Kildare town LAP 2012-2018 as 'Regeneration of Magee Barracks' and the new draft LAP 2023-2029 has zoned the Former Magee Barracks site as 'Mixed Use'. Thus, there is minor change to land use zoning for this site and so, the development of the

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										Former Magee Barracks site has been assessed as baseline due to its previous zoning.
<b>HCO 4.2</b>	Support the delivery of a public park at Cherry Avenue to accommodate a perimeter path catering for pedestrians and cyclists, demonstration gardens, community garden, amphitheatre, land art feature, playground, pump track, wetlands and extensive tree planting and ensure the delivery of Phase 1 of Cherry Avenue Park within the first year of this Plan.									Overall neutral impacts have been assessed for this objective as it relates to minor development 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. Positive impacts have also been assessed for biodiversity where wetlands and extensive tree planting will be facilitated.
<b>HCO 4.3</b>	Support, promote and facilitate the development of cultural, arts and performance spaces in Kildare Town centre.									Overall, neutral impacts have been assessed as likely to result from this objective as Kildare town centre consists of hardstanding urban areas. This objective will however likely result in a positive impact on population and human health through enhanced provision of facilities.
<b>HCO 4.4</b>	Facilitate sports and community groups in the acquisition and/or use of lands for sports and recreation purposes.									As the proposed objective would not result in any development, a neutral impact on the environment is envisaged. A positive impact on population and human health is predicted through provision of new amenity opportunities.
<b>HCO 4.5</b>	Facilitate the development of a network of universally designed playgrounds, amenity spaces and recreational areas throughout the town in accordance with Table 6-3.									The development of a network of playgrounds, amenity spaces and recreational areas are likely to have a positive impact on population and human health; however, dependant on the sites identified for infrastructure detailed in Table 6-3, where previous land use zonings have stayed the same or similar to the previous Kildare town LAP 2012-2018, overall neutral impacts are assessed, and zoning is taken as baseline.  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.

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<b>HCO 4.6</b>	Develop the lands immediately north of St Brigid's Cathedral and east of Chapel Hill as a small medieval garden.									Although no major development is anticipated in developing a park on the lands immediately north of St Brigid's Cathedral and east of Chapel Hill as a small medieval garden, biodiversity in this area may be negatively impacted upon where a landscaped lawn is likely to be maintained for a park of this nature. Neutral impacts have been identified for land and soil, water, air and climate and material assets, where no major development is likely to occur and so, damage to these environmental components is unlikely. Potential positive impacts have been assessed for landscape and visuals where increased open space and maintained park land will be facilitated. Potential positive impacts on population and human health are also predicted through provision of new recreational areas.
<b>HCO 4.7</b>	Improve existing open space areas in housing developments that have been taken in charge by Kildare County Council and to provide additional play facilities where feasible and appropriate.									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 improvement of existing open space areas in housing developments.
<b>HCO 4.8</b>	Support and facilitate the development of a neighbourhood centre off Southgreen Road which caters to the localised needs of residents residing in the area.									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.  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.
<b>HCO 4.9</b>	Facilitate the development of a future extension of St Conleth's Graveyard to provide for additional capacity subject to detailed design, environmental assessment and considerations of proper planning.									An overall neutral impact has been assessed for this objective where any works are subject to detailed design, environmental assessment and considerations of proper planning, as detailed.  Potential negative impacts to land and soil have been assessed, where disruptions to soil are likely to occur continually over the lifetime of the Plan.
<b>Permeability Measures</b>										

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		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
<b>PERM 1</b>	Shared walking/cycling path on one side of Rathbride Road from Rathbride Abbey to Cill Dara Golf Club – Short-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>PERM 2</b>	Create a pedestrian / cyclist link from Rathbride Abbey onto Rathbride Demesne - Short-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>PERM 3</b>	Install new footpaths across the green area to provide formal connections between Oakland Grove, Dunmurry View and Farrincooley Crescent – Short-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>PERM 4</b>	Create a pedestrian / cyclist link connecting Rathbride Close to Drumcree Court – Short-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>PERM 5</b>	Creation of a northwestern Greenway linking from the Monasterevin Road (R445) to the Dunmurry Road (R401) and connecting with Green Road, Southgreen Road and Old Road - Long-term delivery timeframe - linked to residential development in local area.									The provision of a greenway area will have a beneficial impact on population and human health as well as air quality, noise and climate. However, there is the potential for negative impacts on other environmental aspects as man-made features such as greenways can result in a negative impact on existing biodiversity and or surface water quality through increased human interaction and the construction stages of the greenway.

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<b>PERM 6</b>	Extend footpaths along Southgreen Road north of the Train Line to connecting with the Greenway proposed under PERM 5 - Medium-term delivery timeframe - linked to residential & greenway development.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally in relation to minor footpath developments. However, cumulative negative impacts may be likely as a result of this measure, as the footpaths detailed will connect to the greenway development outlined in PERM 5.
<b>PERM 7</b>	Creation of pedestrian / cyclist link connecting Fennor Lawns with North Glebe – Medium term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>PERM 8</b>	Creation of pedestrian / cyclist link connecting Drumcree Court with Curragh Finn – Short-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>PERM 9</b>	Creation of pedestrian / cyclist link connecting North Glebe with Curragh Finn – Short-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.

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<b>PERM 10</b>	Extend existing footpath north along Green Road to connection with Greenway proposed under PERM 5 - Long-term delivery timeframe - linked to greenway development.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally in relation to minor footpath developments. However, cumulative negative impacts may be likely as a result of this measure, as the footpaths detailed will connect to the greenway development outlined in PERM 5.
<b>PERM 11</b>	Creation of a new east west Greenway extending along the Rail line connecting with the northwestern greenway proposed under PERM 5 at its western most and extending to connect with a new pedestrian footbridge proposed under PERM 12 connecting with Melitta Road (R413) – Long term delivery timeframe.									The provision of a greenway area will have a beneficial impact on population and human health as well as air quality, noise and climate.  There is the potential for negative impacts on other environmental aspects as man-made features such as greenways can result in a negative impact on existing biodiversity and or surface water quality through increased human interaction and the construction stages of the greenway. However, as this greenway is detailed to extend along an existing rail line it is anticipated that neutral environmental impacts are likely to occur.
<b>PERM 12</b>	Creation of a new pedestrian / cyclist link connecting the proposed east west greenway under PERM 11 with Melitta Road (R413). This option involves a new pedestrian bridge over the rail line - Long-term delivery timeframe - linked to development of greenway.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally in relation to minor footpath developments.  However, negative impacts to all environmental components are likely where a new pedestrian bridge is involved. Further, cumulative negative impacts may be likely as a result of this measure, as the footpaths detailed will connect to the greenway development outlined in PERM 11.



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<b>PERM 13</b>	Creation of a new pedestrian / cyclist links connecting Curragh Finn and Dunmurry Drive to Kildare Town Train Station – Short-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>PERM 14</b>	New pedestrian cycle link connecting Green Road with Southgreen Road and the newly constructed Southgreen Link Road – Medium-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>PERM 15</b>	Construction of a new pedestrian / cycle bridge over the Train Line Connecting the East West Greenway proposed under PERM 11 and Woodside Park – Long-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Potential negative impacts to all environmental components are likely where a new pedestrian bridge is involved. Further, cumulative negative impacts may be likely as a result of this measure, as the bridge detailed will connect to the greenway development outlined in PERM 11.
<b>PERM 16</b>	Creation of pedestrian / cyclist link connecting Woodside Park to Station Road – Short-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.

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<b>PERM 17</b>	Creation of new multi modal access to Kildare Town Train Station on the western end of Fair Green Road – Medium-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be increased accessibility in the area for different modes of transport which has potential to reduce vehicular movements and promote active travel. Otherwise, overall potential neutral impacts are anticipated, as for the purpose of this assessment it is not anticipated that any major development will take place.
<b>PERM 18</b>	Phase 1 of Former Magee Barracks internal road network – Medium term delivery timeframe.									Development on the Former Magee Barracks site has been assessed as likely to result in overall neutral impacts. The site was previously zoned in the Kildare town LAP 2012-2018 as ‘Regeneration of Magee Barracks’ and the new draft LAP 2023-2029 has zoned the Former Magee Barracks site as ‘Mixed Use’. Thus, there is minor change to land use zoning for this site and so, the development of the Former Magee Barracks site has been assessed as baseline due to its previous zoning.
<b>PERM 19</b>	Phase 2 of Former Magee Barracks internal road network – Long-term delivery timeframe.									Development on the Former Magee Barracks site has been assessed as likely to result in overall neutral impacts. The site was previously zoned in the Kildare town LAP 2012-2018 as ‘Regeneration of Magee Barracks’ and the new draft LAP 2023-2029 has zoned the Former Magee Barracks site as ‘Mixed Use’. Thus, there is minor change to land use zoning for this site and so, the development of the Former Magee Barracks site has been assessed as baseline due to its previous zoning.
<b>PERM 20</b>	Creation of pedestrian / cyclist link connecting Curragh Plains, Coolaghknock Green and Melitta Park to Phase 2 of the Magee Barracks internal road network - Long-term delivery timeframe linked to development of Former Magee Barracks Phase 2.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.

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<b>PERM 21</b>	Pedestrian links delivered as part of Phase 1 of Former Magee Barracks redevelopment – Medium-term delivery timeframe.									Development on the Former Magee Barracks site has been assessed as likely to result in overall neutral impacts. The site was previously zoned in the Kildare town LAP 2012-2018 as ‘Regeneration of Magee Barracks’ and the new draft LAP 2023-2029 has zoned the Former Magee Barracks site as ‘Mixed Use’. Thus, there is minor change to land use zoning for this site and so, the development of the Former Magee Barracks site has been assessed as baseline due to its previous zoning.
<b>PERM 22</b>	Creation of pedestrian / cyclist link connecting Phase 1 of Former Magee Barracks internal roads to Schools - Medium-term delivery timeframe – linked to Phase 1 of Magee Barracks Road.									Development on the Former Magee Barracks Site has been assessed as likely to result in overall neutral impacts. The site was previously zoned in the Kildare town LAP 2012-2018 as ‘Regeneration of Magee Barracks’ and the new draft LAP 2023-2029 has zoned the Former Magee Barracks site as ‘Mixed Use’. Thus, there is minor change to land use zoning for this site and so, the development of the Former Magee Barracks site has been assessed as baseline due to its previous zoning.
<b>PERM 23</b>	Creation of pedestrian / cyclist link connecting Coolaghknock Park, Coolaghknock Close, Coolaghknock Drive and Coolaghknock Gardens together - Medium-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>PERM 24</b>	Creation of pedestrian / cyclist link connecting Ruanbeg to Coolaghknock Gardens – Short-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.

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<b>PERM 25</b>	Creation of pedestrian / cyclist link connecting Ruanbeg Drive to Phase 2 of the Former Magee Barracks internal roads - Long-term delivery timeframe.									Development on the Former Magee Barracks site has been assessed as likely to result in overall neutral impacts. The site was previously zoned in the Kildare town LAP 2012-2018 as 'Regeneration of Magee Barracks' and the new draft LAP 2023-2029 has zoned the Former Magee Barracks site as 'Mixed Use'. Thus, there is minor change to land use zoning for this site and so, the development of the Former Magee Barracks site has been assessed as baseline due to its previous zoning.
<b>PERM 26</b>	Creation of pedestrian / cyclist link connecting Kildare Village Car Park to Kildare Village Bus Stop on the R415 - Short-term delivery timeframe - to improve access to Bus Stop.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>PERM 28<sup>46</sup></b>	Creation of pedestrian / cyclist link from Phase 3 of Kildare Village to Academy Street – Medium-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>PERM 29</b>	Creation of pedestrian / cyclist link from Bride Street to Main Street via newly proposed car park - Short / Medium-term delivery timeframe - Linked to the relocation of on street parking.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development. However, there is potential for cumulative negative impacts in combination with the newly proposed car park. However, there is potential for

<sup>46</sup> PERM 27- internal pedestrian link delivered as part of Phase 3 of Kildare Village, has been deleted as it has been implemented since the Kildare Town Transport Strategy was finalised.

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										negative impacts on heritage as the development of cycle infrastructure may impact the protected structures in Kildare town centre.
<b>PERM 30</b>	Creation of pedestrian / cyclist link connecting Dublin Street to Meadow Road – Short-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development. However, there is potential for negative impacts on heritage as the development of cycle infrastructure may impact the protected structures in Kildare town centre.
<b>PERM 31</b>	Creation of pedestrian / cyclist link connecting Meadow Court to Rathbride Demesne – Short-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>PERM 32</b>	Install new footpaths across the green area to provide formal connections between Farrincooley Crescent and Willow Grove – Short-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>PERM 33</b>	Install new footpaths along Old Road connecting to the Dunmurry Link Road – Medium-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.

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<b>PERM 34</b>	Road Scheme with footpaths connecting Hospital Street to Tully Road – Medium-term delivery timeframe.									<p>There is the potential for negative impacts to occur where new road infrastructure is proposed. Proposed new road linkages are likely to result in a negative air quality, noise, and climate impacts due to both the materials used in construction, but also by means of the encouragement of private vehicle use. Significant negative impacts are also likely for biodiversity, land and soil, water, landscape and visual and heritage where significant development is likely to occur and is likely to disrupt the natural environment and surrounding areas.</p> <p>Positive impacts are likely for population and human health and materials where increased connectivity within Kildare town is likely to be facilitated, amongst enhanced transport facilities.</p>
<b>PERM 35</b>	Road Scheme with footpaths - Modus Link Road - Medium-term delivery timeframe.									<p>There is the potential for negative impacts to occur where new road infrastructure is proposed. Proposed new road linkages are likely to result in a negative air quality, noise, and climate impacts due to both the materials used in construction, but also by means of the encouragement of private vehicle use. However, link roads may also relieve congestion on primarily congested roadways which is a positive. Significant negative impacts are also likely for biodiversity, land and soil, water, landscape and visual and heritage where significant development is likely to occur and is likely to disrupt the natural environment and surrounding areas.</p> <p>Positive impacts are likely for population and human health and materials where increased connectivity within Kildare town is likely to be facilitated, amongst enhanced transport facilities.</p>

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<b>PERM 36</b>	Road Scheme with footpaths - Northern Link Street - Medium-term delivery timeframe.									<p>There is the potential for negative impacts to occur where new roads schemes 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, but also by means of the encouragement of private vehicle use. Significant negative impacts are also likely for biodiversity, land and soil, water, landscape, and visual and heritage where significant development will be occurring and is likely to disrupt the natural environment and surrounding areas.</p> <p>Positive impacts are likely for population and human health and materials where increased connectivity within Kildare town is likely to be facilitated, amongst enhanced transport facilities.</p>
<b>PERM 37</b>	Creation of pedestrian / cyclist link connecting Grey Abbey Road with Tully Road - Long-term delivery timeframe.									<p>A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land &amp; soils, water, heritage, landscape &amp; visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.</p>
<b>PERM 38</b>	Pedestrian links included in Cherry Avenue Park - Long-term delivery timeframe.									<p>A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land &amp; soils, water, heritage, landscape &amp; visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.</p>
<b>PERM 39</b>	Creation of walking/cycling only link as part of Modus Link Road development – Medium-term.									<p>A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land &amp; soils, water, heritage, landscape &amp; visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.</p>

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
<b>PERM 40</b>	Construction of a new pedestrian / cycle bridge over the M7 connecting with the National Stud and Japanese Gardens - Long-term.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Potential negative impacts to all environmental components are likely where a new pedestrian bridge is involved. and particularly where the development is located in areas of biodiversity sensitivity such as the National Stud and Japanese Gardens.
<b>PERM 41</b>	Link between Oaktree Road and Cherry Avenue Park – Long-term delivery timeframe.									For the purposes of this assessment, it is assumed the link referred to in this measure is a cyclist/pedestrian link. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>PERM 42</b>	Extension of footpaths along Melitta Rd (R413) from Ridgewood Manor to the edge of the Curragh – Short-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycling Measures</b>										
<b>Cycle 1</b>	Curragh Greenway (towards Newbridge via Racecourse) – Greenway Link Type – Long-term delivery timeframe.									The provision of a greenway area will have a beneficial impact on population and human health as well as air quality, noise and climate. However, there is the potential for negative impacts on other environmental aspects as man-made features such as greenways can result in a negative impact on existing biodiversity and or surface water quality through increased human interaction and the construction stages of the greenway. Refer to Mitigation Measures in Section 9.



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		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
<b>Cycle 2</b>	Connection from east-west Greenway to Melitta Road – Greenway Link Type – Long-term delivery timeframe.									For the purpose of this assessment, it is assumed that this measure relates to cycle lane/ track infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development
<b>Cycle 3</b>	East-west Greenway along the rail line – Greenway Link Type – Long-term delivery timeframe.									The provision of a greenway area will have a beneficial impact on population and human health as well as air quality, noise and climate. There is the potential for negative impacts on other environmental aspects as man-made features such as greenways can result in a negative impact on existing biodiversity and or surface water quality through increased human interaction and the construction stages of the greenway. However, as this greenway is detailed to extend along an existing rail line it is anticipated that neutral environmental impacts are likely to occur.
<b>Cycle 4</b>	Tully Road (middle section) – Greenway Link Type – Long-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development
<b>Cycle 5</b>	R445 to proposed M7 crossing via Cherry Avenue Park – Greenway Link Type – Long-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development

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<b>Cycle 6</b>	Greenway connection from Tully Road to Grey Abbey Road – Greenway Link Type – Long-term delivery timeframe.									The provision of a greenway area will have a beneficial impact on population and human health as well as air quality, noise and climate. However, there is the potential for negative impacts on other environmental aspects as man-made features such as greenways can result in a negative impact on existing biodiversity and or surface water quality through increased human interaction and the construction stages of the greenway. Refer to Mitigation Measures in Section 9
<b>Cycle 7</b>	Northwestern Greenway – Greenway Link Type – Linked to residential development.									The provision of a greenway area will have a beneficial impact on population and human health as well as air quality, noise and climate. However, there is the potential for negative impacts on other environmental aspects as man-made features such as greenways can result in a negative impact on existing biodiversity and or surface water quality through increased human interaction and the construction stages of the greenway. Refer to Mitigation Measures in Section 9
<b>Cycle 8</b>	Connection from Green Road to Southgreen Road – Greenway Link Type – Linked to residential development.									The provision of a greenway area will have a beneficial impact on population and human health as well as air quality, noise and climate. However, there is the potential for negative impacts on other environmental aspects as man-made features such as greenways can result in a negative impact on existing biodiversity and or surface water quality through increased human interaction and the construction stages of the greenway.
<b>Cycle 9</b>	R413 Melitta Road (middle section) - Cycle track/ cycle lane link type - Short-medium term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.

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		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
<b>Cycle 10</b>	Dublin Road (Meadow Road to Curragh) - Cycle track/ cycle lane link type - Short-medium term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycle 11</b>	Monasterevin Road/Main Street R445 - Cycle track/ cycle lane link type - Short-medium term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycle 12</b>	Monasterevin Road R445 (western section) - Cycle track/ cycle lane link type - Long term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycle 13</b>	Rathbride Road R415 - Cycle track/ cycle lane link type - Long term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycle 14</b>	Dunmurry Road R401 (northern section - Bishopsland to KTCS) - Cycle track/ cycle lane link type - Medium term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.

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<b>Cycle 15</b>	Dunmurry Road R401 (Dunmurry Link Road to Dunmurry Drive) - Cycle track/ cycle lane link type - Short term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycle 16</b>	Rathbride Demesne - Cycle track/ cycle lane link type - Medium term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycle 17</b>	R415 (Monasterevin Road to Kildare Village) - Cycle track/ cycle lane link type - Medium term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycle 18</b>	Bride Street - St. Brigid's Primary School to Market Square - Cycle track/ cycle lane link type - Short term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycle 19</b>	Grey Abbey Road (southern section adjacent to development lands) - Cycle track/ cycle lane link type - Long term delivery timeframe..									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.

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<b>Cycle 20</b>	Green Road (western section) - Cycle track/ cycle lane link type - Long term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycle 21</b>	Tully Road (section adjacent to National Stud) - Cycle track/ cycle lane link type - Long term delivery timeframe. .									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycle 22</b>	Dunmurry Road R401 (southern section - Fairgreen Road to Old Road) - Cycle track/ cycle lane link type - Medium term delivery timeframe. .									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycle 23</b>	Monasterevin Road (section forming part of Northern Link Street scheme) - Cycle track/ cycle lane (part of road scheme) link type - Medium term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycle 24</b>	Northern Link Street (R445 to Green Road/Pigeon Lane junction) - Cycle track/ cycle lane (part of road scheme) link type - Medium term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.

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		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
<b>Cycle 25</b>	Green Road (Pigeon Lane to Southgreen Road junction) - Cycle track/ cycle lane (part of road scheme) link type - Medium term delivery timeframe. .									For the purpose of this assessment, it is assumed this measure relates to cycle track/ lane infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle infrastructure is likely to constitute minor development.
<b>Cycle 26</b>	Bothar na gCorp - Cycle track/ cycle lane (part of road scheme) link type - Medium term delivery timeframe. .									For the purpose of this assessment, it is assumed this measure relates to cycle track/ lane infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle infrastructure is likely to constitute minor development.
<b>Cycle 27</b>	Fairview Cottages R401 (southern section) - Cycle track/ cycle lane (part of road scheme) link type - Medium term delivery timeframe.									For the purpose of this assessment, it is assumed this measure relates to cycle track/ lane infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle infrastructure is likely to constitute minor development.
<b>Cycle 28</b>	Southgreen Road Upgrade - Cycle track/ cycle lane (part of road scheme and bridge upgrade) link type - Medium term delivery timeframe.									For the purpose of this assessment, it is assumed this measure relates to cycle track/ lane infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle infrastructure is likely to constitute minor development.
<b>Cycle 29</b>	Former Magee Barracks Phase 1 - Cycle track/ cycle lane (part of road scheme) link type - Medium term delivery timeframe..									Development on the Former Magee Barracks site has been assessed as likely to result in overall neutral impacts. The site was previously zoned in the Kildare town LAP 2012-2018 as 'Regeneration of Magee Barracks' and the new draft LAP 2023-2029 has zoned Former Magee Barracks site as 'Mixed Use'.

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
										Thus, there is minor change to land use zoning for this site and so, the development of the Former Magee Barracks Site has been assessed as baseline due to its previous zoning. Potential positive impacts have however been assessed for landscape and visuals as this objective will ensure attractive walking and cycling routes are a fundamental element of the redevelopment of the Former Magee Barracks.
<b>Cycle 30</b>	Former Magee Barracks Phase 2 - Cycle track/ cycle lane (part of road scheme) link type - Long term delivery timeframe.									Development on the Former Magee Barracks site has been assessed as likely to result in overall neutral impacts. The site was previously zoned in the Kildare town LAP 2012-2018 as 'Regeneration of Magee Barracks' and the new draft LAP 2023-2029 has zoned Former Magee Barracks site as 'Mixed Use'. Thus, there is minor change to land use zoning for this site and so, the development of the Former Magee Barracks site has been assessed as baseline due to its previous zoning. Potential positive impacts have however been assessed for landscape and visuals as this objective will ensure attractive walking and cycling routes are a fundamental element of the redevelopment of the Former Magee Barracks.
<b>Cycle 31</b>	Modus Link Road - Cycle track/ cycle lane (part of road scheme) link type - Medium term delivery timeframe..									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets are likely to be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development. However, there is potential for cumulative negative impacts on the aforementioned environmental components if the cycle track/lane forms a part of a road scheme, as no precise detail for the development is provided, overall uncertain impacts are anticipated.

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<b>Cycle 32</b>	Hospital Street to Oaktree Road - Cycle track/ cycle lane (part of road scheme) link type - Medium term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets are likely to be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development. However, there is potential for cumulative negative impacts on the aforementioned environmental components if the cycle track/lane forms a part of a road scheme, as no precise detail for the development is provided, overall uncertain impacts are anticipated.
<b>Cycle 33</b>	Old Road - active mode priority as closure of Old Road Bridge will eliminate through traffic - Active mode priority, local vehicle access, short-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area and increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected by the closure of the Old Road Bridge.
<b>Cycle 34</b>	Lourdesville - active mode priority/elimination of through traffic as part of Northern Link Street scheme - Active mode priority, local vehicle access, medium-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area and increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected by the active mode priority/elimination of through traffic.
<b>Cycle 35</b>	Market Square (west) - active mode priority through elimination of through traffic - Active mode priority, local vehicle access, short-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area and increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected by the active mode priority/elimination of through traffic. However, there is potential for negative impacts on heritage as the development of cycle infrastructure may impact the protected structures in Kildare town centre.



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<b>Cycle 36</b>	Bride Street section of Market Square - TBD by detailed study, Short-term, Active mode priority, Long-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area and increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected by the active mode priority/elimination of through traffic. However, there is potential for negative impacts on heritage as the development of cycle infrastructure may impact the protected structures in Kildare town centre.
<b>Cycle 37</b>	Fire Castle Lane improvement - TBD by detailed study, short-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian improvements are likely to constitute minor development. However, there is potential for negative impacts on heritage as the development of cycle infrastructure may impact the protected structures in Kildare town centre.
<b>Cycle 38</b>	Chapel Hill/Chapel Lane improvement - TBD by detailed study, medium-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian improvements are likely to constitute minor development. However, there is potential for negative impacts on heritage as the development of cycle infrastructure may impact the protected structures in Kildare town centre.
<b>Cycle 39</b>	Fairview Cottages R401 improvement - TBD by detailed study, medium-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian improvements are likely to constitute minor development.

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<b>Cycle 40</b>	Dunmurry Road (rail bridge section) - TBD by detailed study, short-term delivery timeframe.									For the purpose of this assessment, it is assumed the reference made to Dunmurry Road (rail bridge section) relates to the inclusion of cycle infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area and increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycle 41</b>	Station Road (north of Bride Street) - TBD by detailed study, short-term delivery timeframe.									For the purpose of this assessment, it is assumed the reference made to Station Road (north of Bride Street) relates to the inclusion of cycle infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area and increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development. However, there is potential for negative impacts on heritage as the development of cycle infrastructure may impact the protected structures in Kildare town centre.
<b>Cycle 42</b>	Bride Street (section south of school) - TBD by detailed study, short-term delivery timeframe.									For the purpose of this assessment, it is assumed the reference made to Bride Street (section south of school) relates to the inclusion of cycle infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area and increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development. However, there is potential for negative impacts on heritage as the development of cycle infrastructure may impact the protected structures in Kildare town centre.

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<b>Cycle 43</b>	Grey Abbey Road (northern section) - TBD by detailed study, long-term delivery timeframe.									For the purpose of this assessment, it is assumed this objective relates to the inclusion of cycle infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area and increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development. However, there is potential for negative impacts on heritage as the development of cycle infrastructure may impact the protected structures in Kildare town centre.
<b>Cycle 44</b>	Bride Street (Cleamore Road to Tully Road) - TBD by detailed study, short-term delivery timeframe.									For the purpose of this assessment, it is assumed this objective relates to the inclusion of cycle infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area and increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development. However, there is potential for negative impacts on heritage as the development of cycle infrastructure may impact the protected structures in Kildare town centre.
<b>Cycle 45</b>	Main Street (Meadow Road to Beechgrove) - TBD by detailed study, short-medium term delivery timeframe.									For the purpose of this assessment, it is assumed this objective relates to the inclusion of cycle infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area and increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development. However, there is potential for negative impacts on heritage as the development of cycle infrastructure may impact the protected structures in Kildare town centre.

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<b>Cycle 46</b>	Oaktree Road improvement - TBD by detailed study, medium-term delivery timeframe.									For the purpose of this assessment, it is assumed this objective relates to the inclusion of cycle infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area and increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycle 47</b>	Green Road (eastern part) - TBD by detailed study, medium-term delivery timeframe.									For the purpose of this assessment, it is assumed this objective relates to the inclusion of cycle infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area and increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycle 48</b>	Pidgeon Lane improvement - TBD by detailed study, one way, medium-term delivery timeframe.									For the purpose of this assessment, it is assumed this objective relates to the inclusion of cycle infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area and increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development. However, there is potential for negative impacts on heritage as the development of cycle infrastructure may impact the protected structures in Kildare town centre.
<b>Cycle 49</b>	Friary Road improvement - TBD by detailed study, medium-term delivery timeframe.									For the purpose of this assessment, it is assumed this objective relates to the inclusion of cycle infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area and increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.

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<b>Cycle 50</b>	White Abbey Road improvement - TBD by detailed study, one way, medium-term delivery timeframe.									For the purpose of this assessment, it is assumed this objective relates to the inclusion of cycle infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area and increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycle 51</b>	Fair Green Road improvement- TBD by detailed study, one way, short-term delivery timeframe.									For the purpose of this assessment, it is assumed this objective relates to the inclusion of cycle infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area and increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycle 52</b>	Meadow Road improvement – TBD by detailed study, short-term delivery timeframe.									For the purpose of this assessment, it is assumed this objective relates to the inclusion of cycle infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area and increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development. However, there is potential for negative impacts on heritage as the development of cycle infrastructure may impact the protected structures in Kildare town centre.
<b>Cycle 53</b>	New pedestrian/cycle bridge connecting proposed east-west Greenway with Woodside Park – new bridge, long-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cycle links. Potential negative impacts to all environmental components are likely where a new pedestrian bridge is involved.

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
<b>Cycle 54</b>	Eastern rail line pedestrian / cycle (greenway) bridge – new bridge, long-term delivery timeframe.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through new bridge infrastructure for pedestrians and cyclists. Biodiversity, land and soils, water, heritage, landscape and visual and material assets have potential to be negatively impacted as bridge infrastructure is likely to constitute significant development.
<b>Cycle 55</b>	M7 crossing from proposed Cherry Avenue Park to potential link to Irish National Stud and Gardens – new bridge, long-term delivery timeframe.									For the purpose of this assessment, it is assumed that the crossing detailed relates to a cycle/ pedestrian crossing of an existing overpass/ bridge. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through new crossing infrastructure for pedestrians and cyclists. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.  However, there is potential for negative impacts on heritage as the development of cycle infrastructure, particularly where development is likely to be in proximity to areas of sensitivity such as the Irish National Stud and Gardens.
<b>Cycle 56</b>	Tully Road M7 Crossing – Shared cycle / walking path, long-term delivery timeframe.									For the purpose of this assessment, it is assumed that the crossing detailed relates to a cycle/ pedestrian crossing of an existing overpass/ bridge. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through new crossing infrastructure for pedestrians and cyclists. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycle 57</b>	Rathbride Abbey to Kildare Golf Club– Shared cycle / walking path, long-term delivery timeframe.									For the purpose of this assessment, it is assumed that this objective relates to cycle infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area and increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
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										neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Cycle 58</b>	Link between Oaktree Road and Cherry Avenue Park – Greenway link, long-term delivery timeframe.									For the purpose of this assessment, it is assumed that the crossing detailed relates to a cycle/ pedestrian crossing of an existing overpass/ bridge. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through new crossing infrastructure for pedestrians and cyclists. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Walking and Cycling Objectives</b>										
<b>MTO 1.1</b>	Support and promote the use of sustainable active transport modes in Kildare Town and seek to implement a connected network of walking and cycling infrastructure in the town as detailed in Table 7-1 and 7-2 and illustrated on Map 7.1 and 7.2. in conjunction with the National Transport Authority, other statutory agencies, and relevant stakeholders. The indicative measures will form the basis for individual projects, when the detailed design will be configured, and each project will be subjected to rigorous analysis, including environmental / ecological assessment, where applicable, to ensure that they are the most suitable option at the particular location. All measures will be designed in accordance with a public realm palette devised for the town by the Council's Strategic Projects and Public Realm team and shall incorporate nature-based surface water management as a solution for surface water management.									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 7-1 and Table 7-2 and illustrated in Map 7.1 and Map 7.2 of the draft LAP have been assessed at high-level in this assessment table under Permeability Measures and the Cycling Measures.

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
<b>MTO 1.2</b>	Deliver a linkage between the town centre and the Kildare Tourist Village Outlet as detailed on Map 7.1.									For the purpose of this assessment, it is assumed this objective relates to the inclusion of cycle infrastructure. A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area and increased pedestrian and cycle links. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development. However, there is potential for negative impacts on heritage as the development of cycle infrastructure may impact the protected structures in Kildare town centre.
<b>MTO 1.3</b>	Ensure all footpaths in Kildare Town are accessible to all members of the community, including people with disabilities, older persons and people with young children.									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 provision of a more accessible public realm.
<b>MTO 1.4</b>	Ensure that all development allows for connectivity (pedestrian, and cyclist) 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.
<b>MTO 1.5</b>	Ensure new developments are permeable for walking and cycling and seek the retrospective implementation of walking and cycling facilities in existing neighbourhoods, where possible, in order to give competitive advantage to sustainable mobility.									Through maximising connectivity for pedestrians and cyclists, where increased permeability is likely to be facilitated, a positive impact on population and human health and air noise and climate is anticipated through increased sustainable transport opportunities. Otherwise, overall neutral environmental impacts have been assessed for this objective.



Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
<b>MTO 1.6</b>	Ensure attractive walking and cycling routes are a fundamental element of the redevelopment of the Former Magee Barracks in conjunction with the measures detailed in Table 7-1 and 7-2 and illustrated on Map 7.1 and 7.2.									Development on the Magee Barracks has been assessed as likely to result in overall neutral impacts. The site was previously zoned in the Kildare town LAP 2012-2018 as ‘Regeneration of Magee Barracks’ and the new draft LAP 2023-2029 has zoned Magee Barracks as ‘Mixed Use’. Thus, there is minor change to land use zoning for this site and so, the development of Magee Barracks has been assessed as baseline due to its previous zoning. Potential positive impacts have however been assessed for landscape and visuals as this objective will ensure attractive walking and cycling routes are a fundamental element of the redevelopment of the Former Magee Barracks.  The measures included in Table 7-1 and Table 7-2 and illustrated on Map 7.1 and 7.2 of the draft LAP have been assessed at high-level in this assessment table under Permeability Measures and the Cycling Measures.
<b>MTO 1.7</b>	Investigate the feasibility of the provision of a bike hire scheme to connect Kildare Town Train station - Market Square - Cherry Avenue Park (when completed) and to historic sites.									As this objective refers to an investigating the feasibility of the provision of a bike hire scheme to connect Kildare Town Train station - Market Square - Cherry Avenue Park (when completed) and to historic sites, it is anticipated that no development will occur over the lifetime of this Plan as a result of this objective. Thus, overall neutral impacts have been assessed as likely to occur.
<b>MTO 1.8</b>	Seek to improve and promote looped walks in conjunction with Slí na Sláinte and other relevant bodies recognising them as important health and recreation infrastructure within the town. Ensure the routes are clearly demarcated and have a high-quality surface with sufficient lighting, signage and priority at junctions.									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.
<b>MTO 1.9</b>	Support the implementation of complementary active travel measures such as the crossing facilities throughout the town, as identified in the Kildare Town Transport Strategy, in tandem with a review of footpaths on approach roads and greater signal priority for active travel.									A positive impact on population and human health as well as air noise and climate are predicted through the implementation of complimentary active travel measures such as the crossing facilities throughout the town, as identified in the Kildare Town Transport Strategy, in tandem with a review of footpaths on approach roads and greater signal priority for active travel. Otherwise, a neutral impact on all other aspects of the environment has been identified.

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
<b>MTO 1.10</b>	Support St Brigid's Primary School and any other schools in their applications under the Safe Route to School Programme.									A positive impact on population and human health as well as air noise and climate are predicted in supporting St Brigid's Primary School and any other schools in their applications under the Safe Route to School Programme and facilitating safety and active travel measures for school children. Otherwise, a neutral environmental impact has been identified for this objective.
<b>MTO 1.11</b>	Ensure the provision of footpaths and improvement works (and cycle track / cycle lane where appropriate) on both sides of the R445 Dublin Road.									A positive impact on population and human health and air, noise and climate is likely as there will be reduced traffic levels and increased connectivity in the area, through increased pedestrian and cyclist infrastructure. Biodiversity, land & soils, water, heritage, landscape & visual and material assets will be neutrally affected as cycle/ pedestrian infrastructure is likely to constitute minor development.
<b>Public Transport Measures</b>										
<b>PT 1</b>	Bus Transfer Point - Extension of route 126 to R415 outside Kildare Village to create bus transfer point with Dublin Coach services. Short-term.									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. It is assumed that the transfer point here refers to bus shelter and potentially additional signage and constitutes minor development. Thus, a neutral impact on the environment is anticipated.
<b>PT 2</b>	Bus Transfer Point - Extend Dublin Coach services and route 126 to serve a transfer point within Kildare Village <sup>47</sup> . Medium to long-term.									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. It is assumed that the transfer point here refers to bus shelter and potentially additional signage and constitutes minor development. Thus, a neutral impact on the environment is anticipated.

<sup>47</sup> It should be noted that implementation of PT2 is contingent on the opening of the permeability link that would connect Kildare Village with Academy Street and the Cleamore Road area of Kildare Town.

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
<b>PT 3</b>	Bus - Improve quality and coverage of bus stops. Short-term									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. It is assumed that the improvements to quality and coverage of bus stops will constitute minor development. Thus, a neutral impact on the environment is anticipated.
<b>PT 4</b>	Bus - Work with the NTA to achieve more frequent bus services in particular on the 126 and 883 services. Short-term									Through maximising connectivity for public transport and increasing frequency of public transport services, a positive impact on population and human health and air, noise and climate is anticipated through increased sustainable transport opportunities. It is assumed no development will take place as a result of this measure. Thus, a neutral impact on the environment is anticipated.
<b>PT 5</b>	Rail - Work with the NTA and Irish Rail to create a northern entrance to the train station. Short-term									Through maximising accessibility within the train station, a positive impact on population and human health is anticipated. It is assumed only minor development will take place as a result of this measure. Thus, a neutral impact on the environment is anticipated.
<b>PT 6</b>	Rail - KCC to work with the NTA and Irish Rail to upgrade the train station. Medium-term									Through upgrading Kildare's train station, a positive impact on population and human health is anticipated. It is assumed only minor development will take place as a result of this measure. Thus, a neutral impact on the environment is anticipated.
<b>PT 7</b>	Rail - KCC to work with the NTA and Irish Rail to achieve more frequent rail services. Medium-term									Through increasing frequency of public transport services, a positive impact on population and human health and air, noise and climate is anticipated through increased sustainable transport opportunities. It is assumed no development will take place as a result of this measure. Thus, a neutral impact on the environment is anticipated.
<b>Public Transport Objectives</b>										
<b>MTO 2.1</b>	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 the town of									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

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
	Kildare including the implementation of the measures outlined in Table 7-3 and Map 7.3.									otherwise neutral impacts as no major development is anticipated as a result of these measures. The measures included in Table 7-3 and illustrated on Map 7.3 of the draft LAP have been assessed at high-level in this assessment table under Public Transport Measures.
<b>MTO 2.2</b>	Support and facilitate the implementation of an extension of route 126 to the R415 to create a bus transfer point in the short term and in the longer term establish a transfer point within Kildare Tourist Outlet Village after the connectivity route between Kildare Tourist Outlet Village with Academy Street and the Cleamore Road area has been secured.									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. It is assumed that the transfer point here refers to bus shelter and potentially additional signage and constitutes minor development. Thus, a neutral impact on the environment is anticipated.
<b>MTO 2.3</b>	Work with the owners of Kildare Tourist Outlet Village to expedite the delivery of the permeability link to Cleamore Road prior to the development of the bus transfer point within the Outlet Village and to ensure their complimentary shuttle bus service is retained as part of the operation of Kildare Tourist Outlet Village.									This objective is not considered to relate to specific development and thus, overall has been considered as having neutral impacts. The measures included in Table 7-1 of the draft LAP have been assessed at high-level in this assessment table under Permeability Measures.
<b>MTO 2.4</b>	Work with the NTA to pursue the delivery of the following: a) Improvements to the quality and coverage of the bus stops and achieve more frequent bus services in Kildare Town. b) Achieve Leap Card integration at Kildare Train Station. c) Extension of the Phoenix Park tunnels rail services to Kildare Town.									This objective is not considered to relate to specific development and thus, overall has been considered as having neutral impacts.

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
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<b>MTO 2.5</b>	Engage with the NTA and Irish Rail to support and facilitate the following rail improvements, and where necessary to preserve the identified routes free from development: <ul style="list-style-type: none"> <li>The formation of a northern entrance to the train station.</li> <li>The upgrading of the train station.</li> <li>Achieving more frequent rail services.</li> </ul>									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. The rail improvements detailed in this objective constitutes minor development, thus, a neutral impact on the environment is anticipated.
<b>MTO 2.6</b>	Provide greater priority for public transport services throughout Kildare Town by providing signal priority measures at key junctions.									Through providing greater priority for public transport and signal priority measures at key junctions, a positive impact on population and human health and air, noise and climate is anticipated through increased sustainable transport opportunities and safety. Otherwise, an overall neutral environmental impact has been assessed for this objective.
<b>MTO 2.7</b>	Investigate the feasibility of a public transport priority route between the M7 motorway and Kildare Town Train Station as a longer-term vision for the town.									As this objective refers to an investigating the feasibility of a public transport priority route between the M7 motorway and Kildare Town Train Station as a longer-term vision for the town, it is anticipated that no development will occur over the lifetime of this Plan as a result of this objective. Thus, overall neutral impacts have been assessed as likely to occur.
<b>MTO 2.8</b>	Actively support for the extension of the electrification of the Kildare Southwest Rail Line from Hazelhatch to Kildare 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 and lowered emissions.  Actively supporting the extension of the electrification of the Kildare Southwest Rail Line from Hazelhatch to Kildare Town is unlikely to result in negative impacts on the surrounding environment.

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary	
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA		
<b>Road Measures</b>											
<b>RD 1</b>	Closure of Old Road Bridge to vehicular traffic and the replacement/upgrade of Southgreen Bridge to facilitate two-way traffic with improvements to approach roads (the upgrade must be delivered prior to the closure). Medium-term.										<p>There is potential for negative environmental impacts to occur where the replacement/ upgrade of bridge infrastructure is proposed.</p> <p>This measure is likely to result in neutral air quality, noise, and climate impacts, where the closure of Old Road Bridge to vehicular traffic and the replacement/ upgrade of Southgreen bridge is likely to result in similar levels of vehicular movement as the baseline situation. Neutral impacts are also anticipated for landscape and visuals and heritage, where the existing bridges and baseline scenario, in comparison to the upgrade and facilitation of two-way traffic at Southgreen bridge are unlikely to have significant impacts on landscape and visuals. There are no known protected features in close proximity to the bridges and thus, neutral impacts have also been assessed for heritage.</p> <p>Positive impacts are likely for population and human health where increased connectivity and access with Kildare Town is likely to be facilitated.</p>
<b>RD 2</b>	Construction of Northern Link Street which includes one-way systems. Medium-term.										<p>Any new development - especially proposed new roads have the potential to give rise to negative environmental effects. However, link roads may also relieve congestion on primarily congested roadways which is a positive.</p> <p>The implementation of these measures is likely to result in a positive effect on the population and material assets as a result of enhanced transport facilities.</p>
<b>RD 3</b>	Closure of Bride Street section of Market Square to vehicular traffic (linked to development of Magee Barracks Road and the Northern Link Street). Medium to long-term.										<p>Through the restriction of vehicular movement in this area, a positive impact on air, noise and climate is anticipated. Otherwise, an overall neutral environmental impact has been assessed for this objective.</p>

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
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<b>RD 4</b>	One-way system on Meadow Road running east to west (to be delivered after the development of the Hospital Street – Tully Road link road to ensure an alternative route is available). Short-term.									For the purpose of this assessment, it is assumed that no major development will be occurring as a result of this measure, and that only minor road markings/ realignment upgrades will take place. Thus, it is anticipated this measure will constitute only minor development and an overall neutral impact is anticipated as a result.
<b>RD 5</b>	Upgrade signalised junctions to MOVA and SCOOT as appropriate. Short to medium-term.									Through upgrades in signalised junctions, a positive impact on human health and wellbeing is anticipated by increased safety. Otherwise, an overall neutral environmental impact has been assessed for this objective.
<b>Previously Approved Measures</b>										
<b>PA 1</b>	Phase 1 Magee Barracks Roads. Developer led.									Development on the Magee Barracks has been assessed as likely to result in overall neutral impacts. The site was previously zoned in the Kildare town LAP 2012-2018 as ‘Regeneration of Magee Barracks’ and the new draft LAP 2023-2029 has zoned Magee Barracks as ‘Mixed Use’. Thus, there is minor change to land use zoning for this site and so, the development of Magee Barracks has been assessed as baseline due to its previous zoning. Potential positive impacts have however been assessed for landscape and visuals as this objective will ensure attractive walking and cycling routes are a fundamental element of the redevelopment of the Former Magee Barracks.
<b>PA 2</b>	Modus link road. Developer led.									For the purpose of this assessment, it is assumed that this measure represents the baseline scenario as it is a previously approved measure. Thus, overall neutral impacts have been assessed.
<b>PA 3</b>	Hospital Street to Tully link road. Developer led.									For the purpose of this assessment, it is assumed that this measure represents the baseline scenario as it is a previously approved measure. Thus, overall neutral impacts have been assessed.
<b>PA 4</b>	Phase 2 of Magee Barracks Road. Developer led.									Development on the Magee Barracks has been assessed as likely to result in overall neutral impacts. The site was previously zoned in the Kildare town LAP 2012-2018 as ‘Regeneration of Magee Barracks’ and the new draft LAP 2023-2029 has zoned Magee Barracks as ‘Mixed Use’.

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
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										Thus, there is minor change to land use zoning for this site and so, the development of Magee Barracks has been assessed as baseline due to its previous zoning. Potential positive impacts have however been assessed for landscape and visuals as this objective will ensure attractive walking and cycling routes are a fundamental element of the redevelopment of the Former Magee Barracks
<b>Road and Street Network Objectives</b>										
<b>MTO 3.1</b>	<p>(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.</p> <p>(b) Safeguard the development and carrying capacity of the national road infrastructure along the existing M7 motorway and associated Junctions 13, in accordance with the Spatial Planning and National Roads Guidelines for Planning Authorities (DoECLG, 2012) or any subsequent guidelines.</p>									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 M7 and associated Junctions 13, 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.
<b>MTO 3.2</b>	<p>Ensure the implementation of the following road measures contained in Table 7-4 and illustrated in Map 7.4 in accordance with the DMURS standards for urban roads and streets and where necessary to preserve the identified routes free from development:</p> <p>(i) Closure of Old Road Bridge to vehicular traffic and upgrade of Southgreen Bridge to two-way traffic</p> <p>(ii) Northern Link Street and associated one -way streets</p> <p>(iii) Closure of Bride Street</p> <p>(iv) One-way system on Meadow Road</p>									<p>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.</p> <p>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.</p>



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	(v) Upgrade signalised junctions to MOVA and SCOOT as appropriate. All road measures shall incorporate nature-based surface water management as a solution for surface water management.									The measures included in Table 7-4 of the draft LAP have been assessed at high-level in this assessment table under Road Measures.
<b>MTO 3.3</b>	Reduce the harmful effects of traffic noise by ensuring noise mitigation measures are implemented into new developments in proximity to motorway routes, national routes, regional routes and significant urban streets. Developers shall engage a suitably qualified acoustic specialist to prepare an Acoustic Design Statement for all new developments with the potential to impact sensitive noise receptors. The Statement shall have regard to the thresholds set out in the Kildare Noise Action Plan 2019-2023 (or any subsequent plan).									Ensuring noise mitigation measures are implemented into new developments in proximity to motorway routes, national routes, regional routes and significant urban streets will have a positive impact on both population and noise with regards those residents who will be living in close proximity to these streets.
<b>MTO 3.4</b>	Ensure a 91-metre building line setback from the motorway and associated junctions from the nearest roadside edge to protect against transportation noise and to ensure the future protection of the motorway network. Under certain circumstances ancillary development may be considered within the setback zone in recognition of local conditions and the nature of the proposed activity.									Ensuring noise mitigation measures are implemented into new developments in proximity to motorway routes, national routes, regional routes and significant urban streets will have a positive impact on both population and noise with regards those residents who will be living in close proximity to these streets.  However, if under certain circumstances ancillary development may be considered within the setback zone in recognition of local conditions and the nature of the proposed activity.

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		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
<b>MTO 3.5</b>	Ensure the safety of pedestrians and cyclists at the eastern section of Market Square once traffic is diverted from Bride Street, through a redesign of the eastern side of Market Square junction to increase its capacity to cater for greater vehicle volumes and to ensure the safety of pedestrians and cyclists.									Enhanced permeability for pedestrians and cyclists will result in a positive impact for population and human health. Air, noise and climate are also likely to be positively impacted by this objective, as it will result in reduced traffic levels and increased adoption of walking and cycling.  Overall neutral environmental impacts have been assessed for this objective as it relates to the redesign of the eastern side of Market Square junction.
<b>MTO 3.6</b>	Investigate the possibility of ancillary road measures such as the potential for a one-way system on Nugent Street, as part of the closure of Bride Street and also the possibility of a future HGV ban in the town centre within the lifetime of the Plan and/or under future land uses plans for the town.									Air, noise and climate are likely to be positively impacted by this objective, as it will result in reduced traffic levels, reduction of traffic-based emissions, and potentially an increased adoption of walking and cycling where HGV bans are facilitated in the town centre. Similarly, population and human health are likely to result in positive impacts, where reduced traffic volumes in the town centre are likely to positively impact health with improved air quality.  Overall, all other environmental components are likely to result in neutral impacts.
<b>Car-parking Measures</b>										
<b>PK 1</b>	Installation of VMS parking signs. Medium-term.									Through upgrades in parking signage, a positive impact on human health and wellbeing is anticipated by increased safety. Otherwise, an overall neutral environmental impact has been assessed for this objective. Biodiversity may however have potential to be negatively impacted by the lighting of VMS signs.
<b>PK 2</b>	Relocate on-street parking on Main Street. Short to medium-term.									Relocation of on-street parking is likely to result in a positive impact for population and human health in relation to increased parking facilities. Otherwise, an overall neutral impact has been assessed, as it is not anticipated that any further development will take place in the area of the main street where parking will be relocated.
<b>PK 3</b>	Creation of a new or upgraded town centre off-street car-park at the most appropriate of the three identified sites; Water tower, Dublin Road, Bride Street off-street car park. The preferred site/sites will be identified by a Kildare County									Relocation of a new or upgraded town centre off-street car-park at the most appropriate of the three identified sites, is likely to result in a positive impact for population and human health through increased parking areas.

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
	Council feasibility study at a later date. Short to medium-term.									Development is anticipated to occur in one of three sites, however at this time the site has not been chosen. Relating to the three potential sites, there is potential for negative impacts to occur of environmental components and heritage. However, at this time, the extent of impacts cannot be ascertained, as it is currently uncertain which site will be utilised.
<b>PK 4</b>	Upgrade of Kildare Town Train Station Car Park. Medium-term.									Through upgrades of Kildare Town Train Station Car Park, a positive impact on human health and wellbeing is anticipated by increased safety and parking facilities. Otherwise, an overall neutral environmental impact has been assessed for this objective, as no major development is anticipated as a result of this measure.
<b>PK 5</b>	Mobility Management Plans for major workplace locations: Kildare Tourist Outlet Village and the Kildare Chilling Site and other significant businesses. Short-term.									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 LAP area.
<b>PK 6</b>	Upgrade Nugent Street car-park. Short-term.									Through upgrades of Nugent Street car-park a positive impact on human health and wellbeing is anticipated by increased safety and parking facilities. Otherwise, an overall neutral environmental impact has been assessed for this objective, as no major development is anticipated as a result of this measure.
<b>Parking Objectives</b>										
<b>MTO 4.1</b>	Apply the cycle parking and car-parking standards in the Kildare County Development Plan, and relevant Section 28 Guidelines, to all applications for planning permission in Kildare Town.									This is existing policy, and therefore represents the baseline situation. A neutral environmental impact is envisaged.

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<b>MTO 4.2</b>	Ensure that cycle parking should be appropriately designed into the public realm and new developments at an early stage to ensure that adequate cycle parking facilities are provided.									<p>A positive impact on population and human health, and air noise and climate are predicted through the provision of sustainable transport facilities.</p> <p>Provision of bicycle parking constitutes development of a minor scale, a neutral impact on other aspects of the environment is therefore anticipated.</p>
<b>MTO 4.3</b>	<p>To provide adequate, secure and sheltered bicycle parking facilities subject to demand analysis, at appropriate locations at:</p> <ul style="list-style-type: none"> <li>• Town centre</li> <li>• Kildare Town Train Station</li> <li>• Adjacent to heritage, community and amenity destinations.</li> </ul>									<p>A positive impact on population and human health, and air noise and climate are predicted through the provision of sustainable transport facilities.</p> <p>Provision of bicycle parking constitutes development of a minor scale, a neutral impact on other aspects of the environment is therefore anticipated.</p>
<b>MTO 4.4</b>	Support and facilitate the implementation of the preferred car parking measures, as provided for on Map 7.5 and Table 7-5, as identified in the Kildare Town Transport Strategy.									<p>A positive impact on population and human health, and air noise and climate are predicted through the provision of sustainable transport facilities.</p> <p>Provision of bicycle parking constitutes development of a minor scale, a neutral impact on other aspects of the environment is therefore anticipated.</p> <p>The Kildare Town Transport Strategy was previously subject to SEA Screening in line with the SEA Directive (Directive 2001/42/EC). The screening report concluded that no likely significant negative effects on the value and vulnerability of Kildare were predicted to result from the successful implementation of the KTTS. Further, no likely significant negative effects on any areas or landscapes which have a recognised national, community or international protection status were identified either, it was therefore determined that no requirement for SEA was necessary based on the SEA Screening assessment. Thus overall, neutral environment impacts have been identified for this objective.</p>

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										The measures included in Table 7-5 of the draft LAP have been assessed at high-level in this assessment table under Car Parking Measures.
<b>MTO 4.5</b>	<p>Support and facilitate a range of range of car-parking infrastructure measures, as identified in the Kildare Town Transport Strategy as follows:</p> <ul style="list-style-type: none"> <li>• Improve car-parking signage.</li> <li>• Review parking duration.</li> <li>• Review HGV loading bays,</li> <li>• Enhance parking enforcement,</li> <li>• Review school drop-off facilities,</li> <li>• Review of layby at Kildare Town Train Station.</li> </ul>									<p>A positive impact on population and human health, and air noise and climate are predicted through the provision of sustainable transport facilities.</p> <p>Provision of bicycle parking constitutes development of a minor scale, a neutral impact on other aspects of the environment is therefore anticipated.</p> <p>The Kildare Town Transport Strategy was previously subject to SEA Screening in line with the SEA Directive (Directive 2001/42/EC). The screening report concluded that no likely significant negative effects on the value and vulnerability of Kildare were predicted to result from the successful implementation of the KTTS. Further, no likely significant negative effects on any areas or landscapes which have a recognised national, community or international protection status were identified either, it was therefore determined that no requirement for SEA was necessary based on the SEA Screening assessment. Thus overall, neutral environment impacts have been identified for this objective. No significant adverse cumulative impacts are likely.</p> <p>The measures included in Table 7-5 of the draft LAP have been assessed at high-level in this assessment table under Car Parking Measures.</p>
<b>MTO 4.6</b>	Investigate the provision of a designated drop zone for St Brigid's Primary School to remove cars from the area at drop off / pick up.									This objective is likely to result in an overall neutral impact on the environment, as the existing area at St Brigid's Primary School is unlikely to change as a result of this objective. A positive impact on population and human health is predicted through facilitating a safer drop off / pick up area for school children.
<b>MTO 4.7</b>	Investigate the provision of a designated area for coach parking in tandem with the feasibility study for the creation of a new or upgraded town centre off-street car-park (PK 3, refers).									This objective is likely to result in overall neutral impacts as it is not anticipated that any significant development will result in investigating the provision of a designated area for coach parking,

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<b>Architectural Heritage Objectives</b>											
<b>BHO 1.1</b>	Protect the architectural heritage of Kildare Town by ensuring the protection and conservation of all protected structures and structures of historic significance, (or parts of structures) including the curtilage and attendant grounds of structures detailed in Table 8-1 and Map 8.1 and Map 8.2 or any additional structure placed on the Record of Protected Structures as an amendment to the Kildare County Development Plan 2023-2029.										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.
<b>BHO 1.2</b>	Support the sensitive conservation and restoration of protected structures and their attendant grounds and operate flexibility with regard to the sustainable reuse of these buildings to facilitate their ongoing use, subject to good 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.
<b>BHO 1.3</b>	Support and promote the preparation of a management or conservation strategy for the Cathedral, the Castle and the Presentation Convent lands to inform future developments.										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.
<b>BHO 1.4</b>	Actively seek funding from the Heritage Council for Kildare Town to enable Kildare County Council to carry out a full review of protected structures in the town to include the analysis and categorisation of the condition of each building in order to formulate a plan to safeguard and sustainably reuse these buildings within the lifetime of the local area 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.  A positive impact on population and human health as well as landscape and visual is anticipated through the review of protected structures in the town to include the analysis and categorisation of the condition of each building in order to formulate a plan to safeguard and sustainably reuse these buildings within the lifetime of the draft LAP.

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<b>Architectural Conservation Area Objectives</b>										
<b>BHO 2.1</b>	Preserve the character of the designated Kildare Architectural Conservation Area (ACA) by ensuring that new development, extensions, renovation works and infill developments 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 inter alia vistas, streetscapes, building line, fenestration patterns and architectural features. Proposals for development shall include an analysis of how the new development complements the setting, character and appearance of the Kildare Town ACA referring to the findings of the ACA Statement of Character for the town.									Protection of Architectural Conservation Areas will positively impact heritage in Kildare Town. The publication of a Statement of Character and the reference to such will further promote conservation the heritage of Kildare Town. This enhancement of the ACAs will positively impact the landscape and visual aspect of Kildare Town.
<b>BHO 2.2</b>	Encourage the repair and enhancement of existing shopfronts and the replacement of inappropriate shopfronts and signage where necessary, having regard to the Kildare Town ACA Statement of Character and Kildare Shopfront Guidelines in the consideration of any shopfront or commercial proposals within the ACA in terms of design signage/advertising, lighting and materials. All proposals (contemporary or traditional) must be of a high quality of design and finish, contributing positively to the established pattern, scale, materials and proportions of buildings (including the upper floors) and should consider the reinstatement of historical features and the use of the Irish language. Such applications will be required to include a study of the overall façade and to make proposals to remove visually intrusive elements such as inappropriate signage, lighting and ancillary cables and ducts.									A likely positive effect on landscape and visual amenity is identified as a result of the objective to ensure new shop front and signage design contributes positively and enhances the streetscape in Kildare Town.  Visually intrusive elements and unnecessary clutter on existing shopfront/facades/commercial premises negatively impact the heritage, landscape and visual, population and human health. Removal of these elements will have a positive impact on aforementioned SEA environmental objectives of Kildare Town. Otherwise, overall neutral environmental impacts have identified for this objective.

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<b>BHO 2.3</b>	Protect and enhance all protected views within the Architectural Conservation Area as illustrated on Map 8.3 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 LAP area. Otherwise, an overall neutral impact has been identified for this objective.
<b>BHO 2.4</b>	Initiate a 'Beautiful Street Initiative' encouraging the formation of Terrace / Street partners to carry out analysis and to prepare proposals for works to cumulatively enhance streets within the ACA boundary in accordance with the guidance contained in Section 11.1.2 of the ACA Statement of Character.									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 and amenity value within the LAP area. Otherwise, an overall neutral impact has been identified for this objective.
<b>BHO 2.5</b>	Preserve, incorporate and enhance the alignment of the historic burgage plots in particular the historic stone boundaries throughout the Architectural Conservation Area (ACA) by complying with the principles of design for the area and Burgage Plot Guidelines in the Statement of Character, particularly to the south of Dublin Street, and the Market Square. All planning applications for development on lands that include or are bound by burgage plot boundaries are to clearly detail how these boundaries will be enhanced, reinstated and incorporated, in order to protect and enhance the historic interest presented by the Burgage plot boundaries. Adherence to any public realm palette of finishes which stem from the Town Renewal Masterplan projects is also required.									These are existing policy, and therefore represent the baseline situation. A neutral environmental impact is envisaged.



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<b>BHO 2.6</b>	Ensure careful consideration of urban development within or adjoining Architectural Conservation Area ensuring the design rational and 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 LAP area from inappropriate development. Otherwise, an overall neutral impact has been identified for this objective.
<b>Scenic View Objectives</b>										
<b>BHO 3.1</b>	Protect the visual amenity and character of scenic routes and protected views in Kildare Town as identified on Map 8.4 and require a Visual Impact Assessment for development proposals which have the potential to impact on the special character and visual amenity of protected views and scenic routes as part of the development management process.									This objective is likely to result in a positive impact on landscape and visual and architectural, archaeological and cultural heritage through the protection of visual amenity, character of scenic routes and protected views in Kildare Town from inappropriate development. Otherwise, an overall neutral impact has been identified for this objective.
<b>Archaeological Heritage Objectives</b>										
<b>BHO 4.1</b>	Protect and promote the archaeological heritage of Kildare Town in particular those sites illustrated on Map 8.1 and Map 8.2 and referred to under Table 8-5 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 1930-2004.									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 existing character of the town centre and ACA.

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<b>BHO 4.2</b>	Prioritise the protection/preservation in situ (or upon agreement preservation by record) of items of archaeological interest as listed in Table 8-5 and shown on Map 8.1 and Map 8.2 Built Heritage and Archaeology 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 heritage through increased conservation and protection efforts and landscape and visual through maintenance of the existing character of the town centre and ACA.
<b>BHO 4.3</b>	Ensure the route of the town walls alignment is protected and to promote public awareness and understanding of the existence of these historic elements through the use of high-quality interpretative material and signage within the public realm.									This objective is likely to result in a neutral impact on the environment in general, and a positive impact on heritage through increased awareness and understanding of historic elements of Kildare Town and protection efforts.
<b>BHO 4.4</b>	Support and maintain the membership of Kildare Town in the Irish Walled Towns Network which has been established by the Heritage Council.									This objective is likely to result in a neutral impact on the environment in general, and a positive impact on heritage through increased protection and conservation of walls in Kildare Town.
<b>BHO 4.5</b>	Seek the implementation of heritage-led regeneration including that of the public realm, through funding sources such as the Historic Towns Initiative and the Urban/ Rural Regeneration Development Fund whichever is applicable <sup>48</sup> .									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.

<sup>48</sup> Census 2022 data is required at settlement level to know which fund to apply for.

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<b>Natural Heritage Objectives</b>										
<b>NHO 1.1</b>	Ensure that any proposal for development within the plan area adjacent to the Curragh pNHA is located and designed to minimise impacts on the biodiversity, geological, water and landscape value of the pNHA.									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.
<b>NHO 1.2</b>	Require, where appropriate, that planning applications for development located within the plan area and adjacent to the Curragh pNHA are accompanied by an Ecological Impact Assessment (EcIA) prepared by a suitably qualified professional.									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.
<b>NHO 1.3</b>	Encourage and promote appropriate sustainable access from Kildare Town to the Curragh.									While the encouragement and promotion of appropriate sustainable access from Kildare Town to the Curragh is likely to result in a positive environmental effect, increased human interaction with places of natural sensitivity could also negatively affect the same- with regards maintenance of species, littering, pollution etc. An uncertain effect on biodiversity, water, land and soil and air, noise and climate is therefore identified. Potential positive impacts are anticipated population and human health and air and climate, through the encouragement sustainable transport access and increased recreational use.
<b>NHO 1.4</b>	Identify, protect and enhance, in co-operation with the relevant statutory agencies and other relevant groups active in Kildare Town, sites of local biodiversity importance (Local Biodiversity Areas), not otherwise protected by legislation.									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.

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<b>Green Infrastructure Objectives</b>										
<b>NHO 2.1</b>	Protect identified key green infrastructure (Map 9.1) and steppingstone habitats (according to their value), enhance where possible and integrate existing and new green infrastructure as an essential component of new developments and prohibit development that would fragment the green infrastructure network. Site specific ecology surveys should be carried out in inform proposed development and assess and mitigate potential 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.
<b>NHO 2.2</b>	Ensure that all development proposals on sites where key hedgerows and treelines are identified in Map 9.1 are retained and integrated into the development in the first instance, or in exceptional circumstances, where they are required to be removed, ensure development proposals are accompanied by a planting scheme of similar quantity and species mix to ensure no net biodiversity loss within the subject site.									This objective is likely to result in a neutral impact on the environment in general. Potential positive impacts on human health 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 anticipated through protecting, retaining and integrating green areas in Kildare.
<b>NHO 2.3</b>	Require proposals for development to demonstrate how they integrate/respond to Green Infrastructure and include measures to protect and enhance green 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 LAP area.

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<b>NHO 2.4</b>	Support the preparation of a Biodiversity Action Plan for Kildare Town including the development of a Community Biodiversity Toolkit, in line with all national policy documents that relate to biodiversity.									An overall positive environmental impact has been identified in supporting the preparation of a Biodiversity Action Plan for Kildare Town including the development of a Community Biodiversity Toolkit. Neutral impacts are anticipated otherwise.
<b>NHO 2.5</b>	Incorporate items of historical or heritage importance within the Green Infrastructure network as amenity features, where practical.									<p>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 the incorporation into a green infrastructure network. 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.</p> <p>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 LAP area.</p>
<b>NHO 2.6</b>	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.

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<b>Curragh Plains Objectives</b>										
<b>NHO 3.1</b>	Require all development proposals located within the 'Curragh Buffer Zone' as identified on Map 9.1 to include a tree planting programme of native trees (to primarily include tree canopy of Scot's pine ( <i>Pinus sylvestris</i> ) / Pedunculate oak ( <i>Quercus robur</i> ) and underplanted with hazel ( <i>Corylus avellane</i> ) / birch ( <i>Betula pubescens</i> ) to protect the ecological and amenity value of the Curragh.									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. Regard must also be taken to the planting of trees at appropriate locations, with appropriate tree species.
<b>NHO 3.2</b>	Ensure that lighting in developments adjacent to the Curragh do not negatively impact the area or cause light pollution.									An overall neutral environmental impact is anticipated for this objective and potential positive impacts in relation to biodiversity, where the minimisation of light pollution is likely to benefit surrounding biodiversity.
<b>Tree Coverage Objectives</b>										
<b>NHO 4.1</b>	Require all development proposals to consider opportunities for securing measurable net gains for biodiversity, especially on greenfield sites.									An overall positive impact is likely as a result of this objective, particularly in relation biodiversity and other environmental components, amongst human health and population and landscape and visuals where requiring all development proposals to consider opportunities for securing measurable net gains for biodiversity will result in increased and sustained biodiversity levels, amongst less habitat degradation resulting from development.
<b>NHO 4.2</b>	Require all new residential developments (of 10 units or more) and commercial developments (on sites 0.5ha or larger) to include tree-planting proposals in the range of 1-5% site coverage, depending on the nature of the proposed use and function of associated open spaces.									An overall positive impact is likely as a result of this objective, particularly in relation population and human health, biodiversity, air and climate and landscape and visuals where the inclusion of tree planting is required in all new residential and commercial developments. In doing so, regard must be taken to the planting of trees at appropriate locations, with appropriate tree species.
<b>NHO 4.3</b>	Increase native tree planting and pollinator friendly planting, in accordance with the									Measures relating to the protection and conservation of biodiversity - including habitats, species, green infrastructure, stepping-stones etc.

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	recommendations of the All-Ireland Pollinator Plan, throughout Kildare Town and in open spaces in new developments in order to enhance local biodiversity, visual amenity and surface water management.									are likely to result in a positive effect on biodiversity, land and soil, water, air quality, noise and climate and landscape and visual. However, in doing so, regard must be taken to the planting of trees at appropriate locations, with appropriate tree species.
<b>NHO 4.4</b>	Encourage state agencies to include tree planting measures when delivering key infrastructure in the town or as part of any upgrading works related to key infrastructure of the town.									An overall positive impact is likely as a result of this objective, particularly in relation population and human health, biodiversity, air and climate and landscape and visuals where the encouragement of state agencies to include tree planting measures as part of any upgrading works related to key infrastructure of the town. However, in doing so, regard must be taken to the planting of trees at appropriate locations, with appropriate tree species.
<b>NHO 4.5</b>	Support appropriate applications made by Kildare County Council to the Woodland Creation on Public Lands Scheme and to the NeighbourWood Scheme provided by the Department of Agriculture, Food and the Marine.									An overall neutral impact is likely as a result of this objective, in supporting applications made by Kildare County Council to the Woodland Creation on Public Lands Scheme provided by the Department of Agriculture, Food and the Marine. Potential positive impacts are likely to air and climate and landscape and visuals where increased tree planting may be facilitated as a result of this support.
<b>NHO 4.6</b>	Support Community-led tree planting initiatives throughout Kildare Town at appropriate locations.									An overall positive impact is likely as a result of this objective, particularly in relation population and human health, biodiversity, air and climate and landscape and visuals where support for community-led tree planting initiatives throughout Kildare Town at appropriate locations will be facilitated.
<b>Water and Wastewater Objectives</b>										

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
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IO 1.1	Work in conjunction with Uisce Éireann to promote and facilitate the provision of adequate water and wastewater infrastructure, to ensure that development land is effectively serviced to serve the needs of the existing and future population of Kildare Town and ensure that such infrastructure is provided prior to, or in tandem with new development in accordance with the Implementation and Delivery Schedule (Section 11.1.1., 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 material assets as a result of enhanced waste water services.
IO 1.2	Ensure that surface run-off does not discharge to the existing wastewater treatment infrastructure in Kildare Town to ensure that developments do not have a negative impact on the capacity of the wastewater treatment network.									The enhancement of surface water infrastructure works is, self-evidently, likely to result in a positive impact on water and material assets. Population and human health similarly, where developments are unlikely to have a negative impact on the capacity of the wastewater treatment network. Otherwise, neutral impacts are identified.
<b>Surface Water and Groundwater Objectives</b>										
IO 2.1	<p>Pursue opportunities to increase surface water drainage capacity in the town as identified in the Surface Water Study, in particular to investigate the feasibility of:</p> <ol style="list-style-type: none"> <li>1. A new surface water network through the Former Magee Barracks site connecting to the existing surface water siphon under the M7 motorway with eventual outfall to the Tully Stream.</li> <li>2. A new surface water pipe crossing under the M7 motorway and west of the R415 with outfall to the Armour Stream.</li> </ol>									<p>Any new development, particularly increasing and implementing new surface water networks, 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 as a result of enhanced surface water drainage capacity in the town.</p> <p>A Technical Note relating to ‘Groundwater connectivity to Natura 2000 sites in relation to Kildare Town LAP’ was prepared with reference to this objective. Furthermore, an AA screening report was prepared for the draft LAP with reference to this technical note and likely significant effects of the draft Plan on Natura 2000 sites have been screened.</p> <p>The AA Screening concluded:</p> <p><i>There are five European designated sites within the Zone of Influence (ZoI) of the draft Plan, namely Pollardstown Fen SAC,</i></p>



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		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
	Investigations shall be subject to capacity assessments, Environmental Impact Assessment (EIA) Screening and Appropriate Assessment (AA) screening and where applicable Stage 2 AA to minimise the risk of likely significant effects on European Sites, their qualifying interest species and their hydrological connections.									<p><i>Mouds Bog SAC, Ballynafagh Lake SAC, River Barrow and River Nore SAC and Ballynafagh Bog SAC.</i></p> <p><i>Of these five European designated sites, there is only a potential impact pathway identified between the area covered by the draft Plan, and one site, namely the River Barrow and River Nore SAC. This is a hydrological connection via the Tully Stream and Armour Stream, along 13km of watercourse (including five confluences), to the Finnelly River which is designated as part of the River Barrow &amp; River Nore SAC.</i></p> <p><i>The potential for Likely Significant Effect (LSE) of each individual objective/land-use zoning in the draft Plan on the integrity of the River Barrow &amp; River Nore SAC has been systematically considered in the AA Screening Report and it is recommended that all objectives can be screened out from AA.</i></p>
<b>IO 2.2</b>	Prepare a Surface Water Masterplan for Kildare Town, based on the information, recommendations and additional surveys required contained within the Surface Water Study that accompanies this Plan.									The enhancement of surface water infrastructure works and the preparation of a surface water masterplan based on the information, recommendations and additional surveys required contained within the Surface Water Study that accompanies this draft Plan is, self-evidently, likely to result in a positive impact on water and material assets. Otherwise, a neutral impact is anticipated.
<b>IO 2.3</b>	Incorporate nature-based water drainage solutions as part of all plans and projects in Kildare Town. Proposals for new development shall align with the Kildare County Development Plan, the Kildare Town Surface Water Study (that accompanies this Plan), the Surface Water Masterplan (once finalised) and the County Kildare Sustainable Urban Drainage Systems Guidance Document (once finalised).									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.
<b>IO 2.4</b>	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									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

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
	water drainage purposes; whilst also ensuring a network of Surface Water Corridors (surface water pathway corridors) are provided in accordance with the indicative locations shown on Map 10.1.									surface water drainage purposes; whilst also ensuring a network of Surface Water Corridors Nature-based water drainage solutions, can enable suitable designs to be implemented to improve the biodiversity and provide the opportunity for habitat enhancement of an area, as well as improving water quality and controlling water quantity. Doing so, can also reduce the possibility of flooding in an area and contribute to the successful overall running of utilities in an area.
<b>IO 2.5</b>	Require the Proposed Wayleave for Future Surface Water Network Extension as indicated on Map 10.1 to be included in development proposals on sites affected by the indicative route.									Overall neutral impacts have been assessed as likely to occur from this objective, where requiring the Proposed Wayleave for Future Surface Water Network Extension to be included in development proposals on sites affected by the indicative route is likely to have overall neutral impacts.  It is likely that positive impacts will result on water where future provisions of Surface Water Network Extension will be facilitated. Similarly, potential positive impacts on human health and material assets are anticipated with the increased provision of services and surface water management.
<b>Flood Risk Management Objectives</b>										
<b>IO 3.1</b>	Require a site-specific Flood Risk Assessment, appropriate to the scale and nature of the development and the risks arising, to be carried out for developments located within the Pluvial Flood Risk Area as outlined on Map 10.2 Strategic Flood Risk Assessment Map.									A beneficial effect on water has been identified due to the preparation of Site-Specific Flood Risk Assessments (FRA) for developments located within the Pluvial Flood Risk Area as outlined on Map 10.2 Strategic Flood Risk Assessment Map. Otherwise, neutral impacts are anticipated.
<b>Energy and Communications Objectives</b>										
<b>IO 4.1</b>	Support and facilitate the provision of telecommunications and the energy supply									This objective is likely to result in a positive impact on population and human health and material assets through provision of required services.

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
	network infrastructure in Kildare Town, subject to safety and amenity requirements.									Otherwise, uncertain environmental impacts are anticipated as it is not possible to ascertain the extent or scale to which new development may be facilitated, related to the telecommunications and energy supply network infrastructure. New development, of any kind has the potential to give rise to negative environmental effects.
<b>IO 4.2</b>	Investigate the feasibility of providing free and accessible Wi-Fi at Market Square.									Overall, neutral impacts are likely as a result of this objective. Positive impacts on population and human health and material assets are likely through provision of free and accessible Wi-Fi at Market Square.
<b>IO 4.3</b>	Seek the undergrounding of all electricity, telephone and television cables particularly within the Kildare Town Architectural Conservation Area (ACA) and discourage the proliferation of above ground utility boxes and to seek screening measures in conjunction with the provision of such structures.									A positive impact on population and human health is envisaged as after the installation is done there are only minor limitations regarding land use.  This objective is likely to result in a positive impact on landscape and visual and heritage in that all existing overhead cables, particularly within the Kildare Town Architectural Conservation Area (ACA) would be removed and placed underground - which would be less visually intrusive and has particular regard to the character of the ACA in the town centre.
<b>IO 4.4</b>	Promote and encourage the use of renewable energy technologies for small, medium and large developments of existing and proposed building stock, such as district heating, micro generation (photovoltaic, micro-wind, micro hydro and micro combined heat and power) and other renewable energy technologies subject to the consideration of environmental, conservation and visual requirements.									The promotion and encouragement of 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 and will be subject to the consideration of environmental, conservation and visual requirements. Similarly, neutral impacts are anticipated for landscape and visual and archaeological, architectural and cultural heritage where any such developments are subject to the consideration of environmental, conservation and visual requirements.
<b>IO 4.5</b>	Consult with Gas Networks Ireland prior to any significant Public Realm Works to give residents and business owners along streets or roads where works are due to commence the opportunity to connect to the natural gas network in advance of the works commencing, where applicable.									Overall, neutral impacts are likely as a result of this objective. Positive impacts on population and human health and material assets are likely through increased provision of services.

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
<b>Pollution and Environmental Services Objectives</b>										
<b>IO 5.1</b>	Maintain existing recycling facilities and secure the provision of additional facilities, in conjunction with new development as required, in particular at the land designated a Neighbourhood Centre at Southgreen Road and within the Former Magee Barracks site as per Section 11.1.									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 result in a positive effect 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.  In relation to the Former Magee Barracks site, development on the Magee Barracks has been assessed as likely to result in overall neutral impacts.  The site was previously zoned in the Kildare town LAP 2012-2018 as 'Regeneration of Magee Barracks' and the new draft LAP 2023-2029 has zoned Magee Barracks as 'Mixed Use'. Thus, there is minor change to land use zoning for this site and so, the development of the Former Magee Barracks site has been assessed as baseline due to its previous zoning. Potential positive impacts have however been assessed for landscape and visuals as this objective will ensure attractive walking and cycling routes are a fundamental element of the redevelopment of the Former Magee Barracks
<b>IO 5.2</b>	Support the development of a green waste composting site in Kildare Town for use by local community groups for the sustainable disposal of green waste at appropriate locations.									The development of a green waste composting facility in Kildare town is likely to result in a positive effect on Biodiversity, Land and Soil and Material Assets. However, although the facilitation of such will be implemented at appropriate locations, the size, scale and location of this development is unknown at this time and an uncertain effect is therefore identified.
<b>IO 5.3</b>	Support local schools, town and community groups such as Kildare Tidy Towns 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.

**Table 8.2 Land-Use Zoning Assessment**

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary	
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA		
<b>Land-Use Zoning Objectives</b>											
Ref. A – Town Centre	To protect, improve and provide for the future development of the town centre.										This objective is likely to result in an overall neutral environmental impact, as the lands zoned ‘Town Centre’ comprise existing, hardstanding urban area. Positive impacts are anticipated as likely for population and human health, heritage, landscape and visual and material assets, where the protection and improvement of the town centre will be facilitated, amongst a likelihood of increased provision of services within the future development of the town.
Ref. B - Existing Residential / Infill	To protect and enhance the amenity of established residential communities and promote sustainable intensification. Specific Objective: Site B*: Development of the site located north of railway should incorporate significant pedestrian and cycling infrastructure (including secure bicycle parking) to provide a northern approach to the railway station within a high-quality public realm.										This objective is likely to result in an overall neutral environmental impact, as the lands zoned ‘Existing Residential / Infill’ predominantly comprise existing, hardstanding urban area. Positive impacts are anticipated as likely for population and human health, air, noise and climate, landscape and visual and material assets, where the protection and enhancement of established residential communities and the promotion of sustainable intensification will be facilitated, amongst a likelihood of increased provision of services and promotion of sustainable transport methods over vehicular movement.  However, in the case where greenfield sites are utilised for infill development, such as, that of the site located north of railway. Potential negative impacts are likely where new development is occurring on previously undeveloped land, thus potential negative impacts have been assessed for biodiversity, land and soil and water. Uncertain impacts are likely for archaeology, architectural and cultural heritage as construction works in proximity to protected sites may negatively impact upon such, however the extent of development is currently unknown and so it is not possible to ascertain the scale of development that will be occurring.
Ref. C - New Residential	To provide for new residential development.										Potential negative impacts are anticipated for this objective whereby, the provision for new residential development is likely to take place predominantly on greenfield sites.

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
										Any new development has the potential to give rise to negative environmental effects. Thus, potential negative impacts have been assessed for biodiversity, land and soil, water, heritage, and landscape and visual. Refer to mitigation measures in Section 9 of this report. The implementation of this objective is however likely to result in a positive effect on the population and human health.
Ref. C - New Residential Phase 2	To protect future development lands from inappropriate forms of development which would impede the sequential expansion and consolidation of the town in terms of providing for new residential development for future plans <sup>49</sup> . The inclusion of these lands will not in any way infer a prior commitment regarding the nature of any future zoning. Such a decision will be considered within the framework of the need for additional zoned lands and the proper planning and sustainable development of the area.									Overall neutral impacts are likely to occur as a result of preservation of land for future development, as no development is likely to occur within the plan period in this case. However, as this objective details that <i>'The land identified as Phase 2 could be brought forward for New Residential through a statutory amendment under Section 20 of the Planning and Development Act 2000 (as amended) to align the local area plan with any future revised population growth contained in any possible variation to the Core Strategy of the Kildare County Development Plan 2023-2029'</i> , for the purposes of this assessment, it is assumed that there is potential for development to occur on these lands and so, negative environmental impacts have been assessed as likely to occur in the case that development is permitted on these lands. Refer to mitigation measures in Section 9 of this report. Positive impacts are likely to occur in relation to population and human health where increased residential areas may be facilitated. Positive impacts are also anticipated as likely for air and climate as the protection of future development lands from inappropriate forms of development which would impede the sequential expansion and consolidation of the town is likely to have a positive impact in reducing urban sprawl.
Ref. D - Retail Outlet Centre	To provide for retail outlet centre development.									For the purposes of this assessment, it is assumed that new development may be likely to occur. Any new development has the potential to give rise to negative environmental effects.

<sup>49</sup> The land identified as Phase 2 could be brought forward for New Residential through a statutory amendment under Section 20 of the Planning and Development Act 2000 (as amended) to align the local area plan with any future revised population growth contained in any possible variation to the Core Strategy of the Kildare County Development Plan 2023-2029.

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
	The purpose of this zoning is to support the development of the Kildare Tourist Outlet Village which consists of a group of store retailing end-of-season or discontinued items at discounted prices in accordance with the definition of Outlet Centre as defined in the Retail Planning: Guidelines for Planning Authorities (2012) or any subsequent guidelines.									However, as this site consists of hardstanding urban area, minimum environmental impacts are anticipated to occur. Thus overall, neutral impacts have been assessed for this objective.  This objective is likely to result in a positive effect on population and human health and material assets as a result of the enhanced provision of services and increased employment.
Ref. E - Community and Educational	To provide for education, recreation, community, and health. Specific Objective: E* - These lands have been designated for the provision of a childcare facility only in line with approved residential developments.									For the purposes of this assessment, it is anticipated that development is likely to be occurring on the sites zone 'Community and Educational'. Potential negative impacts are anticipated for this objective whereby, the development and provision of education, recreation, community, and health related facilities is likely to take place predominantly on greenfield sites.  Any new development has the potential to give rise to negative environmental effects. Thus, potential negative impacts have been assessed for biodiversity, land and soil and water. Refer to mitigation measures in Section 9 of this report. Uncertain impacts have been assessed as likely for heritage and landscape and visual as the scale and extent of development that has potential to occur is unknown at this time and so, it is not possible to ascertain the extent of impact to these areas.  The implementation of this objective is however likely to result in a positive effect on the population and human health and material assets, where increased recreational areas and provision of services are likely.
Ref. F - Open Space and Amenity	To protect and provide for open space, amenity and recreation provision.									Overall neutral environmental impacts are anticipated as a result of this objective as lands zoned for 'Open Space and Amenity' holds a low intensive purpose where no significant change is likely to either the environment or population. However, as the land zoned for 'Open Space and Amenity' are predominantly of greenfield nature, there is potential for negative impacts to occur on biodiversity as a result of increased human activity and trampling.

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
Ref. G - National Stud and Green Belt	To protect and enhance the development of the Irish National Stud and established agricultural / bloodstock uses while also protecting the physical, environmental, natural and heritage resources such as the Curragh.									Overall neutral environmental impacts are anticipated as a result of this objective whereby the promotion and enhancement of the development of the Irish National Stud and established agricultural / bloodstock uses while also protecting the physical, environmental, natural and heritage resources such as the Curragh is likely to result in minimal environmental impact.  The implementation of this objective is likely to result in a positive effect on the population and human health and archaeological, architectural and cultural heritage where the protection of the physical, environmental, natural and heritage resources in Kildare will be facilitated, amongst increased recreational areas for the surrounding population.
Ref. H – Industry and Warehousing	To provide for industry, manufacturing, distribution and warehousing.  Site Specific Objective: H* - Require all development proposals to be accompanied by an Appropriate Assessment addressing potential impacts on the Armour Stream, a tributary of the River Barrow River Nore SAC.									Potential negative impacts are anticipated overall for this objective, whereby, the provision of industry, manufacturing, distribution and warehousing is likely to take place, particularly where the provision of such is taking place on greenfield sites.  Site-Specific Objective H* refers to a greenfield site, whereas the other sites zoned for Industry and Warehousing are brownfield in nature. A neutral impact has been assessed for this objective in relation to water, as Site H * will require all development proposals to be accompanied by an Appropriate Assessment addressing potential impacts on the Armour Stream, a tributary of the River Barrow River Nore SAC. As a result of the Site-Specific Objective, less degradation is likely to occur to surrounding biodiversity.  However, any new development has the potential to give rise to negative environmental effects, particularly, in relation to development of industry, manufacturing, distribution and warehousing, amongst the inclusion of greenfield sites. Refer to mitigation measures in Section 9 of this report.  The implementation of this objective is however likely to result in a positive effect on the population and human health and material assets, where increased employment and provision of services are likely.



Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
										<p>An AA screening report was also prepared for the draft LAP and the likely significant effects of the draft Plan on Natura 2000 sites have been screened.</p> <p>The AA Screening concluded:</p> <p><i>There are five European designated sites within the Zone of Influence (ZoI) of the draft Plan, namely Pollardstown Fen SAC, Mouds Bog SAC, Ballynafagh Lake SAC, River Barrow and River Nore SAC and Ballynafagh Bog SAC.</i></p> <p><i>Of these five European designated sites, there is only a potential impact pathway identified between the area covered by the draft Plan, and one site, namely the River Barrow and River Nore SAC. This is a hydrological connection via the Tully Stream and Armour Stream, along 13km of watercourse (including five confluences), to the Finnelly River which is designated as part of the River Barrow &amp; River Nore SAC.</i></p> <p><i>The potential for Likely Significant Effect (LSE) of each individual objective/land-use zoning in the draft Plan on the integrity of the River Barrow &amp; River Nore SAC has been systematically considered in the AA Screening Report and it is recommended that all objectives can be screened out from AA.</i></p>
Ref. I – Agricultural	To retain and protect agricultural uses.									Overall neutral impacts are likely for this objective whereby no change in land-use is likely to occur in relation to sites zoned ‘Agricultural’.
Ref. K – Commercial	To protect and improve existing commercial uses and provide for additional commercial developments.									The protection and improvement of existing commercial uses are likely to result in minimal environmental impact, however the provision for additional commercial developments detailed in this objective are likely to result in potential negative impacts where significant development may be likely to occur. Thus, overall negative impacts are anticipated for this objective, particularly where additional commercial developments are likely to take place on greenfield sites.

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
										<p>Any new development has the potential to give rise to negative environmental effects, particularly, in relation to development of industry, manufacturing, distribution and warehousing, amongst the inclusion of greenfield sites. Refer to mitigation measures in Section 9 of this report.</p> <p>The implementation of this objective is however likely to result in a positive effect on the population and human health and material assets, where increased employment and provision of services are likely.</p>
Ref. N - Neighbourhood Centre	<p>To provide for new/existing neighbourhood centres and associated facilities.</p> <p>Note: neighbourhood centres are intended to serve the immediate needs of local residents and workers and should not compete with similar retail uses within the town centre.</p>									<p>The provision of new/existing neighbourhood centres and associated facilities are likely to result in potential negative impacts where development is likely to occur. Thus, overall negative impacts are anticipated for this objective, particularly where new/existing neighbourhood centres and associated facility developments are likely to take place on a greenfield site.</p> <p>Any new development has the potential to give rise to negative environmental effects, particularly, in relation to development of industry, manufacturing, distribution and warehousing, amongst the inclusion of greenfield sites. Refer to mitigation measures in Section 9 of this report.</p> <p>The implementation of this objective is however likely to result in a positive effect on the population and human health and material assets, where increased employment and provision of services are likely.</p>
Ref. Q - Enterprise and Employment	<p>To provide for and facilitate an appropriate mix of employment uses including office-based industry, enterprise and incubator units, business, science and technology and institutional uses.</p>									<p>For the purposes of this assessment, it is anticipated that development is likely to be occurring on the sites zone 'Enterprise and Employment'. Potential negative impacts are anticipated for this objective whereby, providing for and facilitating the provision of high job-generating uses. is likely to take place predominantly on greenfield sites.</p> <p>Any new development has the potential to give rise to negative environmental effects. Thus, potential negative impacts have been assessed for biodiversity, land and soil, water, heritage, and landscape and visual. Refer to mitigation measures in Section 9 of this report.</p>

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
										The implementation of this objective is however likely to result in a positive effect on the population and human health and material assets, where increased employment and provision of services are likely.
Ref. R - Retail / Commercial	To support continued operation of existing retail commercial uses.									This objective is likely to result in an overall neutral impact, where no significant change is likely to occur either to the environment or population.
Ref. S - Equine Industry	<p>To provide for the development of the Equine Industry.</p> <p>The primary use within this zone is equestrian related activities such as education and training facilities, indoor and outdoor performance arenas and associated offices and car parking.</p> <p>The primary purpose of this zoning is to facilitate the further development of the Racing Academy and Centre of Education (RACE) campus as Ireland's academy for the horse racing industry and an international centre of horse racing excellence.</p> <p>Limited self-catering accommodation associated with the RACE Ireland facility is acceptable in this land use zoning.</p>									For the purposes of this assessment, it is assumed that development is likely to occur in facilitating the further development of the Racing Academy and Centre of Education (RACE) campus as Ireland's academy for the horse racing industry and an international centre of horse racing excellence. Any new development has the potential to give rise to negative environmental effects, particularly in relation to biodiversity, land and soil, water, heritage, and landscape and visual. However, at this time it is not possible to ascertain to what extent development is likely to take place and so, overall uncertain impacts have been assessed for this objective.
Ref. SR - Strategic Reserve	To protect the integrity of the lands to provide for the future strategic expansion of the town. To ensure any development that would prejudice the future orderly expansion of the town will be resisted.									<p>No development is anticipated to take place on lands zoned 'Strategic Reserve', until which time future strategic expansion of the town is facilitated.</p> <p>Overall neutral impacts have been assessed as likely for this objective. In the case where uses 'Permitted in Principle' and 'Open to Consideration' within the Agriculture land use zoning will be considered on these lands, it is also considered the impact of such are not anticipated to result in major development and so, overall neutral impacts have been identified.</p>

Objective and or Policies	Aims / Commitments	SEA Environmental Objectives								SEA Commentary
		P & HH	Bio	L & S	Wat	A, Q & C	AA & CH	L & V	MA	
	<p>Uses 'Permitted in Principle' and 'Open to Consideration' within the Agriculture land use zoning will be considered on these lands provided they do not jeopardise the overall objective for the strategic expansion of the town, Justification for the proposed use and a comprehensive overall plan for the lands demonstrating the proposed development would not adversely affect the future development of the lands would be required.</p> <p>The inclusion of these lands will not in any way infer a prior commitment regarding the nature of any future zoning. Such a decision will be considered within the framework of the need for additional zoned lands and the proper planning and sustainable development of the area.</p>									
Ref. T - Mixed Use	<p>To provide for commercial, educational, residential and community uses.</p> <p>Specific Objective: The future development of this Settlement Consolidation Site shall have regard to the Urban Design Framework prepared for the site.</p>									Reference T relates to the site of the Former Magee Baracks which has been zoned as 'Mixed Use'. Development on the Magee Barracks has been assessed as likely to result in overall neutral impacts. The site was previously zoned in the Kildare town LAP 2012-2018 as 'Regeneration of Magee Barracks' and the new draft LAP 2023-2029 has zoned Magee Barracks as 'Mixed Use'. Thus, there is minor change to land use zoning for this site and so, the development of Magee Barracks has been assessed as baseline due to its previous zoning.
Ref. U - Utilities/Services	To provide for and improve public utilities.									<p>For the purpose of this assessment, it is assumed that no significant development will take place as a result of this objective and that existing utility areas will be utilised and improved upon, as sites zoned for such are already inclusive to existing utility infrastructure. Thus, minimal environmental impacts are likely as a result of improving such areas.</p> <p>The implementation of this objective is likely to result in a positive effect on the population and human health and material assets, where increased provision of services are likely for the surrounding population.</p>

## 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 Plan area.

It is proposed 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.

Policies and objectives relating to improvements to the public realm and accessibility of the town centre will also positively impact the population of Kildare town.

It is proposed to provide new residential development on sites with extant permission sites where construction is already underway and on infill sites within the settlement during the lifetime of the draft Plan. S Residential development will be provided predominantly in the extant permission sites, namely the Former Magee Barracks, Oak Church (Dunmurry Road), Greyabbey View (located south of the motorway) and infill sites located within the town centre. This will seek to ensure that the longer-term development of Kildare town is provided for, aligning with the Core Strategy of the Kildare County Development Plan 2023-2029.

The promotion of enterprise and employment development throughout the town, in addition to the lands located in the south western part of the Plan area, will also result in a positive impact on the population on Kildare town, through increased job opportunities.

Positive impacts will also occur where new transport infrastructure is provided for, or existing infrastructure is upgraded through the provision of improved access through the Plan 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 Plan 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 LAP 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 south-west of the Plan 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, the construction of Northern Link Street and associated one-way streets or the creation of a walking trail/greenway from Kildare Town to the Curragh, as part of the International Thoroughbred Trail.

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

The majority of potential impacts for Land and Soils are neutral as development will primarily be consolidated within existing zoned or developed lands.

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 south-west of the Plan area, as well as where new roads are proposed.

Uncertainties will occur 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 Plan will primarily result in a neutral impact on Water as development will largely take place with 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 land to the south-west of the Plan area. Similarly, potential negative effects on water are identified where large-scale infrastructure is proposed such as new road schemes, the construction of Northern Link Street and associated one-way streets or the creation of a walking trail/ greenway from Kildare Town to the Curragh, as part of the International Thoroughbred Trail.

A Strategic Flood Risk Assessment (SFRA) has been carried out in support of the 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 Study (SWS) was also prepared as a precursor to the SFRA. The aim of the SWS is to find a municipal-level, multi-site nature-based solution(s) to surface water management for Kildare Town.

#### 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 Plan also promotes sustainable travel modes while making provisions for improved pedestrian and cycle routes in, and around the town centre. Such measures will have a positive effect on air, noise and climate.

This draft Plan 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 change mitigation.

Uncertainties will 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, but also by means of the encouragement of private vehicle use.

#### 8.4.6 Heritage

The land use zonings and objectives of the Draft Plan will primarily result in neutral impact on heritage as development will largely take place with 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 - 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 would require planning permission, such as changes to the original roofing material, windows, boundary walls etc. 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 will occur where the precise nature and extent of proposed new development is unknown and where the discovery of heritage features cannot be ruled out.

The draft Plan does however place a significant emphasis on the retention, protection and enhancement of existing heritage features within the LAP area.

There is the potential for negative impacts to occur where greenfield lands have been zoned for development - such as the land at south-west of the Plan area, as this has the potential to impact on archaeology.

#### 8.4.7 Landscape and Visual

The majority of potential impacts for landscape and visual are predominantly neutral.

A number of positive impacts on the townscape of Kildare town will likely result from the range of regeneration and urban realm proposals included in the draft Plan.

However, there is the potential for negative impacts to occur where greenfield lands have been zoned for development - such as the land at such as the land at south-west of the Plan 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, the potential impacts on Material Assets are largely considered as positive or neutral. This is because development will occur in a manner that is balanced and self-sustaining occurring in tandem with physical and social infrastructure.

The proposed consolidation of development in the town centre of Kildare town has however the potential to result in a negative impact on material assets. A 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 Kildare town's WWTP and sewer network should accommodate all development proposed under the draft Plan. However, there are deficiencies in the surface water network which are addressed, in part, by the Surface Water Study and recommended objectives of the draft Plan.

### 8.5 Interactive and Cumulative Effects

#### 8.5.1 Interactive Effects

The SEA Directive requires the Environmental Report 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 8.3 below.

**Table 8.3 Interactive Effects**

Environmental Aspect	Bio	P & HHH	L & S	Wat	A, N & 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	Yes	Yes	Yes	Yes	Yes	Yes	

### 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 occurs in combination with those of other plans, programmes, developments, etc. Other policies, plans and programmes, as outlined in Section 3.3 have therefore been considered for their potential to give rise to potential cumulative effects with LAP.

Some examples include the below and further detail and examples have been detailed in Table 8.4.

- Land use policy, plans and programmes (e.g., the Kildare County Development Plan 2023 - 2029);
- 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 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 LAP and relevant legislation, plans and programmes**

Environmental Component	Potential Cumulative effects that could generally occur across environmental components:
Population and Human Health	<ul style="list-style-type: none"> <li>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 Plan, in combination with the increased development and land-use change emanating from Kildare County Development Plan 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 LAP.</li> </ul>
Biodiversity	<ul style="list-style-type: none"> <li>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 Plan, in combination with the increased development, land-use change and associated development emanating in line with the Kildare County Development Plan 2023-2029 and other land use plans, that may affect areas in and or in close proximity to Kildare town. 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 LAP.</li> <li>There is also potential for cumulative, positive impacts on biodiversity as a result of the implementation of the draft Plan, particularly where policies and objectives within relate to biodiversity and nature conservation. The draft LAP in combination with all Management Plans for Natura 2000 sites, Threat Response Plans, the EU (2030) Biodiversity Strategy and the 4<sup>th</sup> 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 Plan, where all relevant mitigation and monitoring are undertaken.</li> </ul>
Land and Soils	<ul style="list-style-type: none"> <li>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 Plan, in combination with the increased development, land-use change and associated construction emanating in line with the Kildare County Development Plan and other Land Use Plans. The cumulative effect of such plans may affect soil quality in and or in close proximity to Kildare Town. 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 LAP.</li> </ul>
Water Resources	<ul style="list-style-type: none"> <li>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 Plan, in combination with increased development, land-use change and associated development that may emanate from the Kildare County Development Plan 2023-2029 and other Land Use Plans. Water resources in and or in close proximity to Kildare Town 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.</li> </ul> <p>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.</p>

Environmental Component	Potential Cumulative effects that could generally occur across environmental components:
	<p>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 LAP.</p> <ul style="list-style-type: none"> <li>• There is potential for cumulative, positive impacts on water quality as a result of the implementation of the draft LAP and particularly policies and objectives that relate to water conservation, the implementation of nature-based surface water management in Kildare Town etc., in combination with the Eastern Catchment Flood Risk Assessment Management (CFRAM) Study, Flood Risk Management Plans, Irish Water’s Water Services Strategic Plan 2015 and associated Proposed Capital Investment Plan (2014-2016), 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 Plan, where all relevant mitigation and monitoring are undertaken.</li> </ul>
Air and Climate	<ul style="list-style-type: none"> <li>• There is potential for cumulative, positive impacts on air quality and climate as a result of the implementation of the draft LAP and particularly where policies and 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 2023 and Kildare Town’s Transport Strategy. 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 LAP, where all relevant mitigation and monitoring are undertaken.</li> </ul>
Archaeology, Architectural and Cultural Heritage	<ul style="list-style-type: none"> <li>• 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 Plan, in combination with the increased development and land-use change emanating in line with the Kildare County Development Plans and other Land Use Plans, that may affect archaeology, architectural and cultural heritage in and or in close proximity to Kildare Town. 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 LAP.</li> </ul>
Landscape and Visual	<ul style="list-style-type: none"> <li>• 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 Plan, in combination with the increased development and land-use change emanating in line with the Kildare County Development Plan 2023-2029 and other Land Use Plans, that may affect landscape and visual in and or in close proximity to Kildare Town. 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 LAP.</li> </ul>

Environmental Component	Potential Cumulative effects that could generally occur across environmental components:
Material Assets	<ul style="list-style-type: none"> <li>• There is potential for cumulative, positive impacts on material assets as a result of the implementation of the draft LAP and particularly where policies and objectives relate, for example, 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 County Development Plan 2023-2029, 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 LAP.</li> </ul>

## 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 Plan . All mitigation measures have been developed and agreed with KCC as part of the SEA iterative process.

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

It is recommended that all legislation, policies and guidelines outlined in this Environmental Report and are adhered to. In addition, future legislation, policies and guidelines should also be fully integrated into the draft Plan and Environmental Report. 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 Environmental Report and associated Natura Impact Statement.

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	
		County Development Plan Objectives	Draft LAP Objectives
Biodiversity	<p>To afford the highest level of protection to all designated European sites and species in accordance with the relevant legislation</p> <p>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.</p> <p>To ensure no increase in nitrogen deposition at ecologically sensitive sites.</p>	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.	NHO 1.1, NHO 1.2, NHO 1.4, NHO 2.4, NHO 4.1.
	<p>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 of the EU Habitats Directive and the Planning and Development Act, 2000 (as amended)</p>	RD O34, RD O38, AH P1, AH O1, AH O3, AH O4, AH A1, AH A2, AH O8, AH O13, AH O16, AH P8, LR O8, LR T1, LR O38, 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, RE O122, RE P26, EC O26, AH O5, AH O6, AH O7, AH O10, LR O6, LR O2.	NHO 1.2.
	<p>To recognise and afford appropriate protection to any existing, new, or modified SPAs or SACs that are identified during the lifetime of the LAP</p>		
	<p>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)</p>	RD 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 O32, AH P2, AH P3, LR O21, LR O22.	IO 2.1.
	<p>To have regard to Appropriate Assessment of Plans and Projects in Ireland – Guidelines for Planning Authorities 2009 or any updated version.</p>		
	<p>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.</p>	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 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 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,	HCO 2.2, NHO 1.1, NHO 1.2, NHO 3.1, NHO 3.2.
	<p>To identify and afford appropriate protection to any new, proposed or modified NHAs identified during the lifetime of this draft Plan.</p>		

Aspect	Mitigation Measures	Relevant Objectives	
		County Development Plan Objectives	Draft LAP Objectives
		AH O39, AH P8, AH O54, AH O56, AH O64, LR O19, LR O24.	
	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.	CSO 1.3, NHO 1.1, NHO 4.3.
	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.	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 O8, AH O13, AH O16, AH P8, LR O8, LR T1, LR O38, 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 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 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 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 O1, AH 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 O24, AH P1, LR T1, EC O85, RD O29, AH O35, RE O97, RE O105, RE	IO 2.1.
	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 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.		NHO 1.4, NHO 2.4, NHO 4.1.
	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 Plan area;		HCO 2.2, NHO 1.1, NHO 1.4, NHO 2.4, NHO 2.6, NHO 4.1.
	To ensure that development proposals support and enhance the connectivity and integrity of habitats in the Plan area by incorporating natural features into the design of development proposals.		HCO 4.2, NHO 1.1, NHO 2.2, NHO 2.3, NHO 4.6.

Aspect	Mitigation Measures	Relevant Objectives	
		County Development Plan Objectives	Draft LAP Objectives
		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 Plan 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.	NHO 2.4.
	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 O38, RD O39, AH O4, AH O10, AH O23, AH O33, AH O48, AH O51, AH O64, LR A1, LR O38, RD O32, AH P2, AH P3, LR O21, LR O22.	TCO 1.2, MTO 1.1, NHO 1.2, NHO 2.1.
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.	CSO 1.1, CSO 1.2, CSO 1.3, CSO 1.8, CSO 1.9, CSO 1.10, TCO 2.1, TCO 2.3, EDO 1.1, EDO 1.2, EDO 1.4, EDO 1.5, EDO 1.7, EDO 2.1, EDO 2.5, HCO 1.1, HCO 1.2, HCO 2.1, HCO 2.4, HCO 2.5, HCO 3.1, HCO 3.2, HCO 3.3, HCO 3.4, HCO 3.5, HCO 3.6, HCO 4.1, HCO 4.3, MTO 1.10.
	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.	-

Aspect	Mitigation Measures	Relevant Objectives	
		County Development Plan Objectives	Draft LAP Objectives
	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, 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.	CSO 1.2, TCO 2.1, EDO 1.5, EDO 1.6, MTO 1.1, MTO 2.1, MTO 2.2, MTO 2.3, MTO 2.4, MTO 2.5, MTO 2.6, MTO 2.7, MTO 2.8, MTO 3.2, MTO 3.5, MTO 4.2, MTO 4.3.
Land and Soil	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.	CSO 1.2, CSO 1.7, EDO 1.2, TCO 2.3, EDO 1.3, EDO 1.8, EDO 2.5, EDO 3.3, HCO 1.3, HCO 2.1.
	To recognise the importance of Geological Heritage Sites and to protect the character and integrity of these sites	HO O48, RD O33, RD O38, AH O8, AH P10, AH O39, AH O40, AH A14, RE O90.	-
	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 Plan		
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 them as natural assets and key elements in the green infrastructure network in the county	HO O48, HO P23, RE O10, RE O110, RE P21, RE P26, TM O5, TM O17, IN P1, IN P2, IN O2, IN O3, IN O5, IN O6, IN O7, IN O8, IN O9, IN O11, IN O14, IN O16, IN O18, IN O19, IN P4, IN O20, IN O23, IN O34, IN P7, IN O52, IN O53, IN O54, RD O9, RD O19, AH P7, AH O23, AH O25, AH O26, AH O27, AH O27, AH O31, AH P8, AH O52, AH O55, LR O20, LR O25, LR O26, LR O27, LR O32, LR O59	NHO 2.2.
	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, RD O9, RD O19, AH O25, AH O26,	IO 2.1, IO 2.2, IO 2.3, IO 2.4.

Aspect	Mitigation Measures	Relevant Objectives	
		County Development Plan Objectives	Draft LAP Objectives
	<p>To protect groundwater resources in accordance with the statutory requirements and specific measures as set out in the relevant River Basin Management Plan</p> <p>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.</p> <p>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;</p> <p>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.</p>	<p>AH O27, AH O27, AH O31, AH 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, IN O2, IN O3, IN O5, IN O6, IN O7, IN O8, IN O9, IN O11, LR O20.</p>	
	<p>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.</p> <p>Comply with the objectives and policies of the Eastern Catchment Flood Risk Assessment Management Study.</p> <p>Promote SUDS principles for all drainage including the integration of storm water attenuation facilities for new developments and existing catchment areas.</p> <p>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</p> <p>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.</p>	<p>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.</p>	<p>MTO 1.1, NHO 4.3, IO 1.2, IO 2.2, IO 2.3, IO 2.4, IO 3.1.</p>
Air Noise and Climate	<p>Ensure that the objectives and policies of EU Air Quality legislation are incorporated into plans and programmes upon implementation into Irish law.</p> <p>Ensure nitrogen deposition at ecological sensitive areas is in compliance with critical loads.</p>	<p>IN O55, IN O56, IN O57, TM 0115</p>	<p>CSO 1.11.</p>



Aspect	Mitigation Measures	Relevant Objectives	
		County Development Plan Objectives	Draft LAP Objectives
	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	CSO 1.11.
	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, 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.	CSO 1.11, EDO 1.7, MTO 1.1, MTO 1.4, MTO 1.5, MTO 1.7, MTO 1.8, MTO 1.9, MTO 1.11, MTO 2.1, MTO 2.2, MTO 2.3, MTO 2.4, MTO 2.5, MTO 2.6, MTO 2.7, MTO 2.8, MTO 3.2, MTO 4.2, MTO 4.3.
	Consideration of existing noise policy in County Kildare for example noise mapping and noise action plans produced by the Local Authority.	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.	MTO 3.4, MTO 3.3.
	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.		
	To support the implementation of the Climate Change policy documents and legislation outlined in the ER.	CSO 1.8, HO O19, RE O69, RE O72, RE O82, RE O111, EC A1, EC A3, EC O20, EC O43, RD P7, AH O31, AH P13, AH O54, UDPR P1.	CSO 1.11.
	To ensure that developments do not give rise to negative effects on air quality, during both construction and operation	IN O55, IN O56, IN O57, TM 0115, EC O3, CSO 1.2, RE P12, EC P1, EC O3, TM A3, EC O30, EC O40, AH O35, LR O12, LR O13.	CSO 1.11.

Aspect	Mitigation Measures	Relevant Objectives	
		County Development Plan Objectives	Draft LAP Objectives
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	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.	TCO 1.2, TCO 1.5, EDO 3.4, BHO 1.1, BHO 1.2, BHO 1.3, BHO 1.4, BHO 2.1, BHO 2.2, BHO 2.3, BHO 2.4, BHO 2.5, BHO 2.6, BHO 4.3, BHO 4.4, BHO 4.5.
	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.		
	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.	AH O64, AH A21, AH A14, AH O51, AH O64, AH A20, LR O30, LR A10, EC O70, EC O75, AH A14, AH P8, AH O44, AH O45, AH O50, AH A14, AH O58, AH O59, LR O4, RD O32, AH O20, AH O23, AH O26, AH O28, AH O31, AH O33, AH A9, AH 21, AH O27.	TCO 1.2, TCO 1.5, TCO 2.4, EDO 3.4, BHO 1.1, BHO 1.2, BHO 1.3, BHO 1.4, BHO 2.1, BHO 2.2, BHO 2.3, BHO 2.4, BHO 2.5, BHO 2.6.
	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;		
	To safeguard sites, features and objects of archaeological interest generally;	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.	BHO 4.1, BHO 4.2.
	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.			

Aspect	Mitigation Measures	Relevant Objectives	
		County Development Plan Objectives	Draft LAP Objectives
	<p>To protect the Zones of Archaeological Potential located within both urban and rural areas as identified in the Record of Monuments and Places</p> <p>To have regard to archaeological concerns when considering proposed service schemes located in close proximity to Recorded Monuments and Places and the Zones of Archaeological Potential.</p>		
Landscape and Visual	Ensure that all new plans and programmes incorporate the findings of the County Landscape Character Assessments.	<p>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 O48, 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.</p>	<p>TCO 2.4, TCO 1.6, EDO 1.7, EDO 3.1, EDO 3.3, EDO 3.4, EDO 3.7, EDO 3.8, HCO 4.7, MTO 1.6, BHO 1.1, BHO 1.2, BHO 1.3, BHO 1.4, BHO 2.1, BHO 2.2, BHO 2.3, BHO 2.4, BHO 2.5, BHO 2.6, BHO 4.3, BHO 4.4, BHO 4.5, NHO 2.6, NHO 4.3, BHO 4.1.</p>
	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 Kildare town'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.		
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.	<p>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.</p>	<p>IO 5.1, IO 5.2, IO 5.3.</p>
	Encourage waste prevention, minimisation, reuse, recycling and recovery as methods of managing waste.		

Aspect	Mitigation Measures	Relevant Objectives	
		County Development Plan Objectives	Draft 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 O9, EC O10, EC A2, EC A3, EC P4, EC O11, EC O12, EC O13, EC O14, EC T1, EC P5, EC O18, EC O19, EC P6, EC O26, EC O30, EC P7, EC P9, EC O34, EC P10, EC P11, EC O36, EC A4, EC O38, EC P14, EC O42, EC O43, EC A5, EC T3, EC O49, EC O52, EC O54, EC O55, EC O56, EC O57, EC O58, EC O60, EC O61, EC O64, EC O68, RD P1, RD O2, RD O7, RD O10, RD O29, AH O37, LR O28, LR O60.	IO 4.1, IO 4.4.
	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, IN P3, IN O12, IN O13, IN O14, IN O15, IN O18, IN O19, IN O28.	IO 1.1, IO 1.2.
	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 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.	MTO 1.1, MTO 1.4, MTO 1.5, MTO 1.7, MTO 1.8, MTO 1.9, MTO 1.11, MTO 2.1, MTO 2.2, MTO 2.3, MTO 2.4, MTO 2.5, MTO 2.6, MTO 2.7, MTO 2.8, MTO 3.2, MTO 4.2, MTO 4.3.

## 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 draft Plan.

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 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)<sup>50</sup>. 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 LAP.

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

KCC is 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.

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<sup>50</sup> EPA (2020) Guidance on SEA Statements and Monitoring. Available at: [Strategic Environmental Assessment | Environmental Protection Agency \(epa.ie\)](#)

**Table 9.2 Proposed monitoring for the draft LAP**

Environmental Component	Draft SEA Indicators	Monitoring Sources	Frequency/Responsibility
Biodiversity	<p>Number and condition of Natura 2000 network, European sites, as per Article 17 Reports, and the maintenance of conservation objectives.</p> <p>Achievement of favourable conservation status of designated sites.</p> <p>Population and range of Designated Species.</p> <p>Achievement of the Objectives of Kildare’s Biodiversity Plan and Kildare County Development Plan.</p> <p>Level of baseline biodiversity conditions in the LAP area to post-development conditions, particularly but not limited to, quantifying and monitoring the area of hedgerow, native woodland, semi-natural grassland, peat based and/or heath habitat loss within the lifetime of the LAP.</p> <p>Nitrogen deposition loads.</p>	<p>The Status of EU Protected Habitats and Species in Ireland Article 17 Report (Department of Housing, Local Government and Heritage)</p> <p>Monitoring of the effects of capital investment project development required under separate processes (EIA, AA).</p> <p>Department of Housing, Local Government and Heritage report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive.</p> <p>Monitoring related to other relevant Local Area Plans and County/City Development Plans.</p> <p>Monitoring related to Kildare’s Biodiversity Action 2021-2025.</p> <p>EPA State of the Environment Report 2020.</p> <p>Monitoring of the effects of capital investment project development required under separate processes (EIA, AA).</p> <p>EPA Air quality monitoring reports</p>	<p>DHLGH, every 6 years.</p> <p>In accordance with the monitoring provisions of EIA/ AA.</p> <p>Department of Housing, Local Government and Heritage (DHLGH). Every 6 years.</p> <p>In accordance with the monitoring provisions of the lower-level plans.</p> <p>KCC, annual review of the of Biodiversity Action Plan.</p> <p>EPA. every 4 years.</p> <p>In accordance with the monitoring provisions of EIA/ AA.</p> <p>EPA annual air quality monitoring.</p>
	<p>Status of Annex 1 habitats and species as per Article 17 Reports.</p> <p>Level of habitat creation, habitat removal, habitat fragmentation within the LAP boundary.</p> <p>Achievement of favourable conservation status of designated sites located within the LAP boundary.</p> <p>Population and range of Protected and Red List Species within the LAP boundary.</p>	<p>Department of Housing, Local Government and Heritage report of the implementation of the measures contained in the Habitats Directive - as required by Article 17 of the Directive.</p> <p>Updates to National Red List Check List</p> <p>Monitoring related to other relevant Local Area Plans and County/City Development Plans</p> <p>Monitoring of the effects of capital investment project development required under separate processes (EIA, AA)</p> <p>Fish habitat and ecology surveys</p> <p>Targeted Local Catchment Assessments</p>	<p>Department of Housing, Local Government and Heritage (DHLGH). Every 6 years.</p> <p>NPWS, varies</p> <p>In accordance with the monitoring provisions of the lower-level plans.</p> <p>In accordance with the monitoring provisions of EIA/ AA.</p> <p>IFI, varies.</p> <p>LAWPRO Catchment Scientists, varies.</p>

Environmental Component	Draft SEA Indicators	Monitoring Sources	Frequency/Responsibility
	<p>Achievement of the Objectives of the National Biodiversity Action Plan and Kildare's Biodiversity Action Plan.</p> <p>Status of water quality in the country's water bodies (WFD).</p> <p>Number of incidences of invasive species, eutrophication and or water pollution.</p> <p>Protected Freshwater Species</p> <p>Protected Bird Species - BOCCI</p>	<p>Monitoring related to other relevant Local Area Plans and County/City Development Plans.</p> <p>EPA State of the Environment Report 2020.</p> <p>Ireland's National Water Framework Directive Monitoring Programme, 2019-2021.</p> <p>EPA Water Quality of Ireland 2020 Report.</p> <p>Inland Fisheries Ireland – Protected Freshwater Species – Atlantic Salmon etc – trends in protected freshwater species, population, distribution, health etc.</p> <p>Birds of Conservation Concern Ireland – Monitoring by Birdwatch Ireland on status, distribution, population etc.</p>	<p>In accordance with the monitoring provisions of the lower-level plans.</p> <p>EPA, every 4 years.</p> <p>EPA, continuously.</p> <p>EPA, continuously.</p> <p>Inland Fisheries Ireland, varies.</p> <p>Birdwatch Ireland, every 6 years.</p>
	<p>Location and scale of new development arising as a result of the LAP.</p> <p>The number of provisions of green/blue infrastructure within the LAP boundary.</p>	<p>Monitoring related to other relevant Local Area Plans and County/City Development Plans</p> <p>Monitoring of the effects of capital investment project development required under separate processes (EIA, AA)</p>	<p>In accordance with the monitoring provisions of the lower-level plans.</p> <p>In accordance with the monitoring provisions of EIA/ AA.</p>
Population and Human Health	<p>Changes in trends in perceived health status within the LAP boundary.</p> <p>Changes in census population statistics within Kildare Town.</p> <p>Rates of unemployment per area.</p> <p>Statistics on access to sustainable modes of transport.</p> <p>Percentage increase in housing (number and type).</p> <p>Number of compliances of wastewater infrastructure to legislation/regulations/conditions for relevant licences, permits etc. for discharges.</p> <p>Number of compliances of water supply schemes with relevant legislation/regulation/conditions for abstraction and consumption.</p>	<p>CSO Census Reports – Health, Population, Employment and Transport Statistics.</p> <p>Monitoring of the effects of capital investment project development required under separate processes (EIA, AA)</p> <p>Monitoring related to other relevant Local Area Plans and County/City Development Plans or RSESS.</p> <p>EPA State of the Environment Report 2020.</p> <p>EPA Remedial Action Lists.</p> <p>Irish Water and National Federation of Group Water Schemes water quality monitoring and Source Protection Plans, EPA drinking water quality monitoring</p> <p>EPA Urban Wastewater Treatment Reports.</p> <p>Monitoring for KCC's Third Noise Action Plan 2019 – 2023.</p>	<p>Central Statistics Office, every 6 years.</p> <p>In accordance with the monitoring provisions of EIA/ AA</p> <p>In accordance with the monitoring provisions of the lower-level plans.</p> <p>EPA, every 4 years.</p> <p>The EPA releases a Remedial Action List every Quarter which identifies problems with drinking water supply. KCC should have regard to issues pertaining to KCC water treatment plants.</p> <p>EPA, annual reports.</p> <p>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 KCC treatment plants.</p> <p>KCC, varies.</p>

Environmental Component	Draft SEA Indicators	Monitoring Sources	Frequency/Responsibility
	<p>Number of compliances of infrastructure projects to relevant legislation/regulation/conditions re - noise, odour and/or air quality.</p> <p>Number of compliances of waste management sites.</p> <p>Implementation of the Noise Action Plan and relevant limit values.</p>		
	<p>Number of new and or improved recreational facilities and or routes related to the new LAP.</p> <p>Number of people utilising recreational areas within the LAP boundary.</p> <p>Number of public rights of way lost through the LAP boundary.</p> <p>Number and scale of new development arising as a result of the LAP.</p>	<p>Monitoring of the effects of capital investment project development required under separate processes (EIA, AA)</p> <p>Monitoring related to relevant Local Area Plans and County/City Development Plans or RSES's, particularly LAP Quarterly Reviews.</p>	<p>In accordance with the monitoring provisions of EIA/ AA.</p> <p>In accordance with the monitoring provisions of the lower-level plans. Quarterly review basis.</p>
	<p>Economic growth statistics within the LAP boundary.</p> <p>Rates of unemployment in Kildare Town.</p> <p>Rates of employment in Kildare Town.</p>	<p>Monitoring of the effects of capital investment project development required under separate processes (EIA, AA)</p> <p>Monitoring related to relevant Local Area Plans and County/City Development Plans or RSES's, particularly LAP Quarterly Reviews.</p> <p>CSO Census Reports – Employment and Economic data.</p>	<p>In accordance with the monitoring provisions of EIA/ AA.</p> <p>In accordance with the monitoring provisions of the lower-level plans. Quarterly review basis.</p> <p>Central Statistics Office, every 6 years.</p>
Land and Soil	<p>Incidences of soil contamination.</p> <p>Erosion and sedimentation rates of soils within the LAP boundary.</p> <p>Nitrogen deposition rates.</p> <p>Number and condition of designated geological features.</p>	<p>Monitoring of the effects of capital investment project development required under separate processes (EIA, AA)</p> <p>EPA State of the Environment Report 2020.</p> <p>Monitoring for Geological Survey Irelands (GSI) Database.</p>	<p>In accordance with the monitoring provisions of EIA/ AA</p> <p>EPA, every 4 years.</p> <p>GSI, varies.</p>



Environmental Component	Draft SEA Indicators	Monitoring Sources	Frequency/Responsibility
	Rates of brownfield site and contaminated land reuse and development. Rates of greenfield development.	Monitoring related to relevant Local Area Plans and County/City Development Plans or RSES's. CORINE mapping resurvey.	In accordance with the monitoring provisions of the lower-level plans. EPA, varies.
	Rates of re-use/recycling of construction waste. Quantity of waste sent to landfill within the LPA boundary. Number of bring banks in the Plan area. Achievement of the Objectives of the Eastern Midlands Region Waste Management Plan 2015-2021.	EPA National Waste Statistics Summary Report. The annual report on the implementation of the Eastern-Midlands Region Waste Management Plan.	EPA, annually. The Regional Waste Office, annually.
	Number and condition of designated geological features. Number of new developments in proximity to designated geological site.	Monitoring for Geological Survey Irelands (GSI) Database. Monitoring of the effects of capital investment project development required under separate processes (EIA, AA)	GSI, varies. In accordance with the monitoring provisions of EIA/ AA.
Water	Proportion of water bodies in the LAP boundary meeting their WFD Ecological Status objectives, as reported by the EPA Water Monitoring Programme for the WFD. The number of waterbodies within the LAP boundary that have deteriorated in ecological status or chemical status. Compliance of surface waters with national and international standards. Status of aquatic habitats and species within the LAP boundary, particularly the status of the Curragh Aquifer. Compliance with the recommendations outlined in Kildare Towns Surface Water Management Study.	Ireland's National Water Framework Directive Monitoring Programme, 2019-2021. River Basin Management Plan for Ireland 2018 -2021 (2022 – 2027) The Status of EU Protected Habitats and Species in Ireland Report (Department of Housing, Local Government and Heritage) EPA Water Quality of Ireland 2020 Report. EPA State of the Environment Report 2020. Monitoring of the Curragh Aquifer Status. Kildare Town Surface Water Study.	EPA, continuously. DHLGH, every 6 years. EPA, continuously. EPA, every 4 years. KCC, continuously. KCC, continuously.
	Number and location of nature-based solutions incorporated into the LAP boundary.	Monitoring of the effects of capital investment project development required under separate processes (EIA, AA)	In accordance with the monitoring provisions of EIA/ AA.

Environmental Component	Draft SEA Indicators	Monitoring Sources	Frequency/Responsibility
	<p>Achievement of the Objectives of the River Basin Management Plan.</p> <p>Compliance of surface and ground waters with national and international standards</p>	<p>Monitoring of the effects of capital investment project development required under separate processes (EIA, AA)</p> <p>EPA Water Quality Status for surface and ground water.</p> <p>EPA Risk Status for surface and ground water.</p> <p>Ireland's National Water Framework Directive Monitoring Programme.</p>	<p>In accordance with the monitoring provisions of EIA/ AA.</p> <p>EPA, varies.</p> <p>EPA, varies.</p> <p>EPA, continuous.</p>
	<p>Number of past flood risk events within the LAP boundary.</p> <p>Annual costs of damage related to flood events within the LAP area.</p>	<p>Monitoring in the Review of Flood Risk Management Plans 2021.</p> <p>Monitoring for the EPA Catchments Unit and Local Authority Waters Programme.</p>	<p>OPW, every 3 years.</p> <p>EPA Catchment Unit, DHLGH and relevant local authorities, varies.</p>
Air, Noise and Climate	<p>Air Quality Monitoring Result in Ireland, both national and region-specific air emission data.</p> <p>Compliance with EPA emission limits for sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter.</p> <p>Number of compliances with EPA emission limits for sulphur dioxide, nitrogen oxides, volatile organic compounds, ammonia and fine particulate matter.</p> <p>Number of compliances with existing legislation/regulations/conditions for air quality e.g., IPPC/IE.</p> <p>Compliance with nitrogen deposition critical loads.</p>	<p>EPA Air Quality Monitoring.</p> <p>Monitoring in the Air Quality for Ireland 2021 Report.</p> <p>EPA State of the Environment Report.</p>	<p>EPA, continuously.</p> <p>EPA, annually.</p> <p>EPA, every 4 years.</p>
	<p>Compliance with national Air Quality Standards (AQS) and critical loads.</p> <p>Traffic, Transport and Vehicular survey data with the LAP boundary.</p> <p>Emission air, noise data from licensed facilities.</p>	<p>Air Quality Monitoring Stations around Ireland.</p> <p>EPA State of the Environment Report 2020.</p> <p>Monitoring related to relevant Local Area Plans and County/City Development Plans or RSES's such as noise action plans.</p>	<p>EPA, continuous.</p> <p>EPA, every 4 years.</p> <p>Any monitoring data carried out by KCC as part of LAP reviews should be gathered, accumulated and analysed by KCC, as available (at least every 6 years).</p>

Environmental Component	Draft SEA Indicators	Monitoring Sources	Frequency/Responsibility
	<p>Travel patterns and the number of modes of transport within Kildare Town.</p> <p>Number of new air monitoring stations in Kildare Town.</p> <p>Implementation of the LAP, which will contribute towards the overall CDP and facilitate climate action and the relevant targets for emission reductions.</p> <p>Proportion of journeys made by private fossil fuel-based car compared to previous levels.</p> <p>Proportion of people reporting regular cycling / walking to school and work above previous CSO figures.</p> <p>Energy consumption, the amount of uptake in renewable options and solid fuels for residential heating.</p> <p>Rates of energy and or renewable energy consumption.</p> <p>The quantity of GHG emission increases within the LAP boundary over the plan period.</p> <p>GHG emission reductions over the Plan period.</p> <p>Noise monitoring data from any new developments arising as a result of the LAP.</p> <p>Onsite dust monitoring of new development.</p>	<p>EPA Air Quality in Ireland Report 2021.</p> <p>EPA Air Quality Monitoring Stations across Ireland.</p> <p>Monitoring related to relevant Local Area Plans and County/City Development Plans or RSES's.</p> <p>EPA Greenhouse Gas Reports.</p> <p>CSO Census Reports</p> <p>Sustainable Energy Authority of Ireland (SEAI) - Monitoring of Renewable Energy Sources in Ireland.</p> <p>Monitoring related to Local Authority Climate Action Plans,</p> <p>EPA Greenhouse Gas Emissions Report.</p> <p>EPA Climate Change Projections.</p> <p>Monitoring of the effects of capital investment project development required under separate processes (EIA, AA).</p>	<p>EPA, annually.</p> <p>EPA, continuously.</p> <p>In accordance with the monitoring provisions of the lower-level plans</p> <p>EPA, annually.</p> <p>CSO, every 6 years.</p> <p>SEAI, varies.</p> <p>KCC, every 5 years.</p> <p>EPA reports sectorally on an annual basis.</p> <p>EPA, varies.</p> <p>In accordance with the monitoring provisions of EIA/ AA</p>

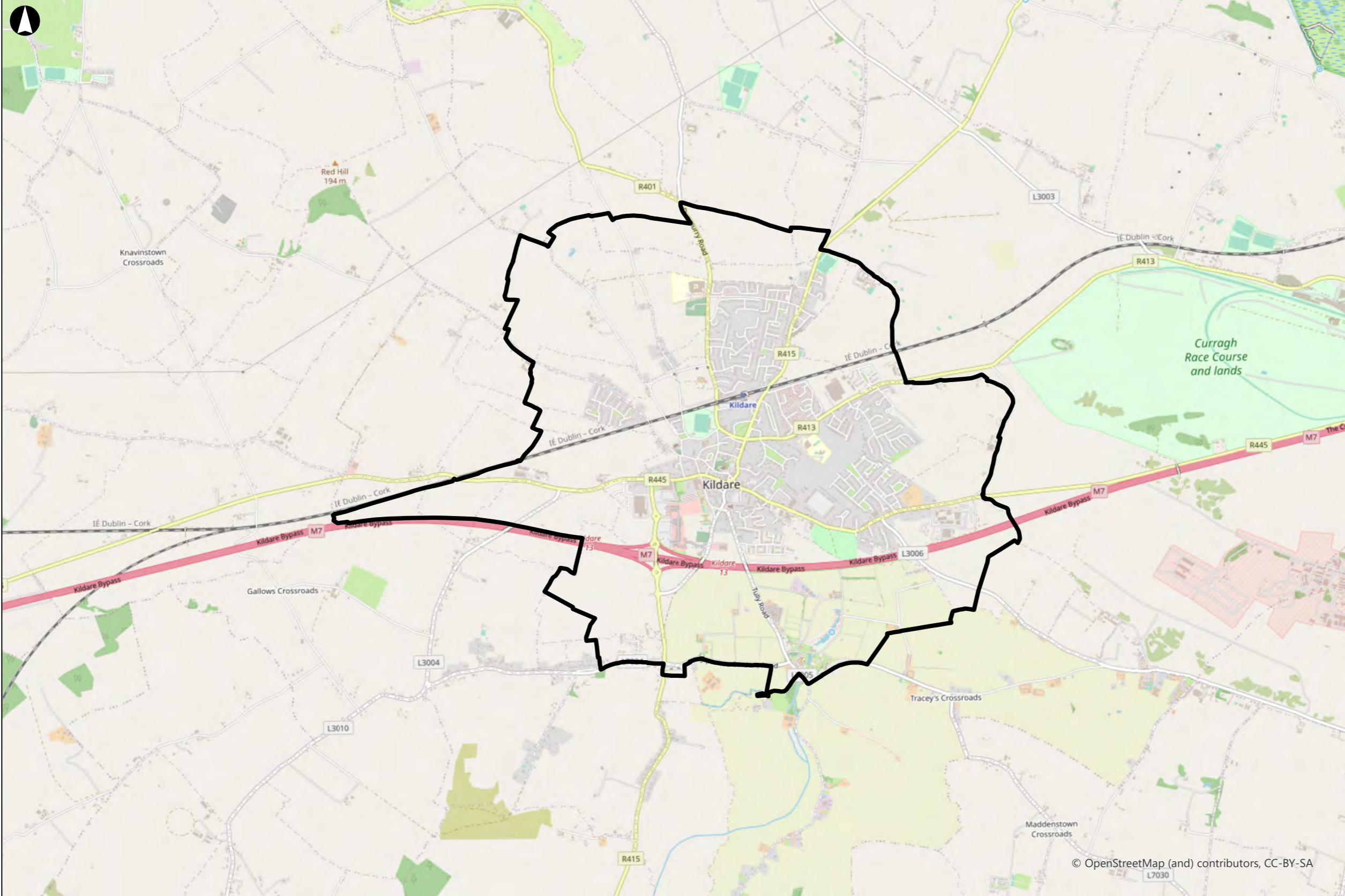
Environmental Component	Draft SEA Indicators	Monitoring Sources	Frequency/Responsibility
Archaeological, Architectural and Cultural Heritage	<p>Percentage of entries to the Record of Monuments and Places, and the context these entries within the surrounding landscape where relevant, protected from adverse effects resulting from development which is granted permission under the LAP in line with Kildare's CDP.</p> <p>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 LAP in line with Kildare's CDP.</p> <p>Recorded numbers of non-designated built heritage e.g., vernacular buildings.</p> <p>Range and extent of areas of heritage potential within the LAP boundary.</p> <p>Number of uninhabited and derelict structures within the LAP boundary.</p> <p>Range and extent of areas of special planning controls.</p> <p>Archaeological Impact Assessments related to development, and or the number and types of archaeological investigations undertaken within the LAP boundary.</p> <p>Educational facilities and or opportunities to promote awareness of natural and cultural heritage.</p>	<p>An Bord Pleanala/Kildare County Council Planning Records.</p> <p>Registers of nationally protected sites and structures.</p> <p>The National Inventory of Architectural Heritage.</p> <p>Monitoring of the effects of capital investment project development required under separate processes (EIA, AA)</p> <p>Monitoring related to relevant Local Area Plans and County/City Development Plans or RSES's.</p> <p>County Kildare Heritage Plan 2019-2025.</p>	<p>Planning records from An Bord Pleanala or KCC 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.</p> <p>NPWS (National Parks and Wildlife Services), NMS (National Monuments Service), UNESCO, continually.</p> <p>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.</p> <p>In accordance with the monitoring provisions of EIA/ AA</p> <p>In accordance with the monitoring provisions of the lower-level plans.</p> <p>The Heritage Council, varies.</p> <p>KCC, County Kildare Heritage Forum, every six years.</p>

Environmental Component	Draft SEA Indicators	Monitoring Sources	Frequency/Responsibility
Landscape and Visual	<p>Compliance with planning conditions relating to landscape and development.</p> <p>Range and extent of Amenity Landscapes.</p> <p>Rates of development within designated landscapes.</p> <p>Rates of urban expansion.</p> <p>Rates of agricultural land re-development.</p> <p>Percentage change of land use from rural to urban.</p>	<p>An Bord Pleanala Planning Records.</p> <p>Monitoring related to relevant Local Area Plans and County/City Development Plans or RSES's.</p> <p>Monitoring of the effects of capital investment project development required under separate processes (EIA, AA).</p> <p>Corrine mapping resurveys.</p>	<p>Planning records from An Bord Pleanala 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.</p> <p>In accordance with the monitoring provisions of the lower-level plans.</p> <p>In accordance with the monitoring provisions of EIA/ AA. EPA, varies.</p>
	<p>Number of planning permissions granted in areas of high value landscape.</p> <p>Number of permissions granted within 500m of a scenic route.</p>	<p>An Bord Pleanala Planning Records.</p> <p>Monitoring related to relevant Local Area Plans and County/City Development Plans or RSES's e.g., Landscape Character Assessments as part of County Development Plans.</p> <p>Corrine mapping resurveys.</p>	<p>Planning records from An Bord Pleanala 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.</p> <p>In accordance with the monitoring provisions of the lower-level plans – Relevant Local Authority - KCC, continuously.</p> <p>EPA, varies.</p>
Material Assets	<p>Location and or level of infrastructure arising as a result of the LAP, including renewable energy developments granted planning permission.</p> <p>Achievement of development plan objectives.</p> <p>Rates of deprivation within Kildare Town.</p> <p>Economic statistics for Kildare Town.</p> <p>Employment Statistics for Kildare Town.</p> <p>Achievement of Ireland's legally binding GHG reduction targets and net zero requirements, including renewable energy targets and percentage renewable energy use within the LAP boundary.</p>	<p>An Bord Pleanala Planning Records.</p> <p>Monitoring related to relevant Local Area Plans and County/City Development Plans or RSES's.</p> <p>CSO Population, Health, Economic and Employment statistics.</p> <p>Sustainable Energy Authority of Ireland (SEAI) – Monitoring of Renewable Energy in Ireland.</p> <p>Monitoring related to relevant Local Area Plans and County/City Development Plans or RSES's.</p> <p>Monitoring of the effects of capital investment project development required under separate processes (EIA, AA).</p> <p>Monitoring related to Local Authority Climate Action Plans.</p> <p>Kildare Town's Surface Water Study.</p>	<p>Planning records from An Bord Pleanala 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.</p> <p>In accordance with the monitoring provisions of the lower-level plans – Relevant Local Authority - KCC, continuously.</p> <p>CSO, every 6 years.</p> <p>SEAI, varies.</p> <p>In accordance with the monitoring provisions of the lower-level plans – Relevant Local Authority - KCC, continuously.</p>

Environmental Component	Draft SEA Indicators	Monitoring Sources	Frequency/Responsibility
	Compliance with the recommendations as outlined in Kildare Town’s Surface Water Study.		In accordance with the monitoring provisions of EIA/ AA. KCC, every 5 years. KCC, continuously.
	Proportion of people reporting regular cycling / walking to school and work above previous CSO figures.  The amount of access to sustainable modes of transport.  Location and/or level of transport related infrastructure arising as a result of the LAP in line with all higher-level plans.  Innovation and technological advancements within the LAP boundary and the success rates of such.	CSO Transport data.  Monitoring related to relevant Local Area Plans and County/City Development Plans or RSES’s.  Monitoring of the effects of capital investment project development required under separate processes (EIA, AA).  An Bord Pleanala/Relevant County Council Planning Records.	CSO, every 6 years.  In accordance with the monitoring provisions of the lower-level plans – Relevant Local Authority - KCC, continuously.  In accordance with the monitoring provisions of EIA/ AA.  Planning records from An Bord Pleanala 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.
	Rate of waste disposal to landfill statistics.  Range and extent of recycling facilities and services.  Rates of recycling.  Achievement of the objectives of the Eastern Midlands Region Waste Management Plan 2015-2021.	EPA National Waste Statistics Summary Report.  EPA State of the Environment Report 2020.  The annual report on the implementation of the Eastern-Midlands Region Waste Management Plan.	EPA, annually.  EPA, every 4 years.  The Regional Waste Office, annually.
	The number and extent of Water Treatment Plans on EPA’s Remedial Action List with the LAP boundary.  Upgrades to Kildare Town Wastewater Treatment Plant.	Monitoring for the EPA’s Remedial Action List.  EPA Urban Wastewater Treatment Reports.	The EPA releases a Remedial Action List every Quarter which identifies problems with drinking water supply. KCC should have regard to issues pertaining to KCC water treatment plants.  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 KCC treatment plants

# Appendix A

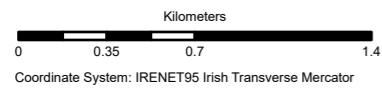
## Combined Figures



**Legend**  
**Kildare LAP 2023-2029 Boundary**  
 Kildare LAP 2023-2029 Boundary

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Project Title

**Kildare Town Local Area Plan  
 2023-2029**

Drawing Title

**Extent of the Plan (LAP Boundary)**

Scale at A3

**1:30,000**

Date

**23/09/2022**

Figure Number

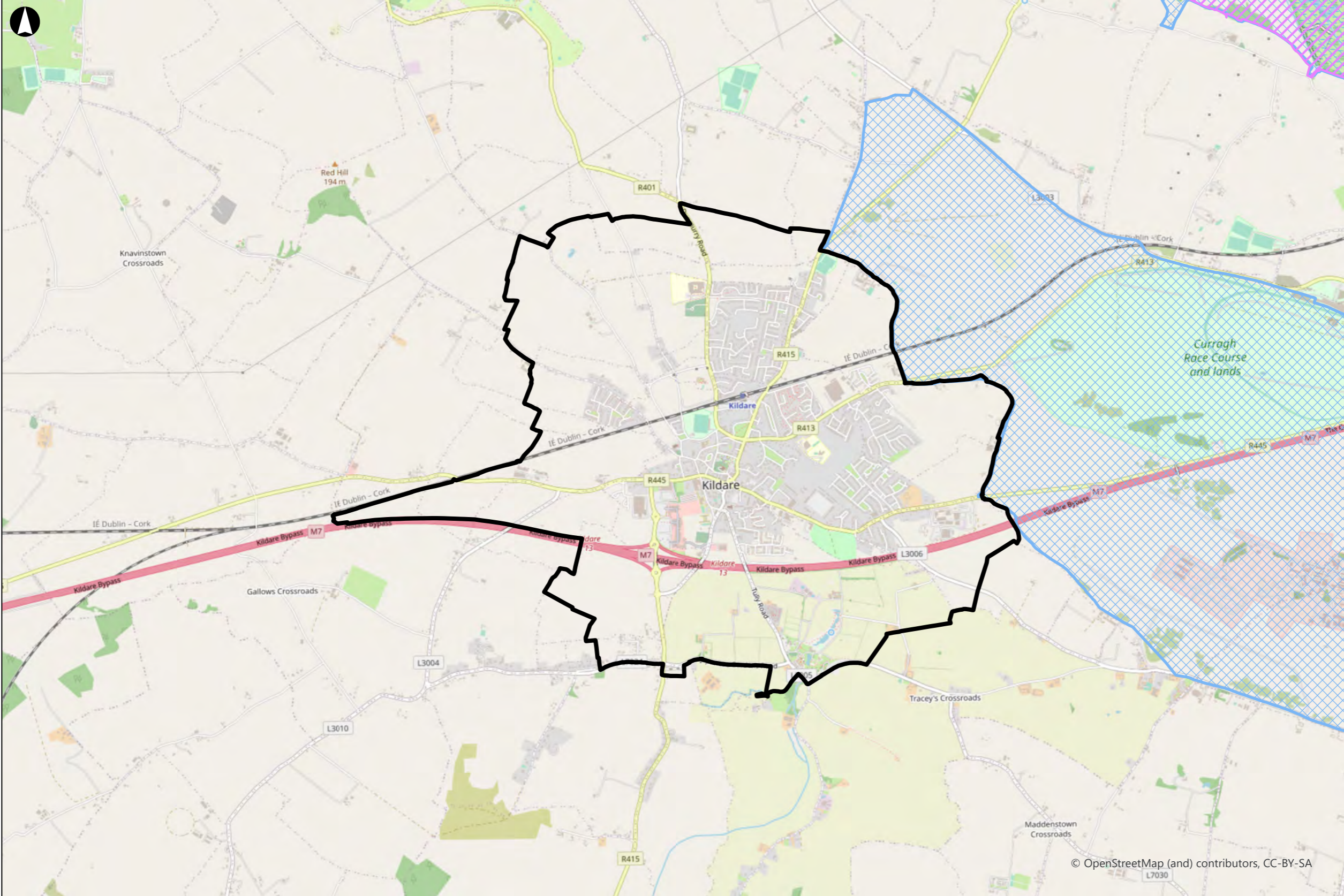
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Arup Job No

**278388-00**

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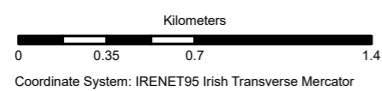
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**Kildare LAP 2023-2029 Boundary**

- Kildare LAP 2023-2029 Boundary
- Special Areas of Conservation (SAC)
- Proposed National Heritage Areas (pNHA)

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Project Title

**Kildare Town Local Area Plan  
2023-2029**

Drawing Title

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

Scale at A3

**1:30,000**

Date

**23/09/2022**

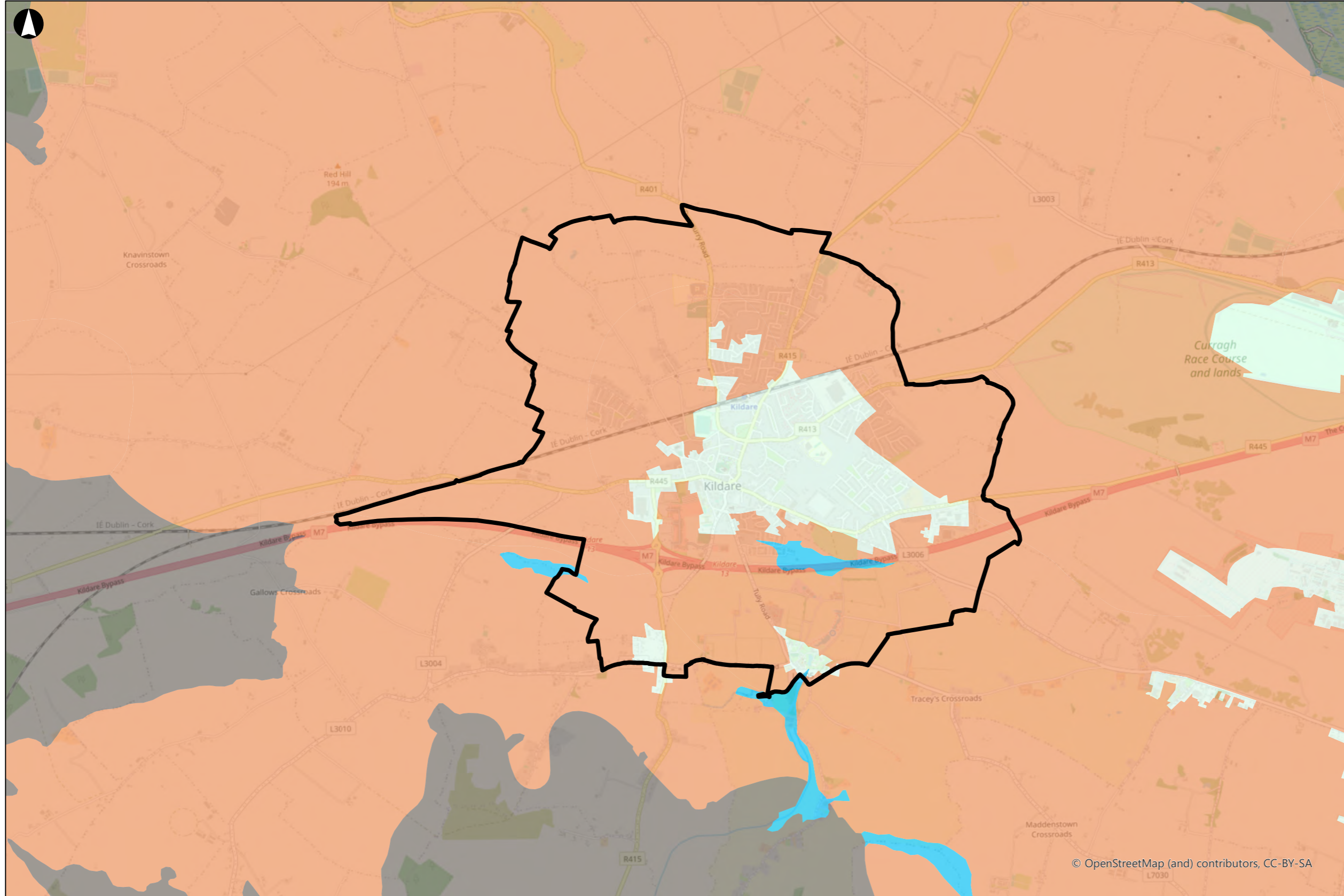
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Arup Job No

**278388-00**

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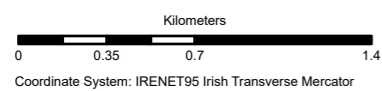
**Kildare LAP 2023-2029 Boundary**  
 Kildare LAP 2023-2029 Boundary

**Soils (ISIS)**

- 05RIV - River
- 1000a - Elton
- 1000c - Elton
- 1000x - Elton
- 1xx - Peat
- Urban

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Project Title  
**Kildare Town Local Area Plan  
 2023-2029**

Drawing Title  
**Teagasc Soils**

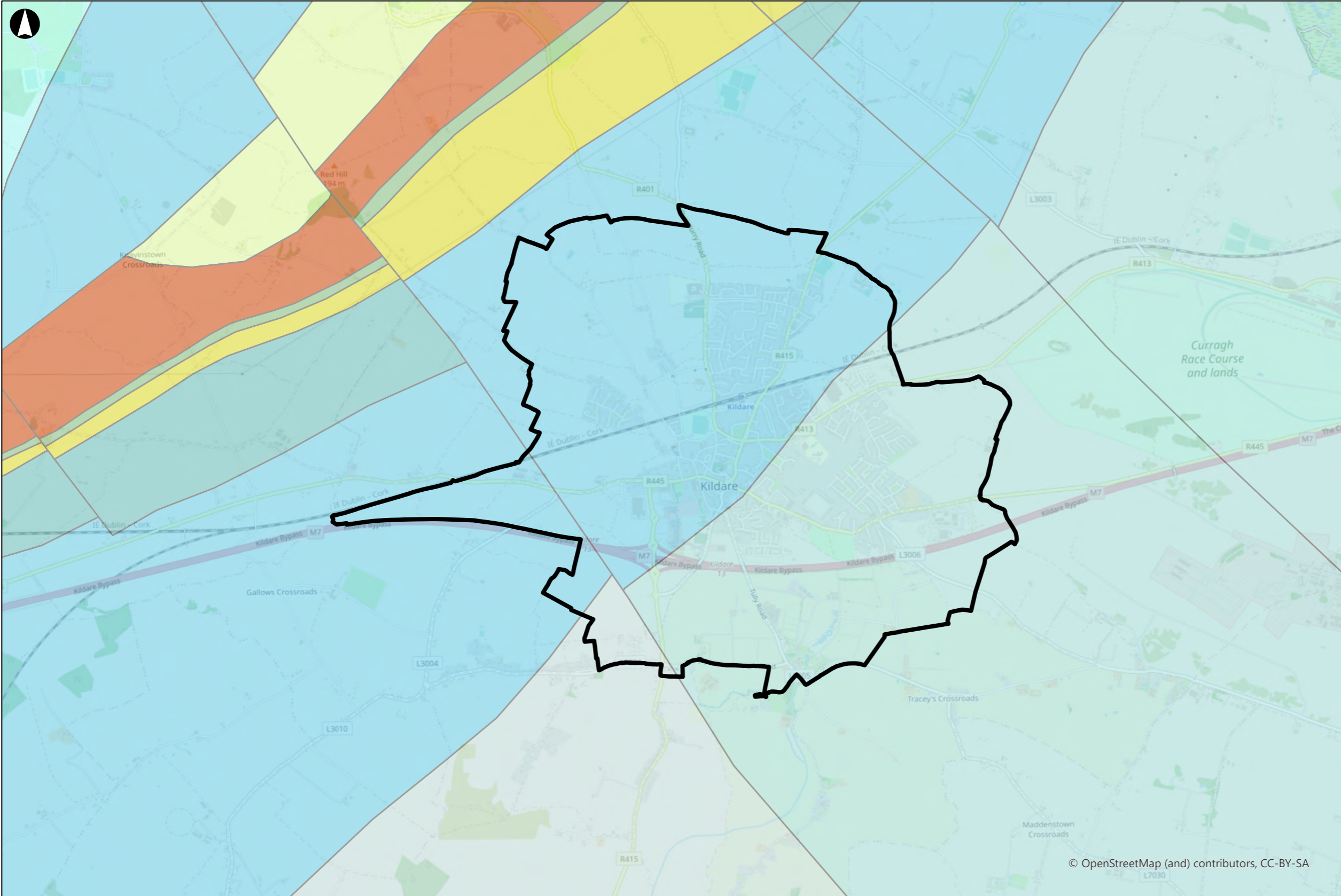
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Figure Number  
**Fig A3**

Arup Job No  
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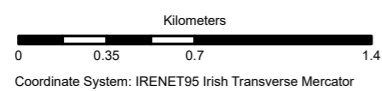
**Legend**

**Kildare LAP 2023-2029 Boundary**  
 Kildare LAP 2023-2029 Boundary

**Bedrock Geology**

- Allenwood Formation
- Boston Hill Formation
- Cloghan Sandstone Formation
- Dunmurry Formation
- Feighcullen Formation
- Ferbane Mudstone Formation
- Milford Formation
- Old Red Sandstone (undifferentiated)
- Rickardstown Formation

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Coordinate System: IREN95 Irish Transverse Mercator

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Project Title  
**Kildare Town Local Area Plan  
 2023-2029**

Drawing Title  
**GSI Bedrock Geology**

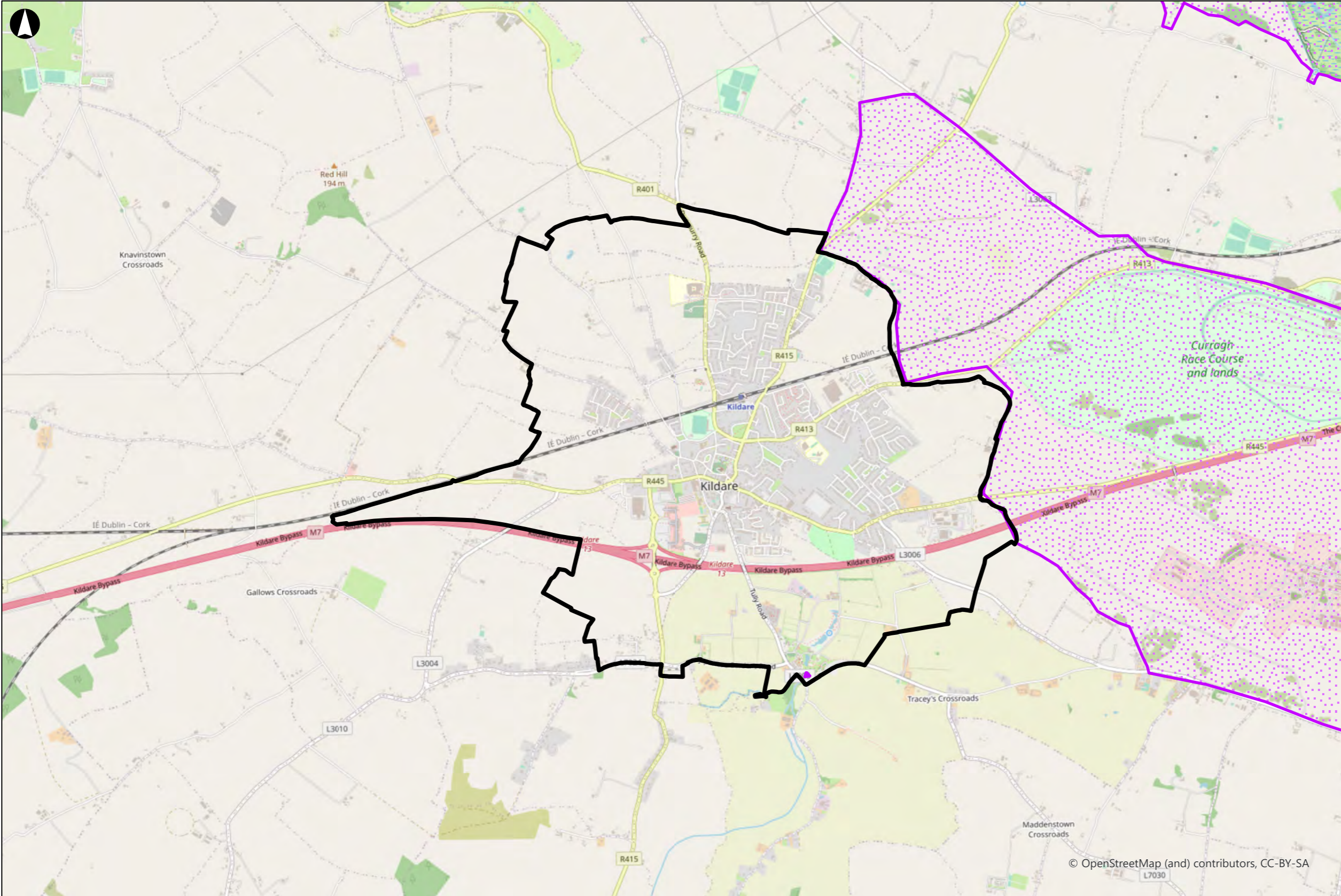
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Figure Number  
**Fig A4**

Arup Job No  
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Rev
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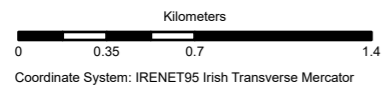


**Legend**

**Kildare LAP 2023-2029 Boundary**

- Kildare LAP 2023-2029 Boundary
- GSI Geological Heritage Sites

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Project Title

**Kildare Town Local Area Plan  
2023-2029**

Drawing Title

**GSI Geological Heritage Sites**

Scale at A3

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Date

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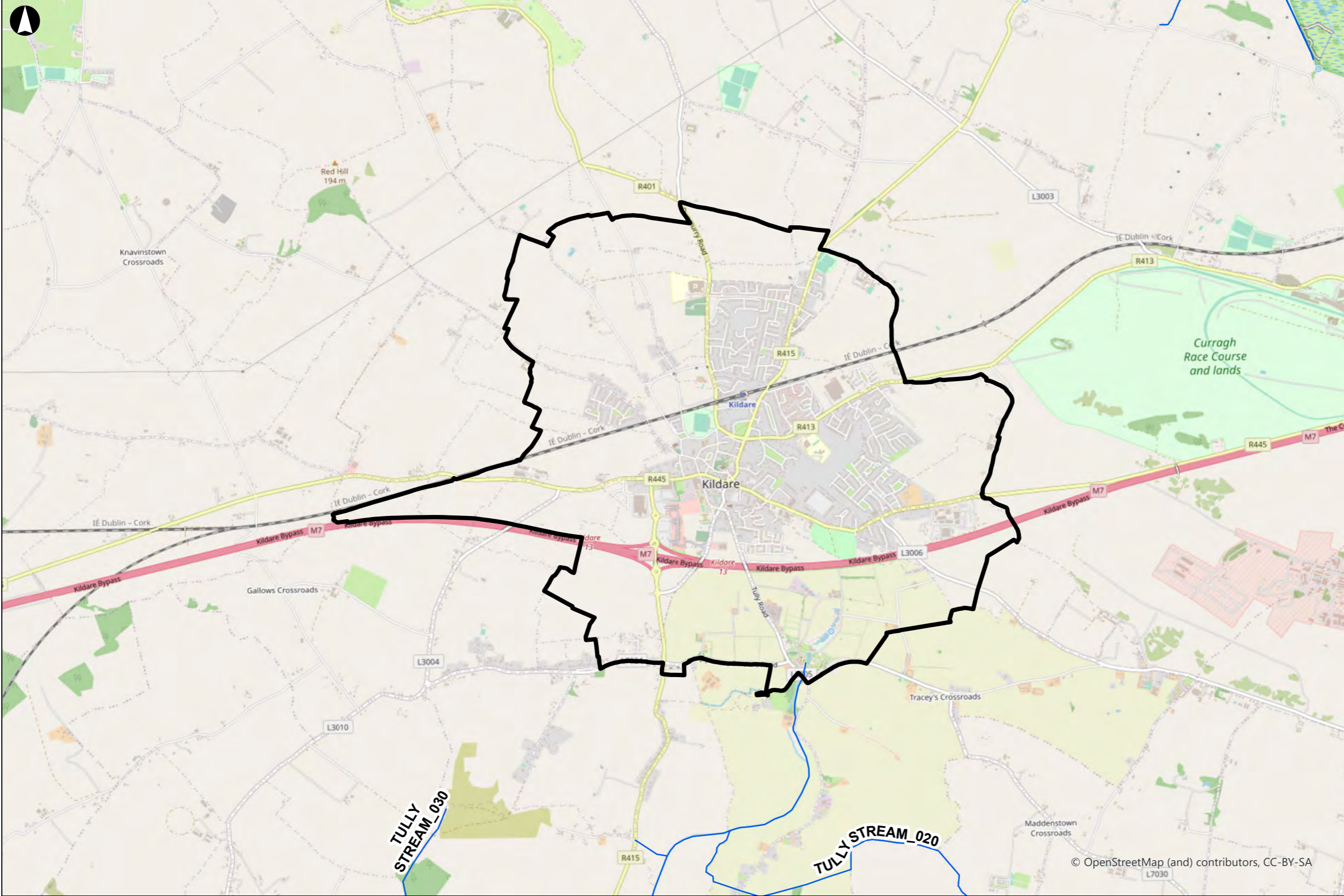
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Arup Job No

**278388-00**

Rev



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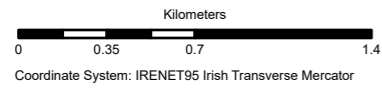
**Kildare LAP 2023-2029 Boundary**

Kildare LAP 2023-2029 Boundary

EPA River Network

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Project Title

**Kildare Town Local Area Plan  
2023-2029**

Drawing Title

**EPA River Network**

Scale at A3

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Date

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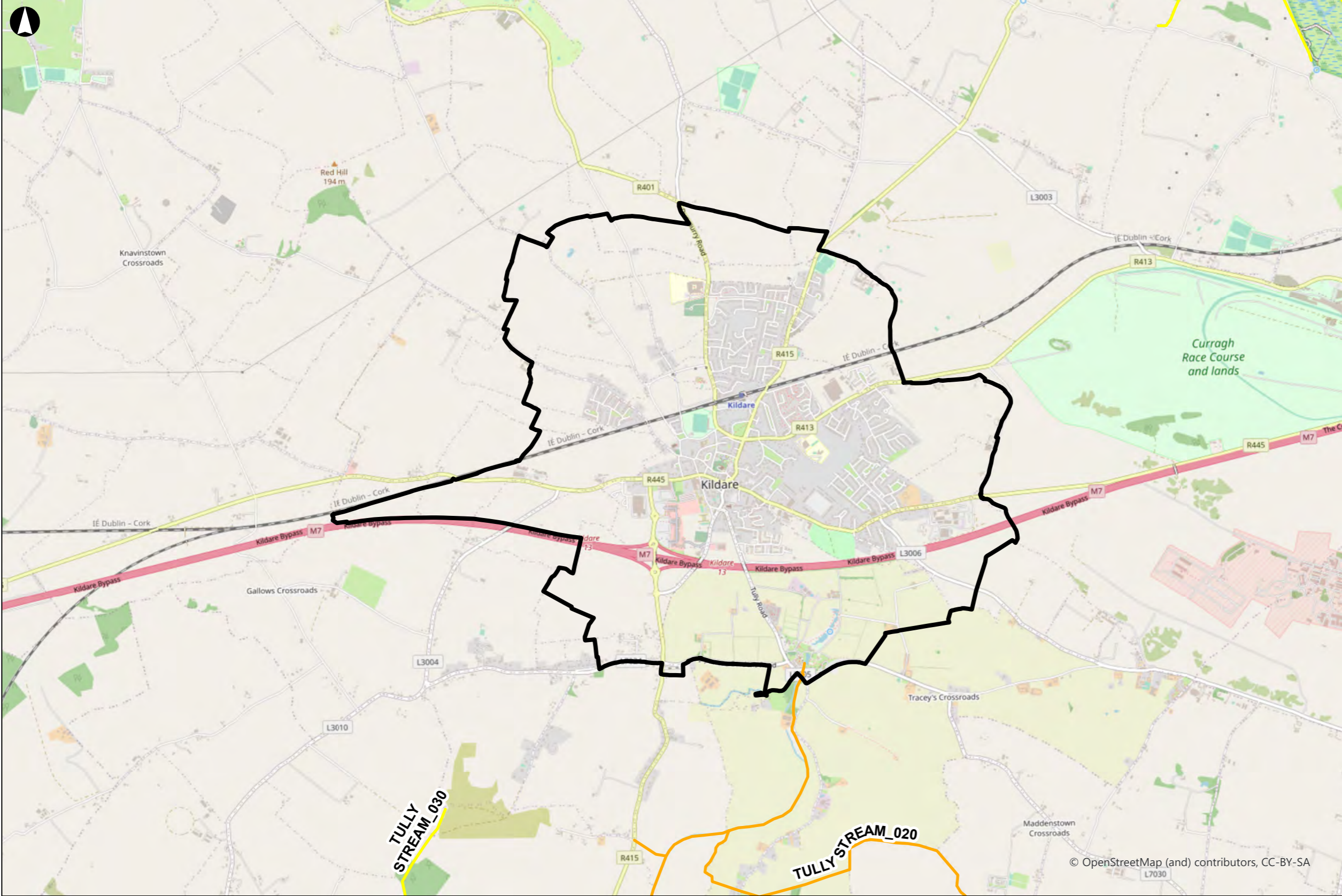
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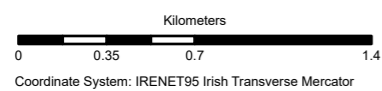


**Legend**  
**Kildare LAP 2023-2029 Boundary**  
 Kildare LAP 2023-2029 Boundary

**WFD River Waterbody Status (2013 - 2018)**  
 Moderate  
 Poor

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Project Title  
**Kildare Town Local Area Plan  
 2023-2029**

Drawing Title  
**WFD River Quality Status**

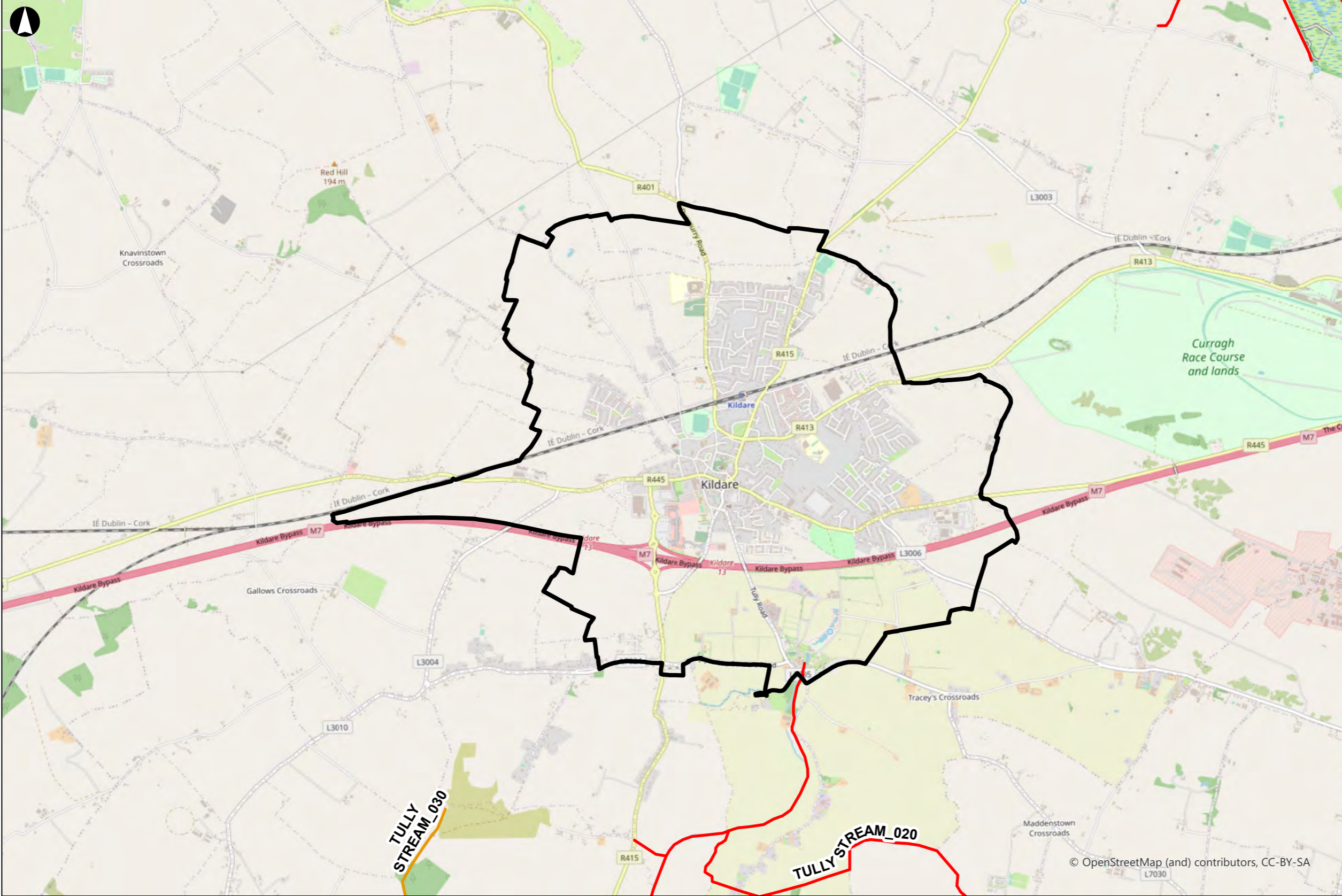
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Figure Number  
**Fig A7**

Arup Job No  
**278388-00**

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**Legend**

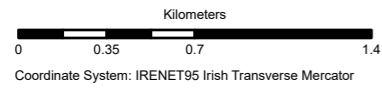
**Kildare LAP 2023-2029 Boundary**  
 Kildare LAP 2023-2029 Boundary

**WFD River Waterbodies (Risk)**

- At risk
- Review

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Project Title

**Kildare Town Local Area Plan  
 2023-2029**

Drawing Title

**WFD River Risk Status**

Scale at A3

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Date

**23/09/2022**

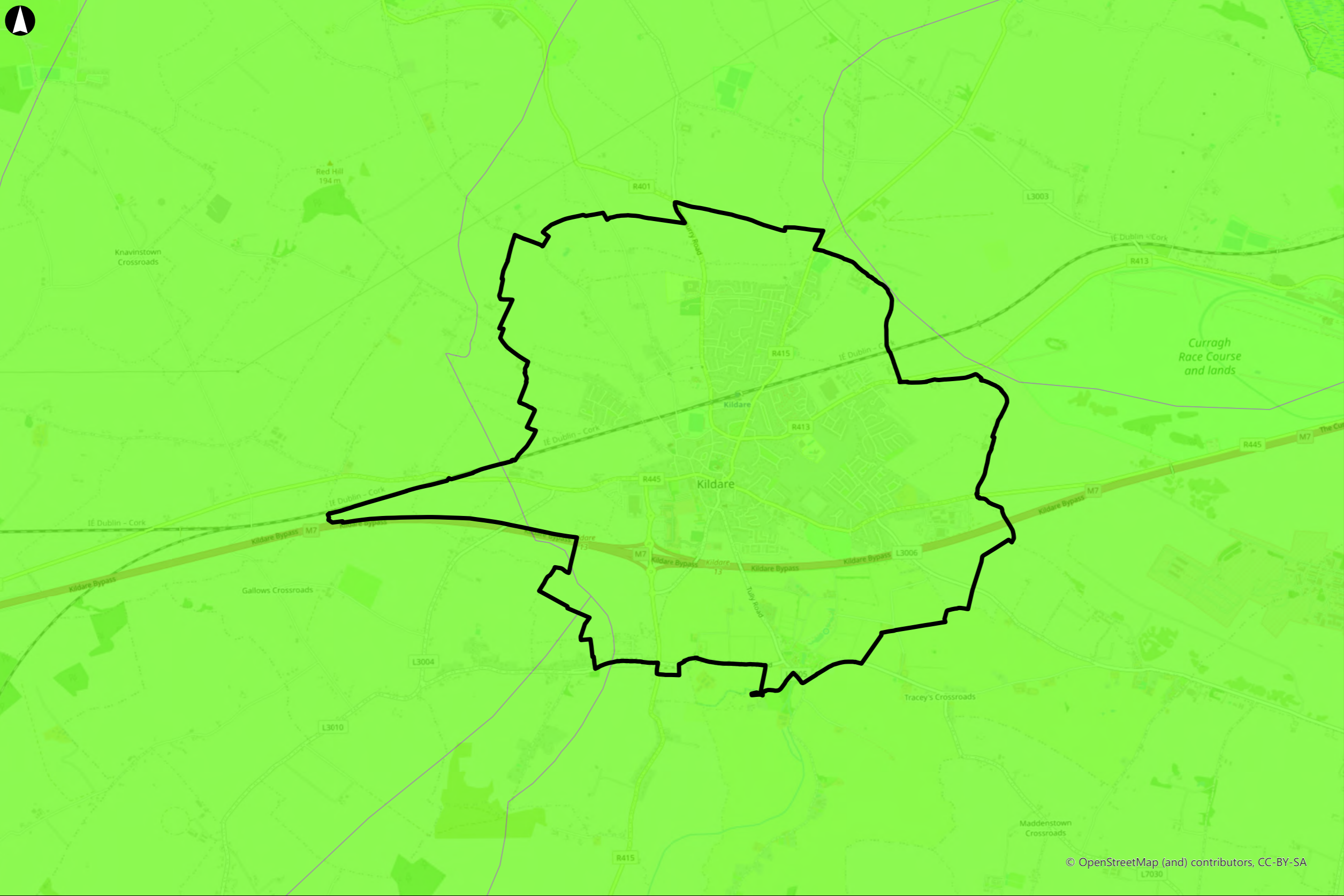
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Arup Job No

**278388-00**

Rev

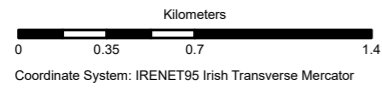


**Legend**

**Kildare LAP 2023-2029 Boundary**  
 Kildare LAP 2023-2029 Boundary

**WFD Groundwater Bodies Status (2013 - 2018)**  
 Good

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Project Title  
**Kildare Town Local Area Plan  
 2023-2029**

Drawing Title  
**WFD Groundwater Body Quality  
 Status**

Scale at A3  
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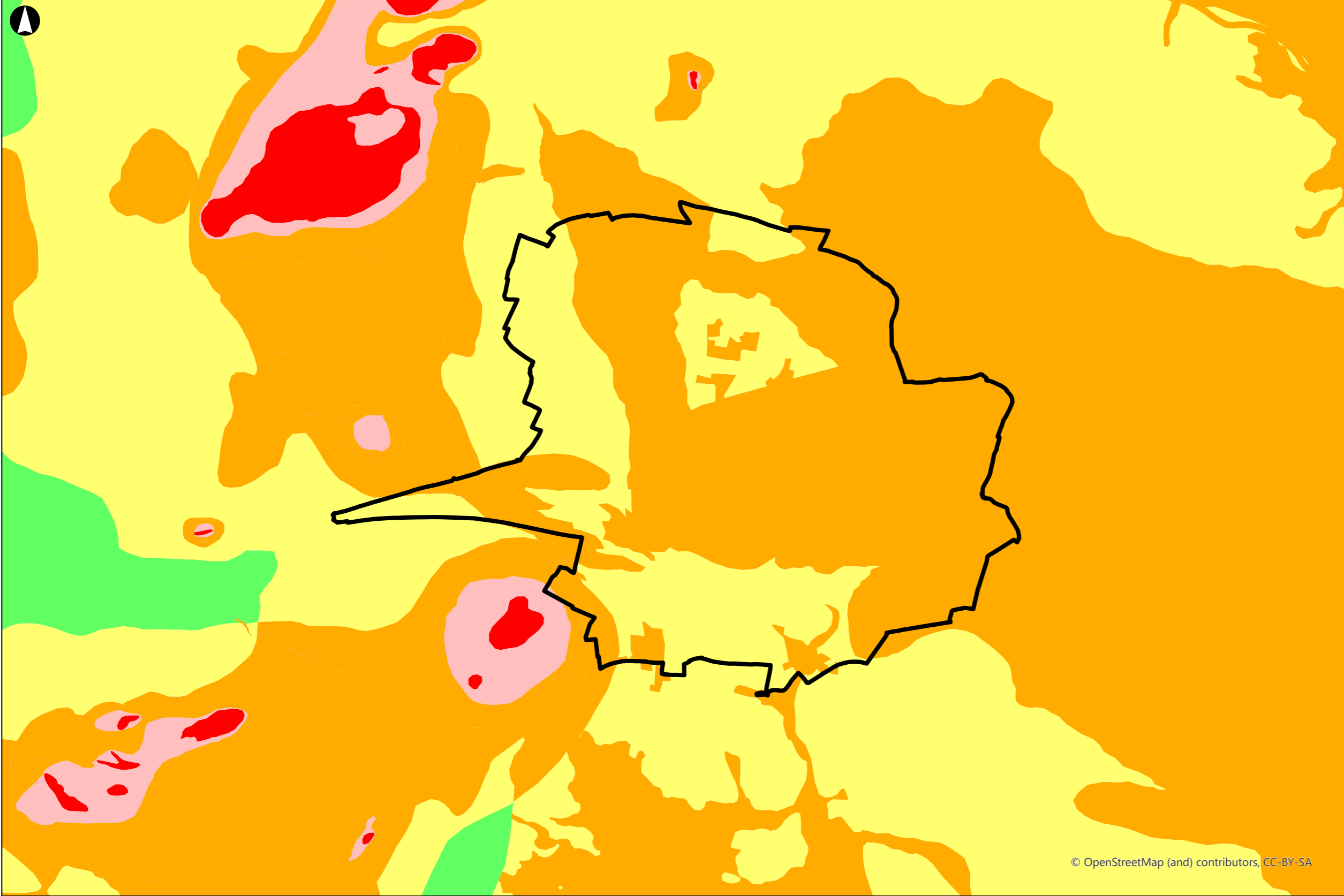
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**Fig A9**

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**278388-00**

Rev





**Legend**

**Kildare LAP 2023-2029 Boundary**

Kildare LAP 2023-2029 Boundary

**GSI Groundwater Vulnerability**

Rock at or near Surface or Karst

Extreme

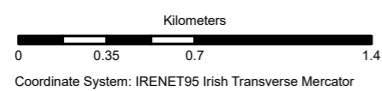
High

Moderate

Low

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Project Title

**Kildare Town Local Area Plan  
2023-2029**

---

Drawing Title

**GSI Groundwater Vulnerability**

Scale at A3

**1:30,000**

Date

**23/09/2022**

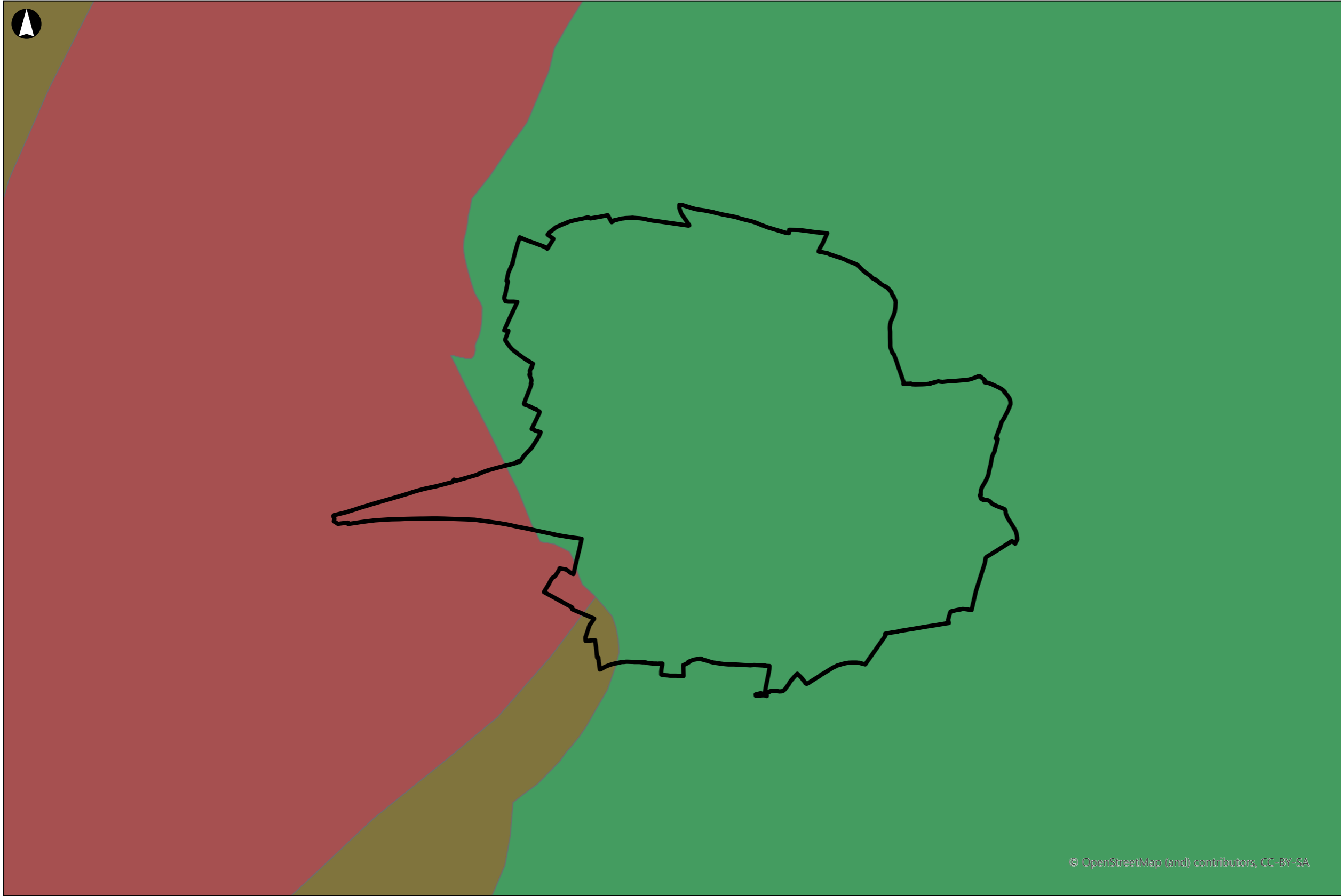
Figure Number

**Fig A10**

Arup Job No

**278388-00**

Rev
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**Legend**

**Kildare LAP 2023-2029 Boundary**

Kildare LAP 2023-2029 Boundary

**Protected Drinking Water (Groundwater)**

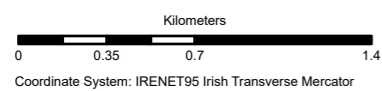
Bagenalstown Upper

Kildare

Pollardstown Fen

The Curragh

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Project Title

**Kildare Town Local Area Plan  
2023-2029**

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Drawing Title

**Protected Drinking Water  
(Groundwater)**

Scale at A3

**1:30,000**

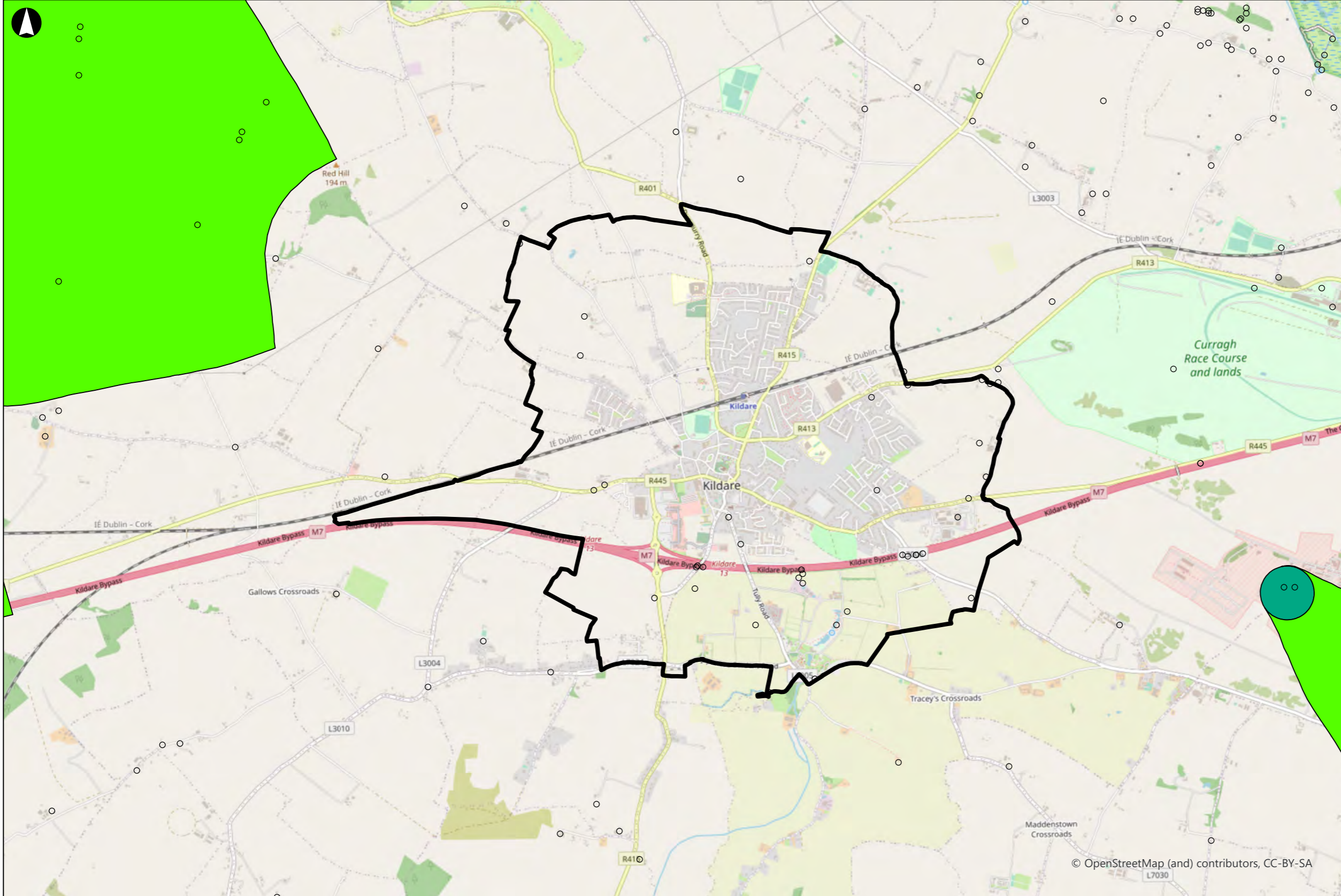
Date

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Figure Number

**Fig A11**

Arup Job No	Rev
<b>278388-00</b>	



**Legend**

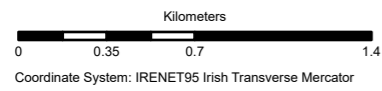
**Kildare LAP 2023-2029 Boundary**  
 Kildare LAP 2023-2029 Boundary

**Groundwater Source Protection Areas**  
 SI-Inner Protection Area  
 SO-Outer Protection Area

**GSI Groundwater Wells and Springs**  
 GSI Groundwater Wells and Springs

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Project Title

**Kildare Town Local Area Plan  
 2023-2029**

Drawing Title

**GSI Groundwater Features and  
 Public Supply Source Protection  
 Zones**

Scale at A3

**1:30,000**

Date

**23/09/2022**

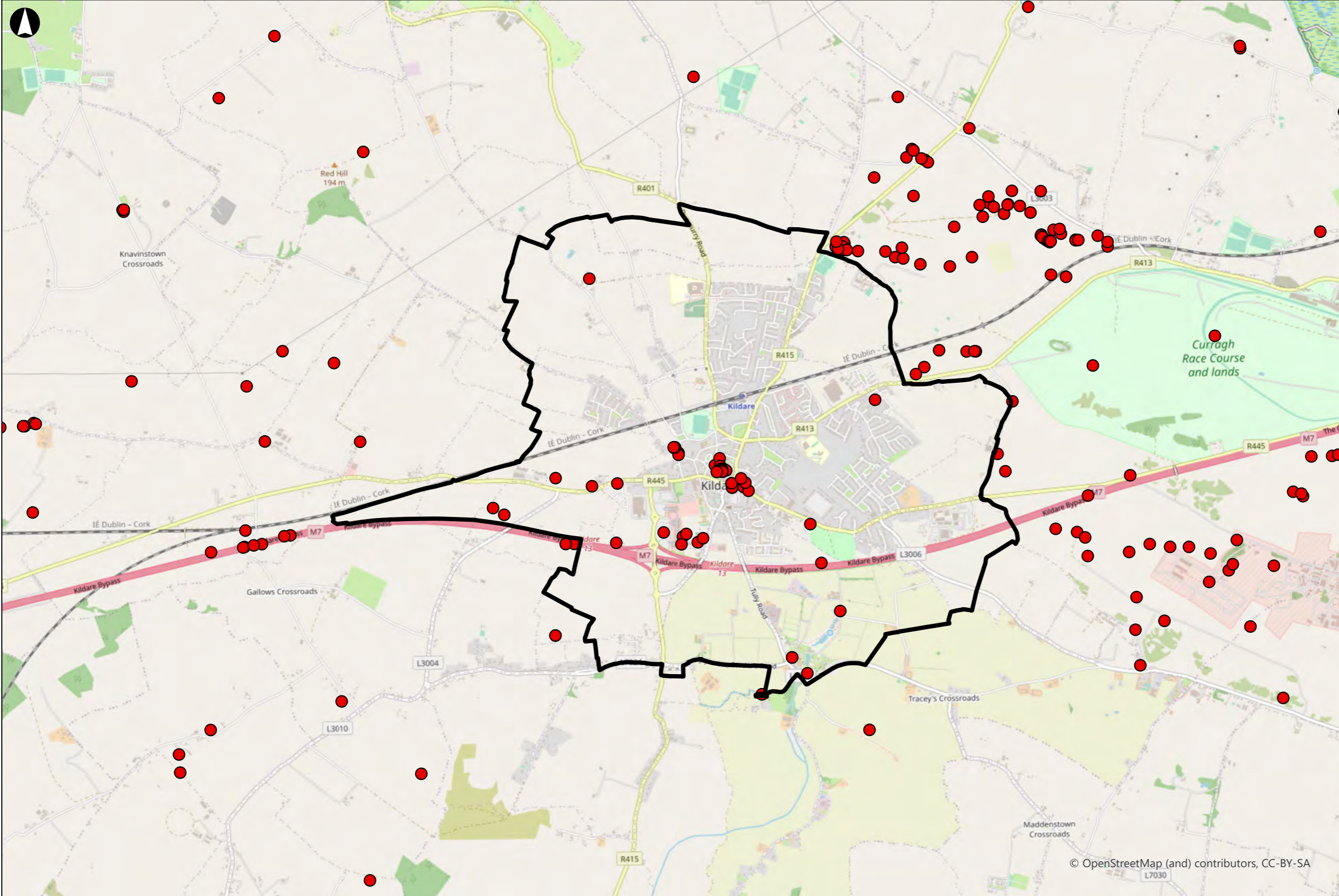
Figure Number

**Fig A12**

Arup Job No

**278388-00**

Rev

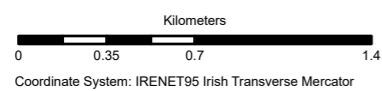


**Legend**

**Kildare LAP 2023-2029 Boundary**  
 Kildare LAP 2023-2029 Boundary

**National Monuments**  
 National Monuments

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Project Title  
**Kildare Town Local Area Plan  
 2023-2029**

Drawing Title  
**National Monuments**

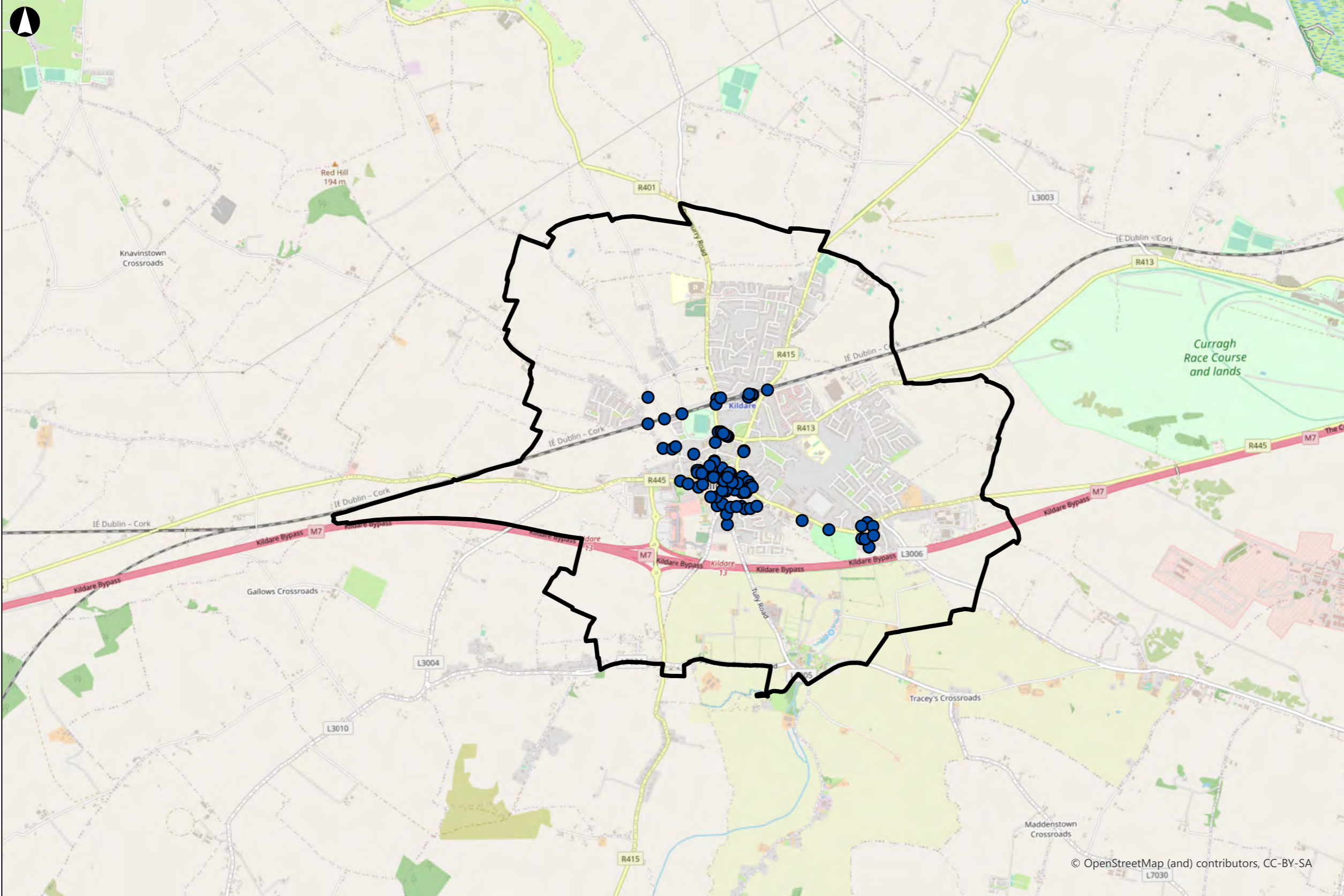
Scale at A3  
**1:30,000**

Date  
**23/09/2022**

Figure Number  
**Fig A13**

Arup Job No  
**278388-00**

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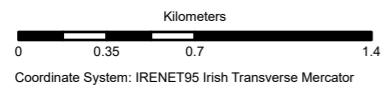
**Legend**

**Kildare LAP 2023-2029 Boundary**  
 Kildare LAP 2023-2029 Boundary

**National Inventory of Architectural Heritage**  
 National Inventory of Architectural Heritage

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Project Title

**Kildare Town Local Area Plan  
 2023-2029**

Drawing Title

**Protected Structures**

Scale at A3

**1:30,000**

Date

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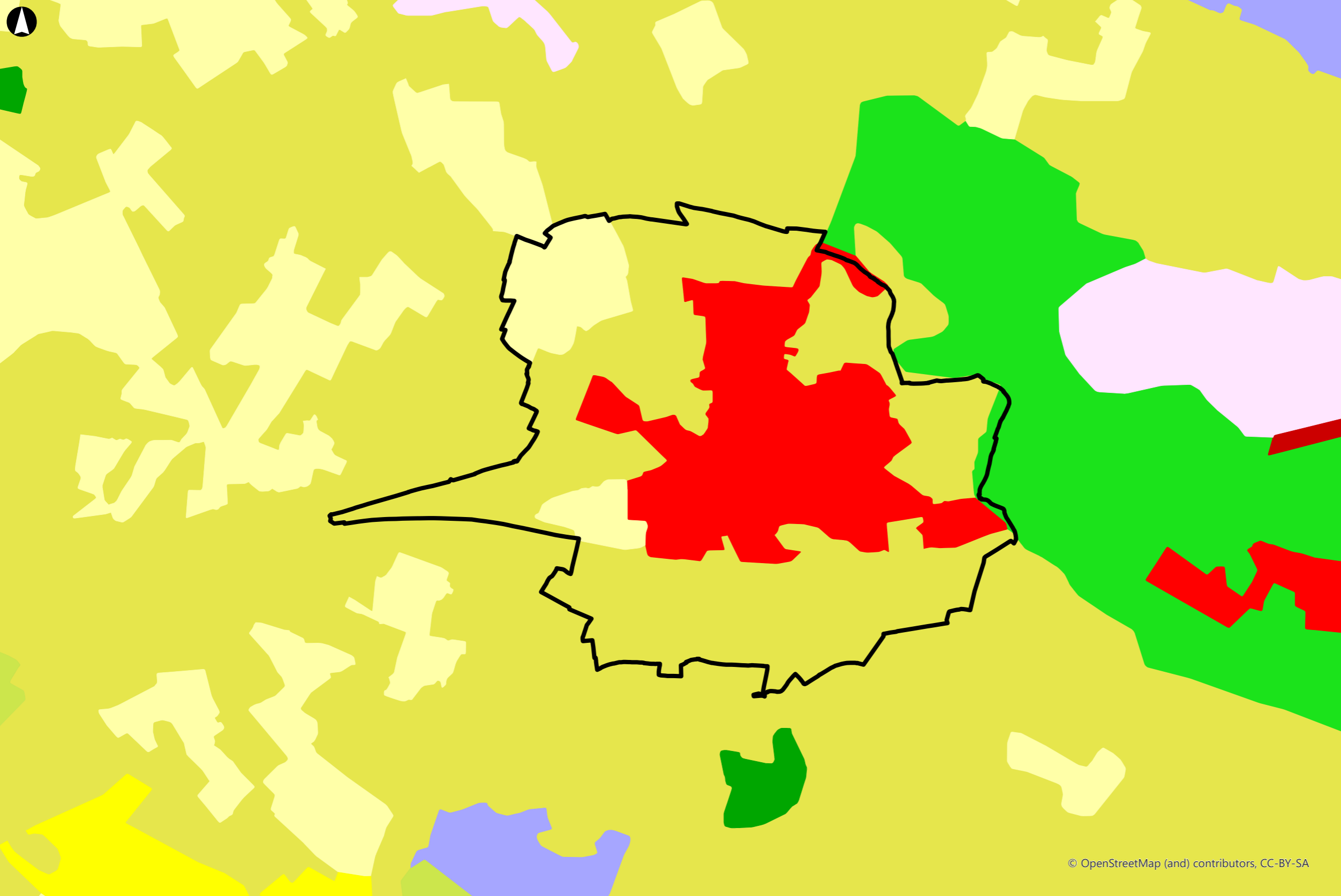
Figure Number

**Fig A14**

Arup Job No

**278388-00**

Rev



**Legend**

**Kildare LAP 2023-2029 Boundary**

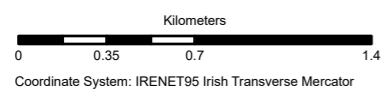
Kildare LAP 2023-2029 Boundary

**Corine Landcover 2018**

- 112 Discontinuous urban fabric
- 122 Road and rail networks
- 142 Sport and leisure facilities
- 211 Non-irrigated land
- 231 Pastures
- 242 Complex cultivation patterns
- 312 Coniferous forest
- 313 Mixed forest
- 321 Natural grassland
- 411 Inland marshes

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Project Title

**Kildare Town Local Area Plan  
2023-2029**

---

Drawing Title

**CORINE Landcover**

Scale at A3

**1:30,000**

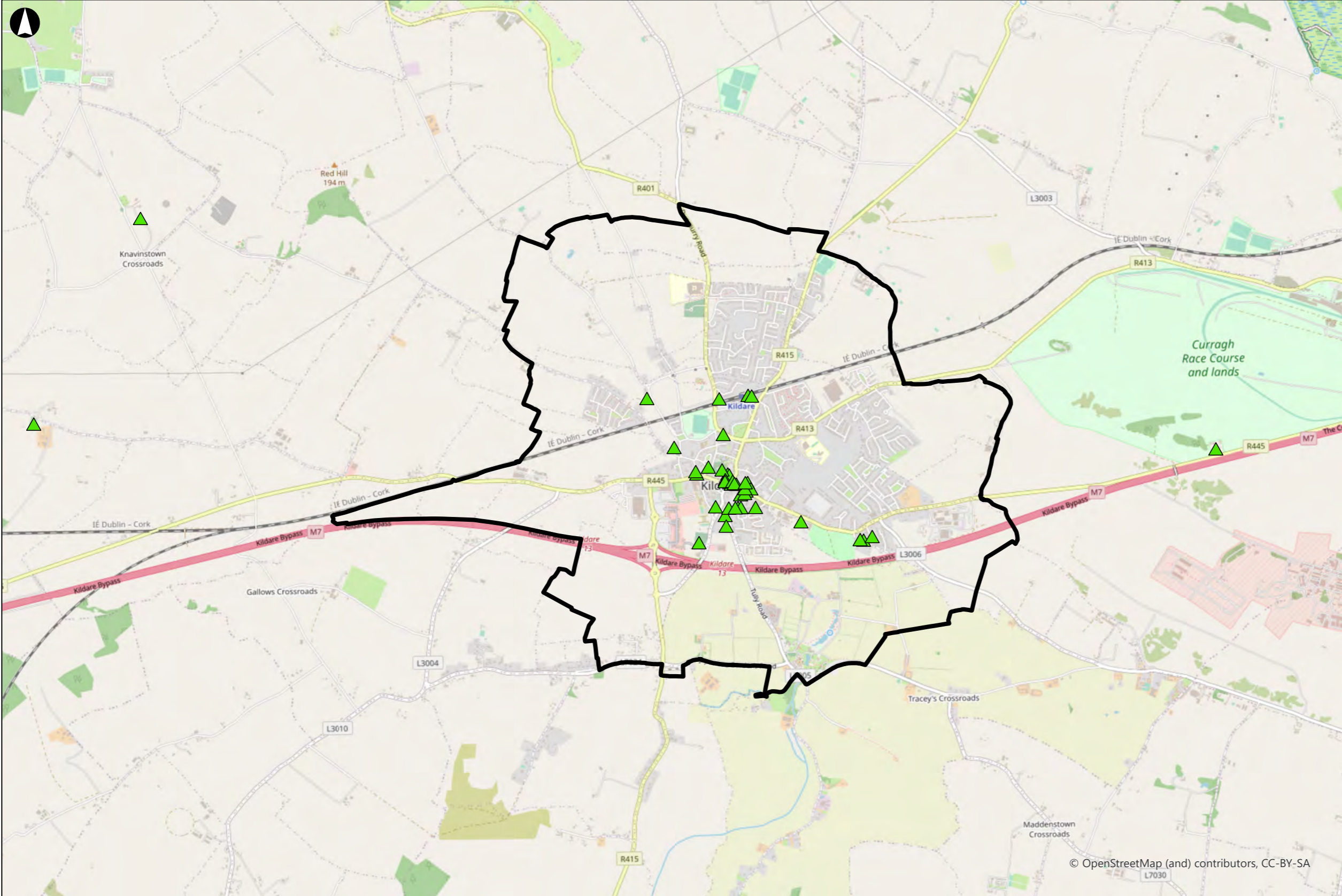
Date

**23/09/2022**

Figure Number

**Fig A15**

Arup Job No	Rev
<b>278388-00</b>	

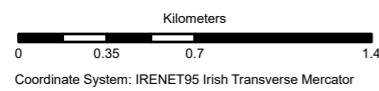


**Legend**

**Kildare LAP 2023-2029 Boundary**  
 Kildare LAP 2023-2029 Boundary

**Record of Protected Structures**  
 Record of Protected Structures

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Project Title

**Kildare Town Local Area Plan  
 2023-2029**

Drawing Title

**Protected Views and Prospects**

Scale at A3

**1:30,000**

Date

**23/09/2022**

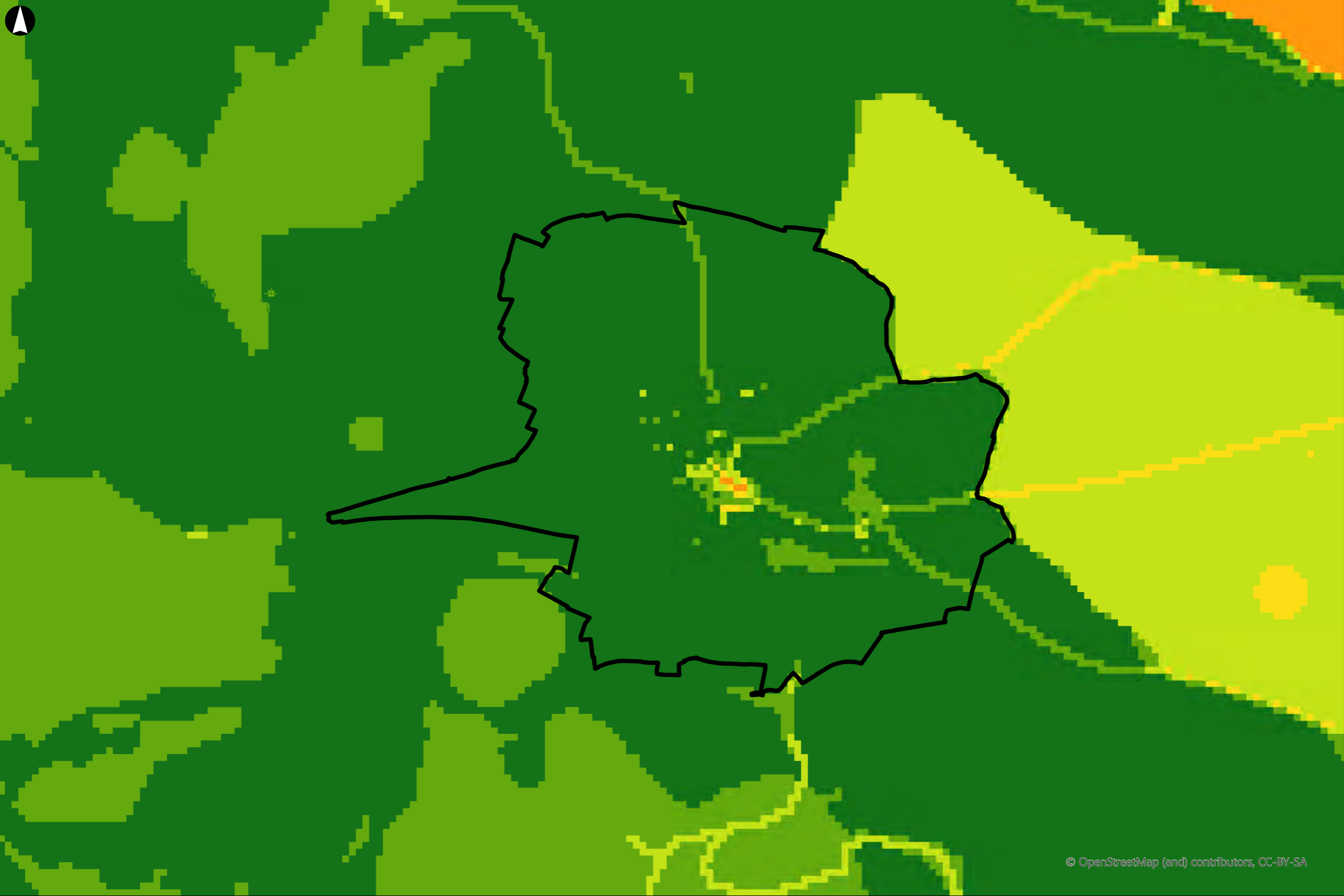
Figure Number

**Fig A16**

Arup Job No

**278388-00**

Rev



**Legend**

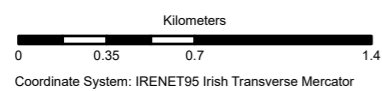
**Kildare LAP 2023-2029 Boundary**  
 Kildare LAP 2023-2029 Boundary

**Environmental Sensitivity Rating**

- 0 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50

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**Kildare Town Local Area Plan  
 2023-2029**

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Drawing Title  
**Environmental Sensitivity Map**

Scale at A3  
**1:30,000**

Date  
**23/09/2022**

Figure Number  
**Fig A17**

Arup Job No  
**278388-00**

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