

DRAFT LEIXLIP LOCAL AREA PLAN 2017-2023

Strategic Environmental Assessment Environmental Report



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Kildare County Council

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GLOSSARY

<i>Appropriate Assessment</i>	An assessment of the effects of a plan or project on the Natura 2000 network. The Natura 2000 network comprises Special Protection Areas under the Birds Directive, Special Areas of Conservation under the Habitats Directive and Ramsar sites designated under the Ramsar Convention (collectively referred to as European sites).
<i>Baseline environment:</i>	A description of the present state of the environment of the P/P area.
<i>Birds Directive:</i>	Council Directive of 2nd April 1979 on the conservation of wild birds (79/409/EEC).
<i>Cumulative effects:</i>	Effects on the environment that result from incremental changes caused by the strategic action together with other past, present, and reasonably foreseeable future actions. These effects can result from individually minor but collectively significant actions taking place over time or space.
<i>Data:</i>	Includes environmental data, proxy data, and any other relevant statistical data.
<i>Designated authority (Designated environmental authority):</i>	An organisation that must be consulted in accordance with the SEA Regulations. For Ireland these are the Environmental Protection Agency (EPA), the Department of the Environment, Community and Local Government (DoECLG) and the Department of Agriculture, Food & the Marine (DoAFM).
<i>Environmental Assessment:</i>	The preparation of an environmental report, the carrying out of consultations, the taking into account of the environmental report and the results of the consultations in decision-making and the provision of information on the decision (in accordance with Articles 4 to 9 of the SEA Directive).
<i>Environmental Characteristics:</i>	Environmental resources, issues and trends in the area affected by the P/P.
<i>Environmental indicator:</i>	An environmental indicator is a measure of an environmental variable over time, used to measure achievement of environmental objectives and targets.
<i>Environmental objective:</i>	Environmental objectives are broad, overarching principles which should specify a desired direction of environmental change.
<i>Environmental receptors:</i>	Include biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage (including architectural and archaeological) and landscape as listed in the SEA Directive. This list is not exhaustive, and can include other receptors which may arise for a particular P/P.
<i>Environmental Report (ER):</i>	A document required by the SEA Directive as part of an environmental assessment which identifies, describes and evaluates the likely significant

	effects on the environment of implementing a plan or programme.
<i>Environmental targets:</i>	A target usually underpins an objective often having a time deadline that should be met and should be accompanied by limits or thresholds.
<i>Evolution of the baseline:</i>	A description of the future state of the baseline in the absence of a plan or programme assuming 'business as usual' or 'do nothing' scenarios, depending on which is more reasonable for the P/P being proposed.
<i>Habitats Directive:</i>	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.
<i>Hierarchy of Plans:</i>	Both higher and lower level P/P relevant to the P/P being assessed.
<i>Indirect effect:</i>	Any aspect of a P/P that may have an impact (positive or negative) on the environment, but that is not a direct result of the proposed P/P. May also be referred to as a secondary effect
<i>Interrelationships:</i>	Associations or linkages, related to environmental impact of the proposed P/P usually on environmental receptors.
<i>Issues Paper:</i>	Paper produced as part of the consultation process, usually for Land Use Plans, to facilitate consultation with stakeholders on key issues.
<i>Key environmental issues:</i>	Those significant environmental issues, which are of particular relevance and significance within a P/P area and/or the zone of influence of that P/P. These issues should be identified during SEA Scoping process.
<i>Key environmental receptors:</i>	Aspects of the environment likely to be significantly impacted by the proposed P/P.
<i>Material Assets:</i>	Critical infrastructure essential for the functioning of society such as: electricity generation and distribution, water supply, wastewater treatment transportation etc.
<i>Member States:</i>	Those countries that belong to the European Union.
<i>Mitigation measures:</i>	Measures to avoid, minimise/reduce, or as fully as possible, offset/compensate for any significant adverse effects on the environment, as a result of implementing a P/P.
<i>Monitoring:</i>	A continuing assessment of environmental conditions at, and surrounding, the plan or programme. This determines if effects occur as predicted or if operations remain within acceptable limits, and if mitigation measures are as effective as predicted. The primary purpose of monitoring is to identify significant environmental effects which arise during the implementation stage against those predicted during the plan preparation stage.

<i>Monitoring Programme:</i>	A detailed description of the monitoring arrangements to be put in place to carry out the monitoring of the impact of the proposed P/P on the environment including; frequency of monitoring, who has responsibility for monitoring, and responses if monitoring identifies significant negative impacts.
<i>Non-technical summary:</i>	A summary of the findings of the ER, summarized under the headings listed in Annex 1 of the SEA Directive that can be readily understood by decision-makers and by the general public. It should accurately reflect findings of ER.
<i>Plan or Programme:</i>	<p>Including those co-financed by the European Community, as well as any modifications to them:</p> <ul style="list-style-type: none"> - which are subject to preparation and/or adoption by an authority at national, regional or local level or which are prepared by an authority for adoption, through a legislative procedure by Parliament or Government, and - which are required by legislative, regulatory or administrative provisions. In accordance with the SEA Directive, P/P that require SEA are those that fulfil the conditions listed in Article 2(a) and Article 3 of the SEA Directive.
<i>Post-mitigation residual impacts:</i>	Environmental effects that remain after mitigation measures have been employed.
<i>Proxy data:</i>	Is a measure of activity resulting from a P/P which provides information on environmental impact without the need for a direct measure of an environmental receptor for example, an increase in the number of vehicles (activity resulting from a P/P) can provide information on the impact on air quality and greenhouse gases without having to measure the concentration of these parameters in the receiving environmental receptor.
<i>Public:</i>	One or more natural or legal persons and, in accordance with national legislation or practice, their associations, organisations or groups.
<i>Reasonable alternatives:</i>	Alternatives should take into account the objectives and geographical scope of the P/P. There can be different ways of fulfilling the P/P objectives, or of dealing with environmental problems. The alternatives should be realistic, capable of implementation and should fall within the legal and geographical competence of the authority concerned.
<i>Scoping:</i>	The process of deciding the content and level of detail of an SEA, including the key environmental issues, likely significant environmental effects and alternatives which need to be considered, the assessment methods to be employed, and the structure and contents of the Environmental Report.
<i>Screening:</i>	The determination of whether implementation of a P/P would be likely to have significant environmental effects on the environment.

	The process of deciding whether a P/P requires SEA.
<i>SEA Directive:</i>	Directive 2001/42/EC 'on the assessment of the effects of certain plans and programmes on the environment'.
<i>SEA Statement:</i>	A statement summarising: <ul style="list-style-type: none">- how environmental considerations have been integrated into the P/P- how the ER, the opinions of the public and designated authorities, and the results of transboundary consultations have been taken into account- the reasons for choosing the P/P as adopted in the light of other reasonable alternatives.
<i>Secondary effect:</i>	Effects that are not a direct result of the P/P, same as indirect effect.
<i>Short-term effects:</i>	These are typical of those effects that may occur during construction stage of a development, for example, the increased traffic going to and from a site during construction, or, the noise associated with construction activities.
<i>Significant effects:</i>	Effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors.
<i>Statutory authority:</i>	The authority by which or on whose behalf the plan or programme is prepared.
<i>Statutory Instrument (S.I.);</i>	Any order, regulation, rule, scheme or bye-law made in exercise of a power conferred by statute.
<i>Synergistic effect:</i>	Effects that, when totaled, result in a greater or lesser effect than the sum of the individual effects.

1.0 Non-Technical Summary

1.1 Introduction

Kildare County Council has prepared a Local Area Plan (LAP) for Leixlip 2017-2023. This Local Area Plan (hereafter referred to as Draft LAP) is a land use plan and overall strategy for the development of Leixlip over the period of 2017 to 2023. The core objective of the Environmental Report is to gather a clear understanding of the likely environmental consequences, both positive and negative and to indicate where necessary, how improvements can be incorporated to improve its environmental performance.

This section of the Environmental Report is a Non-Technical Summary. The purpose of the Non-Technical Summary is to ensure that the key findings of the Environmental Report are readily understood by both decision makers and the general public. To this end, technical jargon has been avoided where possible.

The preparation of Draft Leixlip LAP runs in parallel with the Strategic Environmental Assessment (SEA), a Stage 2 Appropriate Assessment (AA) and Strategic Flood Risk Assessment which have influenced the drafting of the Local Area Plan.


In this regard, environmental considerations have been considered throughout the Draft LAP process and have been incorporated into the Draft LAP ensuring a continuation of a qualitative environment.


The Environmental Report is the primary element in the SEA process and shall accompany the Draft LAP public display.

1.2 Steps in the SEA Process

Table 1.1 below highlights the key stages in the SEA process and the progress made to date:

Table 1.1: Key Stages in SEA process

Stage	Description	Status
Scoping	<p>The scoping of the proposed Draft LAP was carried out in accordance with Article 5(4) of the SEA Directive (2001/42/EC).</p> <p>The principal purpose of the scoping stage is to decide upon the range of issues to be included in the Environmental Report and level of detail appropriate to each subject. An overview of the relevant environmental issues requiring further analysis are given consideration in the Environmental Report and ultimately in the amendment itself. By highlighting any significant issues at an early stage, it ensures that the matters are firmly to the forefront when considering the policies and objectives of the amendment and reduces the Environmental potential for relevant issues to be overlooked.</p>	<p>Completed</p> 
Consultation with Statutory	<p>A Submission have been received from the following bodies:</p> <ul style="list-style-type: none"> • The Environmental Protection Agency 	Completed

Stage	Description	Status
Bodies	<ul style="list-style-type: none"> • Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs • Inland Fisheries Ireland 	
Preparation of proposed Draft Environmental Report	<ul style="list-style-type: none"> • A multi-disciplinary team has been established to create policy consistent documents and to examine the effects on the environment of implementing the objectives and policies. • Policies and objectives created in the proposed Draft LAP have been assessed in the Environmental Report and proposed measures for the area examined. • Feedback has been received throughout the Draft LAP preparation process & Environmental Report preparation. • Mitigation measures have been discussed and chosen. • Monitoring incorporated into existing methods. 	This Stage
Consultation	Consultation on the Draft LAP and accompanying Environmental Report, Stage 2 Appropriate Assessment and Strategic Flood Risk Assessment.	Future Stage
Evaluation of submissions	Evaluation of submissions and observations made on the proposed Draft LAP, Environmental Report, Strategic Flood Risk Assessment and Stage 2 Appropriate Assessment.	Future Stage
Finalisation of the Draft Environmental Report & SEA Statement	Finalisation of proposed Draft Leixlip LAP and SEA Environmental Report. SEA Statement prepared identifying how environmental considerations and consultations have been integrated into the final plan.	Future Stage
Monitoring	Monitoring of significant environmental effects over the lifetime of the proposed Draft Leixlip LAP 2017-2023	Future Stage

1.3 Content of Environmental Report

The Environmental Report considers all of the following in accordance with the requirements of the SEA Directive:

1. Biodiversity
2. Population
3. Human Health
4. Soil and Geology
5. Water
6. Air Quality and Climate Change
7. Material Assets
8. Architectural, Archaeological and Cultural Heritage
9. Landscape
10. Interaction of the foregoing

Table 1.2 below summarises the content of the Environmental Report. In the first instance, the Environmental Report details the current condition of the environment of the study area of the proposed Draft LAP under each of the sub-headings set out above. The Environmental Report also summarises the significant environmental pressures that may affect each of the environmental topics and the current (baseline) condition of the environment.

Table 1.2: Content of Environmental Report

Section	Description
1.Non-Technical Summary	A brief summary of the Environmental Report, its main points and conclusions.
2.Introduction & Background	A description of the Draft LAP and a summary of its key policies and objectives. This section outlines the purpose of the SEA process, SEA requirements, its benefits and how the plan and Environmental Report have progressed.
3. Methodology	The steps taken in preparation of the SEA, including the methods used and technical difficulties encountered.
4. Review of Relevant Policies, Plans and Programmes.	The relationship of the Draft LAP to other relevant plans and programmes is highlighted.
5. Baseline Environment	A description of the current environment of the area of the Draft LAP is given, highlighting any existing environmental problems. This exercise results in a comprehensive baseline against which the likely effects of implementing the Draft Plan can be examined.
6.Strategic Environmental Objectives	A number of environmental protection objectives which have been established at international, EU or national Level and are relevant to the Draft Plan are listed. Following this, a description of how the objectives and any environmental considerations have been taken into account in the preparation of the Draft LAP is given.
7. Description of the Alternatives	An assessment of proposed alternatives to the Draft Leixlip LAP are considered at this stage.
8.Strategic Environmental Assessment	An examination of the proposed Draft Leixlip LAP and policies in terms of their potential effects on the various environmental parameters.
9. Mitigation Measures	Should potentially significant effects be discovered, measures to avoid, reduce or offset these effects are proposed and integrated into the Draft LAP.
10. Monitoring	Proposals for monitoring the significant effects of the Draft LAP on the environment are put forward. A number of indicators of change and targets are identified and existing monitoring arrangements are utilised.

11. Conclusion	A conclusion with regard to the overall potential impact on the environment resulting from the implementation of the Draft Leixlip LAP.
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1.4 Policy Context

The preparation of the proposed Draft Leixlip LAP is considered within the context of a hierarchy of policies, plans and strategies of international, national, regional and local level as detailed in Section 3 of the Environmental Report. Other relevant plans, policies and programmes were considered in this report and are referenced throughout.

1.5 Screening for Appropriate Assessment

The need for 'Appropriate Assessment' (AA) arises out of Article 6(3) and 6(4) of the Habitats Directive (92/43/EEC) (on the conservation of natural habitats and of wild fauna and flora), which requires that proposed plans and programmes (including amendments or variations) undergo screening for likely or potential effects on European Sites (also Natura 2000 sites) arising from their implementation.

The Draft Leixlip LAP was screened for AA early during its preparation at draft stage. This screening found that likely significant effects of the LAP on the integrity of the Rye Water Valley / Carton Special Area of Conservation, (Site Code 002162) could not be ruled out, and therefore full Appropriate Assessment would be required. The mitigation measures identified in the Stage 2 Appropriate Assessment (i.e. Natura Impact Statement) have been incorporated into the current Draft Plan.

1.6 Strategic Environmental Objectives, Targets and Indicators

Strategic Environmental Objectives (SEOs) assist in the prediction, description and monitoring of impacts on the environment as a result of the Draft LAP. The Strategic Environmental Objectives are environmental protection objectives which have been established at international, EU or national Level, and are relevant to the Draft LAP as set out in Table 1.3 below. Strategic Environmental Objectives are primarily derived from the Environmental Report of the Draft Leixlip LAP and have been amended and supplemented with additional draft Environmental Protection Objectives relevant to the proposed Draft LAP taking into account feedback from Statutory Authorities on the Scoping Report.

Table 1.3: Strategic Environmental Objectives (SEOs)

Draft Objectives	Draft SEA Indicator	Draft Targets
Biodiversity including Flora and Fauna		
<p>B1: Conserve and protect the diversity of habitats and species by limiting adverse impacts on habitats and species of conservation concern.</p>	<ul style="list-style-type: none"> • Number and extent of Protected Sites • Areas actively managed for conservation • Population and range of Protected Species • Achievement of the Objectives of Biodiversity Plans 	<ul style="list-style-type: none"> • Consider siting of new development on non-sensitive sites. • Improve/conservate and protect all designated sites and species within and adjacent to the Plan area • Deliver the requirement of the Habitats Directive (Article 4, Paragraph 4) for the maintenance or restoration of annexed habitats and species within SACs at a “favourable conservation status. • Promote the maintenance and, as appropriate, achievement of favourable conservation status of habitats and species, in association with the NPWS and other stakeholders. • Protect SPAs, Annex I bird species, and regularly occurring migratory bird species and their habitats, and avoid pollution or deterioration of important bird habitats outside SPAs. • Improve the ecological coherence of Natura 2000 by encouraging the management of, maintaining, and where appropriate developing, features of the landscape which are of major importance for wild fauna and flora. Such features are those which, by virtue of their linear and continuous structure (such as rivers with their banks or the traditional systems for marking field boundaries) or their function as stepping stones (such as ponds or small woods), are essential for the migration, dispersal and

Draft Objectives	Draft SEA Indicator	Draft Targets
		<p>genetic exchange of wild species</p> <ul style="list-style-type: none"> • Protect NHAs, National Parks, Nature Reserves, Wildfowl Sanctuaries, Refuges for Fauna or Flora and sites proposed for designation. • Improve/maintain protection for important wildlife sites, particularly urban wildlife corridors and linear and stepping stone features for migration, dispersal and exchange of wildlife • Improve access for the appreciation and promotion of wildlife • Maintain/Conserve rare and protected plants such as those found along the Liffey Valley and St. Catherines Woods.
Population and Human Health		
<p>P1: Improve people's quality of life based on high-quality residential, working and recreational environments and on sustainable travel patterns.</p>	<ul style="list-style-type: none"> • Census population data • Rates of Unemployment per area • % increase in housing (number and type) 	<ul style="list-style-type: none"> • Minimise population exposure to high levels of noise, vibration and air pollution • Increase modal shift to public transport • Co-ordinate land use and transportation policies • Improve access to recreation opportunities
Soils & Geology		
<p>S1: Protect quality and quantity of existing soil and geology.</p>	<ul style="list-style-type: none"> • Rates of re-use / recycling of construction waste • Rates of cement / concrete production • Rates of brownfield site and contaminated land reuse and development • Rates of greenfield development 	<ul style="list-style-type: none"> • Prevent pollution of soil through adoption of appropriate environmental protection procedures during construction and maintenance works on site. • Ensure polluting substances are appropriately stored and banded. • Ensure appropriate management of existing contaminated soil in

Draft Objectives	Draft SEA Indicator	Draft Targets
		<p>accordance with the requirements of current waste legislation.</p> <ul style="list-style-type: none"> • Re-use of brownfield lands, rather than developing Greenfield lands, where possible. • Minimise the consumption of non-renewable sand, gravel and rock deposits.
Water Resources		
<p>W1: Improve/maintain and protect 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.</p>	<ul style="list-style-type: none"> • Compliance of potable water sources to water quality regulations • Compliance of surface waters with national and international standards • Potable and wastewater treatment capacities versus population • % of wastewater achieving tertiary treatment • Achievement of the Objectives of the River Basin Management Plans • Amount of new developments within flood plains • Annual costs of damage related to flood events 	<ul style="list-style-type: none"> • Support the achievement of “good” ecological and chemical status/potential of waterbodies in accordance with the Water Framework Directive. • Minimise flood risk through appropriate management of flood vulnerable zones. • Promote sustainable drainage practices to improve water quality and flow.
Air, Noise & Climate		
<p>A1: Maintain and promote continuing environmental improvement where possible of emissions to air (including noise emissions).</p>	<ul style="list-style-type: none"> • Traffic, Transport and Vehicular survey data • National and region specific emission data • Compliance with national standards • Reduction in greenhouse gas emissions • Number and extent of emission licensed facilities • Number of energy / renewable energy production facilities • Rates of energy / renewable energy 	<ul style="list-style-type: none"> • Minimise air and noise emissions during construction and operation of new developments. • Promote minimisation of greenhouse gas emissions to the atmosphere • Limiting and adapting to climate change

Draft Objectives	Draft SEA Indicator	Draft Targets
	consumption	
Archaeological, Architectural and Cultural Heritage		
C1: Promote the protection and conservation of the archaeological, architectural and cultural heritage	<ul style="list-style-type: none"> • Updating of inventories to include new sites / features • Achieving the objectives of development plans regarding heritage protection • Range and extent of areas of heritage potential • Range and extent of areas of special planning controls 	<ul style="list-style-type: none"> • Regeneration of derelict and underutilised heritage sites • Improve appearance of areas with particular townscape character • Improve protection for protected archaeological sites and monuments and their settings, protected structures and conservation areas and areas of archaeological potential • Enhance access to sites of heritage interest
Landscape and Visual		
L1: Conserve and enhance valued natural and historic landscapes and features within them	<ul style="list-style-type: none"> • Range and extent of Amenity Landscapes • Rates of development within designated landscapes • Rates of urban expansion • Rates of deforestation • Rates of agricultural land re-development • % change of land use from rural to urban 	<ul style="list-style-type: none"> • Improve protection for landscapes of recognised quality • Maintain clear urban/rural distinctions • Enhance provision of, and access to, green space in urban areas • Ensure development is sensitive to its surroundings
Material Assets		
M1: Make best use of existing infrastructure, promote the sustainable development of new infrastructure and promote the sustainable efficient use of resources	<ul style="list-style-type: none"> • Location / level of Infrastructure • Achievement of development plan objectives; • Rates of deprivation • Rate of waste disposal to landfill statistics • Range and extent of recycling facilities and services • Rates of recycling 	<ul style="list-style-type: none"> • Improve availability and accessibility of commercially provided facilities and public services • Increase local employment opportunities • Improve efficiencies of transport, energy and communication infrastructure • Promotion of sustainable transport infrastructure i.e. increased public transport. • Reduce the generation of waste and adopt a sustainable approach to waste

Draft Objectives	Draft SEA Indicator	Draft Targets
		management.

1.7 Alternative Plan Scenarios

The SEA Directive requires the consideration of SEA Alternatives. This consideration is outlined in Chapter 7 of the Environmental Report.

Particular reference is drawn to the Core Strategy of the Kildare County Development plan which must be complied with. Five alternatives were considered in the drafting of the SEA and the preparation of the proposed Draft LAP:

- Alternative 1: Western Expansion and Consolidation of Existing Urban Area
- Alternative 2: Northern Expansion and Consolidation of Existing Urban Area
- Alternative 3: Southern Expansion and Consolidation of Existing Urban Area
- Alternative 4: Eastern Expansion and Consolidation of Existing Urban Area
- Alternative 5: Combinations of Scenarios 1 - 3

Following consideration and assessment of the five development alternatives put forward, it was concluded that Alternative 5; which provides for a combination of scenarios 1, 2 and 3 comprising, the western expansion, northern expansion, southern expansion and consolidation of the existing urban area was the most appropriate and environmentally protective to the future development of Leixlip. This identifies three key development areas to accommodate the proposed population growth in conjunction with the provision of infrastructure. A key aspect of alternative 5 is that, this approach meets the requirements for the provision of zoned lands and allows for flexibility in the delivery of infrastructural requirements.

This approach would meet a large number of policies and objectives of the Draft LAP as it supports the consolidation of the town centre by zoning lands in closest proximity to the town centre, including infrastructural improvements and encourages the development of vacant and underutilised sites. The exclusion of Alternative 4 allows for the protection of St. Catherine's Park and Leixlip Manor which is an essential amenity for the town and protects its biodiversity and natural heritage.

1.8 Evaluation of Draft Leixlip LAP (Policies and Objectives)

The SEA aims to highlight the potential conflicts, if they are present, between the stated policies and objectives contained in the Draft LAP with the Strategic Environmental Objectives. Furthermore, the assessment examines the potential impact arising from the adoption of the LAP policies and objectives on sensitive environmental receptors.

The process of SEA and Draft LAP formulation is an iterative one and environmental considerations have informed the Draft LAP preparation. SEA is carried out in order to minimise the potential for significant adverse effects arising from adoption of the Draft LAP. Where the environmental assessment identifies significant adverse effects, consideration is given in the first instance to avoid such impacts. Where avoidance is not possible, the Draft LAP will seek to lessen or offset those effects through mitigation measures.

In some instances, there is little or no relationship between the various policies/objectives and

the respective environmental receptor. In some instances there is little or no relationship between the various Plan Policies/Objectives and the respective environmental receptor. Where this occurs, the potential impact is regarded as neutral and no further discussion is deemed necessary.

The assessment of the Draft LAP provides a comparative evaluation of the environmental effect of implementing the stated policies and objectives of the Draft Leixlip LAP and determines whether each measure is likely to have a positive, neutral, uncertain or negative relationship with the Strategic Environmental Objectives (SEO's) outlined in Chapter 6. Using the above SEOs, the policies and objectives of the Draft LAP are evaluated in the context of their impact on these environmental objectives; the results of the assessment are presented in a table format below. The potential effects are categorised into Potential Positive Impacts, Uncertain impacts, Neutral or No relationship, Potential Negative impact

Where the evaluation identifies a potential uncertain or negative impact with the status of an SEO, the relevant SEO code and provision is entered into a Mitigation Table (Table 9.1) to assess what mitigation is available to offset uncertain or potentially negative impacts arising from the provision.

In general terms, the Draft LAP, in its current form will have a positive effect on the environment as a whole.

1.9 Mitigation Measures

While every effort will be taken to ensure that the impact of the proposed Draft LAP on the environment is neutral to positive, certain unavoidable negative impacts may occur as a result of its adoption. The Environmental Report details mitigation measures to reduce or avoid identifiable adverse impacts in Table 9.1 in Section 9 of this report.

Similarly, monitoring of the Draft LAP, in accordance with the Planning and Development Act, 2000 – 2014 will incorporate proposals to monitor various environmental receptors. A schedule of monitoring and reporting is proposed in order to ensure that any unforeseen negative impact is identified at the earliest opportunity and subsequently appropriate mitigation measures are put in place to eliminate or at a minimum limit the level of impact to an acceptable degree. Environmental Indicators, as prescribed in the EPA publication "Ireland's Environment: An Assessment 2012" are provided where relevant and presented as a yardstick against which the success of the Draft LAP can be monitored.

In general terms, all proposals for development will be required to have due regard to the environmental considerations outlined in the proposed Draft Plan. Proposals for development which are deemed contrary to the objectives and policies contained within the plan will not normally be permitted, and if permitted, not without the appropriate site and development specific mitigation measures. In addition, certain individual applications for developments within the county may be subject to individual Environmental Impact Assessment and Appropriate Assessment.

1.10 Local Area Plan Monitoring

Monitoring of the Draft LAP and its implications on the environment is paramount to ensure that the Leixlip study area is not adversely affected by the adoption of the Draft LAP.

It is proposed to build monitoring criteria on a series of indicators which measure changes in the environment, especially changes which are critical in terms of environmental quality, for example water or air pollution levels. A list of environmental indicators is provided in Table 10.1 in Section 10 of this Report. The indicators are based on the Strategic Environmental Objectives presented in Chapter 6 and have been derived from knowledge of the existing environmental issues within the study area and also from legislation, guidelines and higher level plans.

Environmental indicator assessment during monitoring can show positive, neutral impacts or negative impacts on the environment. Where an indicator value highlights a positive, neutral impact on the environment, it is likely that the policies and objectives of the Draft LAP are well defined with regard to the environment. Conversely, where the objectives of the LAP have a negative impact on the environment, it may be necessary to review the policies or objectives of the plan or take some other form of intervention to change the Draft LAP.

Where significant effects such as including positive, negative, cumulative and indirect have the potential to occur as a result of the undertaking of individual projects or multiple individual projects, such instances should be identified and recorded and should feed into the monitoring evaluation.

1.11 Sources

Measurements for indicators generally come from existing monitoring sources. Existing monitoring sources include those maintained by the relevant authorities including the National Transport Authority, the Environmental Protection Agency, the National Parks and Wildlife Service and the Central Statistics Office and the Local Authority itself.

The output of lower-tier environmental assessment and decision making – including a review of project approvals granted and associated documents – will also be utilised as part of the Monitoring Programme.

Where significant effects - including positive, negative, cumulative and indirect - have the potential to occur as a result of the undertaking of individual projects or multiple individual projects, such instances should be identified and recorded and should feed into the monitoring evaluation.

2.0 Introduction & Background

2.1 Introduction to Environmental Report

Kildare County Council has prepared a Local Area Plan (LAP) for Leixlip. This Local Area Plan (hereafter referred to as Draft LAP) is a land use plan and overall strategy for the development of Leixlip over the period of 2017 to 2023. The core objective of this Environmental Report is to gather a clear understanding of the likely environmental consequences, both positive and negative and to indicate where necessary, how improvements can be incorporated to improve its environmental performance.

The SEA for the Draft Leixlip LAP is carried out in order to comply with the requirements of the 'SEA Directive' (2001/42/EC) and the provisions of the Planning and Development (Strategic Environmental Assessment) Regulations 2004.

This Environmental Report should be read in conjunction with the Draft Leixlip LAP, the Strategic Flood Risk Assessment and the Appropriate Assessment (AA) Screening carried out under the provisions of the EU Habitats Directive (1992/43/EEC).

The Environmental Report is the primary element in the SEA process and shall accompany the Draft LAP on public display.

2.2 Strategic Environmental Assessment

Strategic Environmental Assessment (SEA) is the formal, systematic environmental assessment of the likely significant effects of implementing a plan or programme. It is carried out during the preparation period of the plan or programme to ensure that environmental implications arising from its implementation is taken into account in decision-making prior to its finalisation.

2.2.1 SEA Legislative and Guideline Context

The requirement to undertake SEA derives from the 2001 European Community Directive 2001/42/EC (also known as the 'SEA Directive') on the assessment of the effects of certain plans and programmes on the environment. Article 1 of the SEA Directive states:

"The objective of this 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 and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment."

The SEA Directive was subsequently transposed into Irish law through:

- **S.I. No. 435 of 2004** (*European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004*, as amended by **S.I. No. 200 of 2011** (*European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011*), and
- **S.I. No. 436 of 2004** (*Planning and Development (Strategic Environmental Assessment) Regulations 2004*, as amended by **S.I. No. 201 of 2011** (*Planning and*

Development (Strategic Environmental Assessment) (Amendment) Regulations 2011 and **S.I. 262 of 2011** (*Planning and Development (Amendment) Regulations 2011*).

The preparation of the Environmental Report for the proposed Draft LAP has had particular regard to the above legislation and to a range of guidance documents on the implementation and practice of SEA, including:

Environmental Protection Agency

- 2016: GISEA Manual 2015.
- 2015: Development and Assessing Alternatives in Strategic Environmental Assessment (SEA).
- 2015: Integrating Climate Change into Strategic Environmental Assessment in Ireland – A Guidance Note.
- 2015: SEA Scoping Guidance Document.
- 2015: SEA Spatial Information Sources May 2015.
- 2013: SEA Pack.
- 2013: Integrated Biodiversity Impact Assessment – Streamlining AA, SEA and EIA Processes: Practitioner’s Manual.
- 2013: SEA Resource Manual for Local and Regional Planning Authorities – Integration of SEA Legislation and Procedures for Landuse Plans (Draft).
- 2008: SEA Process Checklist – Consultation Draft.
- 2003: Development of Strategic Environmental Assessment (SEA) Methodologies for Plans and Programmes in Ireland.

Department of Environment, Community and Local Government

- 2011: Circular Letter PSSP 6/2011: Further Transposition of EU Directive 2001/42/EC on Strategic Environmental Assessment (SEA).

Department of Environment, Heritage and Local Government

- 2008: Circular Letter SEA 1/08 & NPWS 1/08: Appropriate Assessment of Land Use Plans.
- 2004: Implementation of SEA Directive (2001/42/EC): Guidelines for Regional Authorities and Planning Authorities.

European Commission

- 2003: Implementation of Directive 2001/42 on the assessment of the effects of certain plans and programmes on the environment.

2.3 Draft Leixlip Local Area Plan 2017-2023

The Draft Leixlip LAP is the primary tool available to Kildare County Council when assessing development proposals for Leixlip and aims to ensure that future developments in area take place in a planned, structured and sustainable manner.

Kildare County Council is currently preparing a Draft Leixlip LAP 2017-2023 to replace the existing Leixlip LAP. The LAP is being prepared under the provisions of the Planning and Development Act

2000 (as amended) to develop and improve in a sustainable manner the environmental, social economic and cultural assets of Leixlip.

The strategic vision for Leixlip as set out in the Draft LAP is:

“To fulfil its role as a Large Growth Town II by providing for sustainable growth in a coherent spatial manner; protecting and maximising opportunities presented by the unique natural and built environment of the town; and delivering an exemplar quality of life for its residents.”

The Strategic Vision of the LAP provides the overall strategy for the proper planning and sustainable development of Leixlip Town for the period up to 2023. The following strategic objectives have been identified in order to achieve its strategic vision:

- To accommodate 10.2% of Kildare's allocated housing growth in Leixlip over the period 2017-2023 in accordance with the County Development Plan Core Strategy
- To protect the quality, ambience and vitality of the traditional heart of Leixlip Town Centre so that it offers a pleasant and attractive environment for shopping, business, tourism, recreation and living and to support the enhancement and expansion of established neighbourhood centres.
- To promote, support, and enable sustainable economic development and employment generation in the town consistent with its role as a Primary Economic Growth Town whilst optimising on its strategic location in the Greater Dublin Area.
- To deliver new residential development within Leixlip to support existing community infrastructure, recreation and amenity facilities and provide new facilities in tandem with opportunities for significant new housing.
- To promote and facilitate a sustainable transport system for Leixlip that prioritises walking, cycling and public transport and provides an appropriate level of road infrastructure, road capacity and traffic management to support the future development of the town.
- To phase significant future growth in line with the capacity and delivery of supporting physical infrastructure.
- To protect, enhance, create and connect natural heritage, including areas of international biodiversity importance, high quality amenity areas and other green spaces throughout Leixlip for both biodiversity and recreational use.
- To protect, conserve and manage the unique built heritage of the town and to encourage sensitive sustainable development so as to ensure its survival and maintenance for future generations.
- To ensure that best practice urban design principles are applied to all new development, based on the principle that well planned and integrated development enhances the sustainability, attractiveness and quality of an area.
- To phase new development to ensure that it occurs in an orderly and efficient manner in accordance with proper planning and sustainable development.

Figure 2.1 below shows the LAP Boundary for Leixlip.



Map 2.1: Leixlip LAP Boundary Area

2.4 Relationships with other relevant Plans and Programmes

The proposed Draft Leixlip LAP sits within a hierarchy of strategic plans and programmes, including those listed below and detailed in Section 4 of this Report. The Draft LAP must comply with relevant higher level strategic plans such as policies and objectives of the relevant County Development Plan.

The Draft LAP is subject to a number of high level environmental protection policies and objectives with which it must comply, including those which have been identified as Strategic Environmental Objectives in Section 6. Examples of Environmental Protection Objectives include the aim of the EU Habitats Directive - which is to contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of Member States - and the purpose of the Water Framework Directive - which is to establish a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwater which, among other things, avoids deterioration in the status of all water bodies and protects, enhances and restores all waters with the aim of achieving good status.

2.5 Implications for the Draft Leixlip LAP

Article 9 of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004, as amended, sets out criteria for determining whether SEA

should be undertaken on certain types of plans. Considering these criteria, Kildare County Council concluded that an SEA was required for the proposed Draft LAP, as it is within the mandatory requirement for SEA where the population for the preparation of a local area plan for an area has a target population of 5,000 persons or greater.

The findings of the SEA are set out in this Environmental Report, which accompanies the proposed Draft LAP on public display. These findings may be altered in order to take account of recommendations contained in submissions and/or in order to take account of any changes which are made to the Draft LAP on foot of submissions. Kildare County Council will also take into account the findings of this Environmental Report during their consideration of the Draft LAP and before it is finalised. If the Draft LAP is finalised, an SEA Statement will be prepared which will summarise, inter alia, how environmental considerations have been integrated into the document.

3.0 Methodology

3.1 Introduction

The methodology used to carry out the Strategic Environmental Assessment (SEA) of the proposed Draft Leixlip LAP reflects the requirements of the SEA Directive (2001/42/EC), SEA Regulations (S.I. 435 & 436 of 2004, as amended by S.I. 200 & 201 of 2011 respectively) and various SEA Guidance documentation as noted in sub-section 2.2.1 of this Environmental Report.

The SEA process follows a sequential step by step process as set out in Table 3.1 and the preparation of the proposed Draft LAP is integrated with the SEA and AA processes as illustrated in Figure 3.1. The preparation of the Draft LAP is currently at a stage where this SEA Environmental Report, Strategic Flood Risk Assessment and a separate Appropriate Assessment Screening (AA) have been prepared and will accompany the proposed Draft LAP on public display.

To date, the SEA process has included for Screening of the proposed Draft LAP to determine the requirement for Strategic Environmental Assessment, and for Scoping with Environmental Authorities to determine nature and scope of the environmental assessment.

Therefore, this Environmental Report takes account of the content of SEA scoping submissions from environmental authorities and the environmental impacts of the Draft LAP have been predicted, evaluated and mitigated.

Table 3.1 – Stages in the SEA Process

STAGE	DESCRIPTION
Screening	<p>The screening process is the first stage of the Strategic Environmental Assessment. Screening assesses the need to undertake a Strategic Environmental Assessment.</p> <p>In accordance with Section 14A (1) of the Planning and Development Regulations, as amended, SEA must be carried out on the likely significant effects on the environment of implementing a Local Area Plan for towns with a population or target population of 5,000 or more; therefore a Strategic Environmental Assessment is a mandatory requirement for the implementation of the Draft Leixlip LAP 2017-2023.</p>
Scoping	<p>Scoping, which is the second stage in the SEA process, allows for determination of the range of key issues, to be addressed in the Environmental Report (Stage 3) as set out in S.I. 436/2004, as amended by S.I. 201 of 2011 and in Annex I of the SEA Directive.</p> <p>Scoping ensures that the SEA is focused on the relevant environmental issues and examines issues at the appropriate level of detail. The Scoping Stage also allows for consultation via a Scoping Report with the Statutory Authorities. By highlighting some of the significant issues at an early stage, it ensures that the issues are firmly to the forefront when considering each of the policies and objectives of the Draft LAP and reduces the possibility of relevant issues not being addressed.</p>
Consultation with Environmental	<p>Submissions were received from:</p> <ul style="list-style-type: none"> • The Environmental Protection Agency

STAGE	DESCRIPTION
Authorities	<ul style="list-style-type: none"> • Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs • Inland Fisheries Ireland <p>Submissions received from Environmental Authorities were reviewed and incorporated into the SEA process as appropriate.</p>
Preparation of Proposed Draft Leixlip LAP & SEA Environmental Report	<p>A multi-disciplinary team has been established to create policy consistent documents and to examine the effects on the environment of implementing the objectives and policies.</p> <p>Objectives created in the Draft LAP have been assessed in the Environmental Report and proposed measures for the area examined.</p> <p>Feedback has been received throughout the LAP preparation process & Environmental Report preparation</p> <p>Mitigation measures have been discussed and selected.</p> <p>Monitoring of implementation of proposed LAP</p>
Consultation	<p>Consultation on the Draft Leixlip LAP and accompanying Environmental Report, Appropriate Assessment and Strategic Flood Risk Assessment.</p>
Evaluation of submissions	<p>Evaluation of submissions and observations made on the proposed Draft LAP, Environmental Report, Strategic Flood Risk Assessment and Appropriate Assessment Screening.</p>
Finalisation of the Draft Leixlip LAP, Environmental Report & SEA Statement	<p>Finalisation of the Draft LAP and SEA Environmental Report. SEA Statement prepared identifying how environmental considerations and consultations have been integrated into the final LAP.</p>
Monitoring	<p>Monitoring of significant environmental effects over the lifetime of the Draft Leixlip LAP 2017-2023</p>

3.2 SEA Screening

The SEA Directive and Regulations state that full SEA is a mandatory requirement in respect of certain Plans or Programmes. In particular, Article 14A (1) (of S.I. 4536 of 2004 as amended by S.I. 201 of 2011) determines that this mandatory requirement for SEA applies to the preparation of a local area plan for an area where the population or the target population is 5,000 persons or greater.

The population of the area of the Draft Leixlip LAP 2017-2023 is greater than 5,000 persons (i.e. 7,935 persons, Census 2016) and as such the preparation of the local area plan will be subject to full strategic environmental assessment.

3.3 Scoping

SEA Scoping allows for determination of the range of key issues, to be addressed in the environmental assessment and detailed in the Environmental Report. Scoping took place with the following environmental authorities:

- the Environmental Protection Agency
- the Minister of the Environment, Community and Local Government
- the Minister of Communications, Energy and Natural Resources
- the Minister of Agriculture, Food and the Marine
- the Minister of Arts, Heritage and the Gaeltacht; and
- the surrounding planning authorities of South Dublin County Council, Fingal County Council, Meath County Council, Offaly County Council, Laois County Council, Carlow County Council and Wicklow County Council.

3.3.1 Scoping Responses

Submissions were received from the following statutory consultees:

- The Environmental Protection Agency
- Department of Communications, Energy and Natural Resources
- Office of the Minister for Agriculture, Food and the Marine, Dublin 2
- Department of Arts, Heritage and the Gaeltacht

Table 3.2 below outlines the issues raised in submissions and the response and how these issues have been addressed within the preparation of the Environmental Report.

Table 3.2 – Summary of Scoping Submissions

CONSULTEE AND COMMENTS	RESPONSE
<p>Environmental Protection Agency</p> <ul style="list-style-type: none"> • Acknowledged receipt of the Scoping Report for the Draft Leixlip LAP (incl. Collinstown). • A number of river bodies within/adjacent to the Plan area are classified as having <i>Moderate</i> or <i>Poor</i> status under the Water Framework Directive in 2010-2012 • Protecting designated National and European Sites within / adjacent to the Plan area including the Liffey Valley (pNHA), Royal Canal (pNHA) and Rye Water Valley/ Carton (pNHA/SAC), should be a key consideration of the Plan • The Plan should ensure that development within the Plan area is aligned with the ability to provide the required critical service infrastructure (drinking water, wastewater, waste etc.). • The EPA's <i>LEMA (Licencing, Enforcement, Monitoring and Assessment)</i> system identifies a historic landfill site (code S22-02403) within the Plan area. The <i>EPA Code of Practice: Environmental Risk Assessment for Unregulated Waste Disposal Sites (April 2007)</i> should be taken into consideration. Any potential future proposals for re-zoning/development of these lands (or adjacent to these lands) needs to be 'most 	<p>Comments and suggestions have been considered in the preparation of the Environmental Report</p>

CONSULTEE AND COMMENTS	RESPONSE
<p><i>appropriate to the potential sensitivities’.</i></p> <ul style="list-style-type: none"> The <i>Eastern Midland Regional Waste Management Plan</i> should be integrated, as relevant, into the Plan. 	
Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs	
<ul style="list-style-type: none"> Acknowledged receipt of the Scoping letter and made the following recommendations Proposed developments, due to their location, size, or nature that may have implications for the archaeological heritage should be subject to archaeological assessment. Such developments include those that are located at or close to a Recorded Monument, those that are extensive in terms of area (1/2 hectare or more) or length (1 kilometer or more), those that may impact the underwater environment (riverine or lacustrine) and developments that require an Environmental Impact Statement. Under the National Monuments Act it is obligatory to report all discoveries of archaeological objects and wrecks over 100 years old within 4 days of discovery. 	Comments and suggestions have been considered in the preparation of the Environmental Report
Inland Fisheries Ireland	
<ul style="list-style-type: none"> Acknowledged receipt of Scoping Report and confirmed that the proposed LAP would be brought to the attention of the Minister for Agriculture, Food and Marine. 	Noted

3.4 Environmental Report

The information to be provided in the Environmental Report is set out in Annex I of the SEA Directive and reproduced in Schedule 2B of the Planning and Development Regulations 2001 (as inserted by article 12 of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 as amended). This report contains the sections as outlined in Table 3.3.

In this SEA Environmental Report, which is placed on public display alongside the Draft Leixlip LAP, the likely environmental effects of the proposed Draft LAP and the alternatives are predicted and their significance evaluated with regard to the Environmental baseline. The Environmental Report provides stakeholders and the public with a clear understanding of the likely environmental consequences of implementing the Draft LAP.

Mitigation measures to avoid or reduce potential negative effects posed by the proposed LAP are identified in Section 9.

The Environmental Report will be updated in order to take account of recommendations contained in submissions and to take account of changes which are made to the original LAP that is being placed on public display.

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

Table 3.3: SEA Report Structure

SECTION	DESCRIPTION
Non-Technical Summary	A brief summary of the Environmental Report, its main points and conclusions.
Introduction & Background	This section outlines the purpose of the Environmental Report and Strategic Environmental Assessment as well as providing a brief description of the Draft LAP.
SEA Process	The steps taken in Strategic Environmental Assessment and in the preparation of the Environmental Report, including the methods used and technical difficulties encountered.
Review of Relevant Policies, Plans and Programmes	The relationship of the LAP to other relevant plans and programmes is highlighted.
Baseline Environment	A description of the current environment of the Leixlip LAP boundary area is given, highlighting any existing environmental problems. This exercise results in a comprehensive baseline against which the likely effects of implementing the Draft LAP can be examined.
Strategic Environmental Objectives	A number of environmental protection objectives which have been established at international, EU or national Level and are relevant to the proposed Draft LAP are listed. Following this, a description of how the objectives and any environmental considerations have been taken into account in the preparation of the proposed Draft LAP is given.
Alternatives	An assessment of proposed alternatives to the approach as set out in the Draft LAP are considered and assessed.
Environmental Assessment	An examination of the measures and objectives of the Draft Plan in terms of its potential effects on the various Environmental parameters.
Mitigation Measures	Should potentially significant effects be discovered, measures to avoid, reduce or offset these effects are proposed and integrated into the Draft LAP, as appropriate.
Monitoring	Proposals for monitoring the significant effects of the Draft LAP on the environment are put forward. A number of indicators of change and targets are identified and existing monitoring arrangements are utilised.



Figure 3.1 Outline of proposed Draft Leixlip Local Area Plan and integration with SEA Process

3.5 SEA Statement

When the Draft Leixlip LAP is finalised, an SEA Statement will be prepared which will include information on:

- How environmental considerations have been integrated into the amended plan, highlighting the changes to the amended plan which resulted from the SEA process;
- How the SEA Environmental Report and consultations have been taken into account, summarising the key issues raised in consultations and in the Environmental Report indicating what action was taken in response;
- The reasons for choosing the Plan in the light of other alternatives considered, identifying these alternatives, commenting on their potential effects and explaining why the final LAP was selected; and the measures decided upon to monitor the significant environmental effects of implementing the plan.

3.6 Appropriate Assessment (AA)

The need for 'Appropriate Assessment' (AA) arises out of Article 6(3) and 6(4) of the Habitats Directive (92/43/EEC) (on the conservation of natural habitats and of wild fauna and flora).

An Appropriate Assessment (AA) Screening was also carried out in accordance with Article 6 of the EU Habitats Directive and as required under the Planning and Development Acts 2000-2013. The AA Screening is a separate but parallel process that has influenced the SEA process in the drafting of the Local Area Plan. The Appropriate Assessment Screening specifically assesses the potential impact on Natura 2000 sites (and their conservation objectives) arising from the implementation of the plan based on the Screening Report and other supplementary information with the ultimate aim to avoid significant adverse impacts on these sites. This screening found that likely significant effects of the LAP on the integrity of the Rye Water Valley / Carton Special Area of Conservation, (Site Code 002162) could not be ruled out, and therefore full Appropriate Assessment would be required. The mitigation measures identified in the Stage 2 Appropriate Assessment (i.e. Natura Impact Statement) have been incorporated into the current Draft Plan.

The Stage 2 Appropriate Assessment shall be published parallel to the LAP and Environmental Report.

3.7 Strategic Flood Risk Assessment (SFRA)

A Strategic Flood Risk Assessment (SFRA) has also been carried out and accompanies the LAP at public consultation. The findings of the SFRA have been considered in the preparation of this Environmental Report.

4.0 Review of Relevant Policies, Plans and Programmes

4.1 Introduction

The Draft LAP is framed within a hierarchy of spatial plans which range from the international down to site specific level. These plans are informed by International, National and Regional level policy guidelines. This hierarchy of plans, programmes, policies and strategies sets the legislative and policy framework by which the LAP must be formulated. The National, Regional and County strategies and policies play a central role in establishing higher level agendas and the county level plan objectives. The Leixlip LAP is required to conform to and translate the objectives of these higher levels plans, in particular the Kildare County Development Plan 2011-2017 and the Kildare County Development Plan 2017-2023, to a local area basis.

The SEA Directive requires that the SEA process should include a review of other plans or programmes, which are associated with and concern the assessment of the Draft LAP. The key issue is that the Draft LAP and its SEA has taken due consideration of the objectives set out in the legislative and policy framework. The following plans, programmes, policies, strategies and guidelines are relevant to the making of the Draft LAP.

4.2 European and National Legislation & Policy

4.2.1 *National Spatial Strategy 2002-2020*

The National Spatial Strategy (NSS) is a coherent national planning framework for Ireland for the next 20 years. The NSS aims to achieve a better balance of social, economic and physical development across Ireland, supported by more effective planning. The Strategy aims to achieve balanced development throughout the country by setting out a range of measures to be implemented at the national, regional, county and local level.

The focus of the NSS is on people, places and building communities. The NSS is intended to provide an upper-tier of strategic guidance that feeds into general government policy-making and also into the regional and local development planning framework. In order to further these aims, the NSS sets down a series of policies in relation to: employment, housing, rural development, access to services, and quality of life/environmental quality. The strategy identifies a limited number of Regional Gateways and Hubs. Kildare is located within the Dublin and Mid East Region as designated by the NSS.

A new National Planning Framework is currently being developed to succeed the National Spatial Strategy. It will provide a framework for national planning, pulling together relevant Government policies and investment on national and regional development. It will have a focus on economic development and investment in housing, water services, transport, communications, energy, and health and education infrastructure at national, regional and local level.

The National Planning Framework will be a statement of the Government's objectives for Ireland's spatial development and it will form the top tier of Ireland's planning policy hierarchy.

4.2.2 *Sustainable Rural Housing – Guidelines for Planning Authorities 2005*

The Rural Housing Guidelines seek to ensure that sustainable housing development patterns are supported in rural areas and that the policies and practices of planning authorities should seek to:

- (1) Ensure that the needs of rural communities are identified in the development plan process and that policies are put in place to ensure that the type and scale of residential and other development in rural areas, at appropriate locations, necessary to sustain rural communities is accommodated.
- (2) Manage pressure for overspill development from urban areas in the rural areas closest to the main cities and towns such as the gateways, hubs, and other large towns.
- (3) Take account of other related dimensions in relation to rural settlement such as environmental and heritage protection and the need to maintain the integrity of economic resources

The Guidelines suggest that settlement strategies should start by putting forward a development vision for rural areas that:

- Aims to support the sustainable development of these areas in economic, social and environmental terms in a way that supports the rural economy and rural communities,
- Ensures that development of rural areas takes place in a way that is compatible with the protection of key economic, environmental and natural and cultural heritage assets such as the road network, water quality, important landscapes, key identified areas with wind energy potential, habitats and built heritage, and
- Promotes the development and consolidation of key settlements in rural areas.

4.2.3 *Delivering Homes, Sustaining Communities, (2007)*

This 2007 policy statement provides for an integrated approach to housing and planning in Ireland. The policy recognises that continued strong demand for housing presents major challenges in respect of the planning of new housing and associated services. Sustainable neighbourhoods involve the efficient use of land and quality urban design, effectively integrated with the supply of appropriate physical and social infrastructure by providing a quality environment; sustainable neighbourhoods also contribute to the provision of attractive locations to support the NSS objective for a more coherent form of future regional development.

4.2.4 *Quality Housing for Sustainable Communities, (2007)*

Design guidelines intended to assist in the implementation of the policies set out in *Delivering Homes Sustaining Communities* (above). The aim of these Guidelines is to identify principles and criteria that are important in the design of housing and to highlight specific design features, requirements and standards that have been found to be particularly relevant.

4.2.5 *Sustainable Urban Housing: Design Standards for New Apartments. Guidelines for Planning Authorities (2007)*

The primary aim of these guidelines is to promote sustainable urban housing, by ensuring that the design and layout of new apartments will provide satisfactory

accommodation for a variety of household types and sizes – including families with children - over the medium to long term.

These guidelines provide recommended minimum standards for:

- floor areas for different types of apartments,
- storage spaces,
- sizes for apartment balconies / patios, and
- room dimensions for certain rooms

4.2.6 *Rebuilding Ireland, Action Plan for Housing and Homelessness*

This Government Strategy states: *“Since 2009, persistent under-supply, means that the housing supply deficit is likely to currently exceed 50,000 homes, suggesting that to address both accumulated under-supply and meet future needs, the objective may well need to be to reach supply levels in excess of 25,000 units per annum. The first step, however, is to move from current levels (12,666 in 2015) towards 25,000 per annum as quickly as possible – and it is this transition, coupled with a significant increase and acceleration in social housing delivery, that is the primary focus of the Plan”.*

The document outlines actions based on 5 pillars (referenced below).

The detailed strategy and actions of the Plan are based around 5 pillars:

1. Address homelessness
2. Accelerate social housing
3. Build more homes
4. Improve the rental sector
5. Utilise existing housing

The Plan outlines that boosting supply is fundamentally linked to all housing sector stakeholders re-shaping the entire delivery process, from land to infrastructure provision and through to construction methods, to match market affordability trends. In addition, the State sector must support an inherently affordable supply of housing through the measures under its control.

4.2.7 *Smarter Travel, A Sustainable Transport Future, A New Transport Policy for Ireland 2009-2020*

This document represents the transport policy for Ireland for the period 2009-2020

Key goals of this policy are:

- (i) To reduce overall travel demand,
- (ii) To maximise the efficiency of the transport network,
- (iii) To reduce reliance on fossil fuels,
- (iv) To reduce transport emissions, and
- (v) To improve accessibility to transport.

The policy sets out 49 Key Actions for achieving sustainable transport. They can be grouped into the following four themes:

- Actions to reduce distance travelled by private car and encourage smarter travel.

- Actions aimed at ensuring that alternatives to the car are more widely available.
- Actions aimed at strengthening institutional arrangements to deliver the targets.
- Actions aimed at improving the fuel efficiency of motorised transport.

4.2.8 *Water Framework Directive (2000/60/EC) as amended*

The EU Water Framework Directive (2000/60/EC) requires all Member States to protect and improve water quality in all waters so that we achieve good ecological status by 2015 or, at the latest, by 2027. It was given legal effect in Ireland by the European Communities (Water Policy) Regulations 2003 (S.I. No. 722 of 2003). It applies to rivers, lakes, groundwater, and transitional coastal waters. The Directive requires that management plans be prepared on a river basin basis and specifies a structured method for developing these plans.

River Basin Management Plans (RBMPs) are plans to protect and improve Ireland's water environment. They are prepared and reviewed every six years. Preparation of the 2nd Cycle RBMPs is now underway.

For the 2nd Cycle, the Eastern, South Eastern, South Western, Western and Shannon River Basin Districts will be merged to form one national River Basin District. In relation to the North Western and Neagh Bann International River Basin Districts a single administrative area will be established in the Republic of Ireland portion of these two IRBDs for the purpose of coordinating their management with authorities in Northern Ireland

While this rearrangement will lead to efficiencies in relation to matters such as assessment and reporting, regionalised administrative structures will be put in place to support implementation (e.g. river basin district characterisation, the development of programmes of measures, enforcement, public consultation and awareness activities). Arrangements will also need to be put in place to facilitate the input of communities at local catchment level.

4.2.9 *The European Union (Water Policy) Regulations 2014 (S.I. No. 350 of 2014)*

The European Union (Water Policy) Regulations 2014 (S.I. No. 350 of 2014) sets out the roles and responsibilities of the various stakeholders and the associated requirements in relation to river basin management planning and should be integrated as appropriate. These responsibilities should be reflected in the Plan and the associated environmental monitoring.

4.2.10 *Floods Directive (2007/60/EC)*

Directive 2007/60/EC on the assessment and management of flood risks entered into force on 26 November 2007. The Directive aims to establish a common framework for assessing and reducing the risk that floods within the European Union pose to human health, the environment, property and economic activity. This Directive requires Member States to assess if all water courses and coast lines are at risk from flooding, to map the flood extent and assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk. This includes the preparation and implementation of flood risk management plans for each river basin district. This Directive also reinforces the rights of the public to access this information and to have a say in the planning process.

4.2.11 *EC Freshwater Fish Directive, (78/659/EEC) 1978*

The aim of the EU Freshwater Fish Directive (78/659/EEC) is to protect fish life from pollution discharge into waters and lays out water sampling and monitoring procedures and definitions. The Directive was ratified by Ireland by S.I. No. 293 of 1988, and aims to protect those fresh water bodies identified by Member States as waters suitable for sustaining fish populations. The Directive is due to be repealed in 2013 by the EU Water Framework Directive.

4.2.12 *The Groundwater Directive, (2006/118/EC) 2006*

This directive establishes a regime which sets underground water quality standards and introduces measures to prevent or limit inputs of pollutants into groundwater. The directive establishes quality criteria that takes account local characteristics and allows for further improvements to be made based on monitoring data and new scientific knowledge. The directive thus represents a proportionate and scientifically sound response to the requirements of the Water Framework Directive (WFD) as it relates to assessments on chemical status of groundwater and the identification and reversal of significant and sustained upward trends in pollutant concentrations. Member States will have to establish the standards at the most appropriate level and take into account local or regional conditions.

The groundwater directive complements the Water Framework Directive. It requires:

- groundwater quality standards to be established by the end of 2008;
- pollution trend studies to be carried out by using existing data and data which is mandatory by the Water Framework Directive (referred to as "baseline level" data obtained in 2007-2008);
- pollution trends to be reversed so that environmental objectives are achieved by 2015 by using the measures set out in the WFD;
- measures to prevent or limit inputs of pollutants into groundwater to be operational so that WFD environmental objectives can be achieved by 2015;
- reviews of technical provisions of the directive to be carried out in 2013 and every six years thereafter;
- compliance with good chemical status criteria (based on EU standards of nitrates and pesticides and on threshold values established by Member States).

A public consultation on the review of Annexes I and II of the Groundwater Directive was carried out in 2013 with the aim of collecting opinions on different policy options for the review of the Annexes, and to identify missing options and gather data on impacts.

4.2.13 *EC Bathing Water Quality Directive, (2006/7/EC) 2006*

This Directive strengthens the rules guaranteeing bathing water quality. It supplements Directive 2000/60/EC on water protection and management.

Each year, the Member States are required to identify the bathing waters in their territory and define the length of the bathing season.

They shall establish monitoring at the location most used by bathers or where the risk of pollution is greatest. Monitoring shall take place by means of sampling:

- four samples, including one before the start of the bathing season.
- three samples only if the season does not exceed eight weeks or if the region is subject to special geographical constraints.

Member States shall communicate the results of their monitoring to the European Commission with a description of the water quality management measures. Monitoring may be suspended exceptionally once the Commission has been informed.

4.2.14 *The Quality of Bathing Water in Ireland – A Report for the Year 2015,*

The EPA's most recent report on bathing water quality „The Quality of Bathing Water in Ireland – A Report for the Year 2015, (EPA, 2016)' sets out the status of Irish Seawater and Freshwater Bathing areas and should be integrated as appropriate. The EPA's available bathing water advice/guidance includes an online GIS resource called "Splash" which should be considered.

4.2.15 *EU Directive on the Conservation of Wild Birds, (2009/147/EC) 1979*

This Directive ensures far-reaching protection for all of Europe's wild birds, identifying 194 species and sub-species among them as particularly threatened and in need of special conservation measures. There are a number of components to this scheme:

Member States are required to designate Special Protection Areas (SPAs) for 194 particularly threatened species and all migratory bird species. SPAs are scientifically identified areas critical for the survival of the targeted species, such as wetlands. They are part of the Natura 2000 ecological network set up under the Habitats Directive 92/43/EEC.

A second component bans activities that directly threaten birds, such as the deliberate killing or capture of birds, the destruction of their nests and taking of their eggs, and associated activities such as trading in live or dead birds (with a few exceptions).

A third component establishes rules that limit the number of bird species that can be hunted and the periods during which they can be hunted. It also defines hunting methods which are permitted (e.g. non-selective hunting is banned).

4.2.16 *EU Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, (92/43/EEC), 1992*

In conjunction with the Birds Directive, the Habitats Directive forms the backbone of EU nature protection legislation.

Known as the Habitats Directive (92/43/EEC) this legislation was transposed into Irish law by the European Communities (Natural Habitats) Regulations, 1997 (S.I. No. 94 of 1997). The main goal of the Directive is to promote the maintenance of biodiversity by requiring Member States to take measures to maintain, protect or restore natural habitats, animal and plant species to a favourable conservation status, introducing robust protection for those habitats and species of European importance. For Ireland, these habitats include raised bogs, active blanket bogs, turloughs, sand dunes, machair (flat sandy plains on the north and west coasts), heaths, lakes, rivers, woodlands, estuaries and sea inlets. The Directive provides for a network of protected sites known as The Natura 2000 network, which limits the extent and nature of development which may have a detrimental effect on the flora or fauna identified therein. Special Areas of Conservation (SACs) are part of the Natura 2000 Network and as such Ireland is required to propose relevant areas for designation as SACs to ensure the natural habitats and species habitats are maintained and restored if necessary to a favourable conservation status. Animals and plant species that are in need of strict protection are listed in

Annexes to the Directive. The Habitats Directive is considered the most important EU initiative to support National and International biodiversity.

4.2.17 European Communities (Birds and Natural Habitats) Regulations 2011

These regulations consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats)(Control of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in the CJEU judgements.

Articles 6(1) and (2) of the Regulations require Member States to take appropriate conservation measures to maintain and restore habitats and species, for which a site has been designated, to a favourable conservation status. Furthermore the Regulations require Member States to avoid damaging activities that could significantly disturb these species or deteriorate the habitats of the protected species or habitat types. Under these regulations any plan or project likely to have a significant effect on a Natura 2000 site, either individually or in combination with other plans or projects, shall undergo an Appropriate Assessment to determine its implications for the site.

The competent authorities can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site concerned. In exceptional circumstances, a plan or project may still be allowed to go ahead, in spite of a negative assessment, provided there are no alternative solutions and the plan or project is considered to be of overriding public interest. In such cases the Member State must take appropriate compensatory measures to ensure that the overall coherence of the Natura 2000 Network is protected. Article 12 of the Regulations is also important as it affords protection to specific species regardless of their location.

4.2.18 SEA Directive - Assessment of the effects of certain plans and programmes on the Environment, (2001/42/EC) 2001

This Directive requires plan-makers to carry out an assessment of the likely significant environmental effects of implementing a plan or programme before the plan or programme is adopted. There are two statutory instruments which transposed the SEA Directive into Irish Law:

The SEA Directive (2001/42/EEC) came into force in 2004 and was subsequently transposed into Irish law through S.I. No. 435 of 2004 European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 and S.I. No. 436 of 2004 Planning and Development (Strategic Environmental Assessment) Regulations 2004 *as* amended by S.I. No. 200 of 2011 European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 and S.I. No. 201 of 2011 Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011 respectively.

4.2.19 Environmental Impact Assessment Directive (85/337/EEC) (97/11/EC), 1985

The EIA Directive (85/337/EEC) came into force in 1985 and applies to a wide range of defined public and private projects, which are defined in Annexes I and II of the Directive. The Directive has been amended three times, in 1997, 2003 and 2009. Under the Directive Member States are required to carry out Environmental Impact Assessments (EIA) of certain public and private projects, before they are authorised, where it is believed that the projects are likely to have a significant impact on the environment.

The initial Directive of 1985 and its three amendments have been codified by Directive 2011/92/EU of 13 December 2011.

4.2.20 *Environmental Impact Assessment Directive 2014/52/EU*

The EIA Directive (2014/52/EU) updates the above Directive by providing EU guidance on the interpretation of project, which are defined in Annexes I and II of the Directive. The Directive is expected to be transposed into Irish law in May 2017 and will include amendments to quality assurance, assessment of alternatives, Post-consent monitoring conditions and penalties.

4.2.21 *European Landscape Convention 2000*

The 2000 European Landscape Convention, adopted in Florence (and was ratified by Ireland in 2002), requires a commitment to introduce policies on landscape protection and management. It promotes the protection, management and planning of EU landscapes as a response to European-wide concerns that the quality and diversity of landscapes were deteriorating. The underlying purpose of the Convention is to encourage public authorities to adopt policies and measures at local, Regional, National and International level to protect and manage landscapes throughout Europe.

4.2.22 *The Planning System and Flood Risk Management Guidelines (and Technical Appendices) for Planning Authorities (DoEHLG, OPW), 2009*

These guidelines require the planning system at national, regional and local levels to:

- Avoid development in areas at risk of flooding, particularly floodplains, unless there are proven wider sustainability grounds that justify appropriate development and where the flood risk can be reduced or managed to an acceptable level without increasing flood risk elsewhere;
- Adopt a sequential approach to flood risk management when assessing the location for new development based on avoidance, reduction and mitigation of flood risk; and
- Incorporate flood risk assessment into the process of making decisions on planning applications and planning appeals

In relation to planning the guidelines require planning authorities to:

- introduce flood risk assessment as an integral and leading element of their forward planning functions at the earliest practicable opportunity.
- Align strategic flood risk assessment (SFRA) with the SEA process.
- Establish flood risk assessment requirements as part of the preparation of statutory land use plans.
- Assess planning applications against the guidance set out in the Guidelines.
- Ensure development is not permitted in areas of flood risk except where there are no suitable alternative sites.

4.2.23 *National Renewable Energy Action Plan, (NREAP) 2010*

Submitted under Article 4 of Directive 2009/28/EC this plan sets out Ireland's renewable energy targets to be achieved by 2020. Ireland's overall target is to achieve 16% of energy from renewable sources by 2020. Member states are to achieve their individual target across the heat, transport and electricity sectors and apart from a sub-target of a minimum of 10% in the transport sector that applies to all Member States,

there is flexibility for each country to choose how to achieve their individual target across the sectors.

4.2.24 *Appropriate Assessment of Plans and Projects in Ireland - Guidelines for Planning Authorities (2009)*

Formulated to assist with compliance with Article 6 of the Habitats Directive Article 6(3) states that:

Any plan or project not directly connected with or necessary to the management of a Natura 2000 site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives.

Appropriate Assessment is a focused and detailed impact assessment of the implications of the plan or project, alone and in combination with other plans and projects, on the integrity of a Natura 2000 site in view of its conservation objectives.

4.2.25 *Wildlife (Amendment) Act 2000*

The Wildlife Act is Ireland's primary national legislation for the protection of wildlife. It covers a broad range of issues, from the designation of nature reserves, the protection of species, regulation of hunting and controls in wildlife trading. It is implemented by a series of regulations. The Act provides strict protection for nearly all birds, 22 other animal species, and 86 plant species. These species are protected from injury, or from disturbance / damage to their breeding or resting place wherever these occur. The 2000 Act was amended in 2010.

The main objectives of the Wildlife (Amendment) Act, 2000 are to:

- provide a mechanism to give statutory protection to NHAs;
- provide for statutory protection for important geological and geomorphological sites, including fossil sites by designation as NHAs;
- improve some existing measures, and introduce new ones, to enhance the conservation of wildlife species and their habitats;
- enhance a number of existing controls in respect of hunting, which are designed to serve the interests of wildlife conservation;
- broaden the scope of the Wildlife Acts to include most species, including the majority of fish and aquatic invertebrate species which were excluded from the 1976 Act;
- introduce new provisions to enable regulation of the business of commercial shoot operators;
- ensure or strengthen compliance with international agreements and, in particular, enable Ireland to ratify the Convention on International Trade in Endangered Species (CITES) and the African-Eurasian Migratory Waterbirds Agreement (AEWA).
- increase substantially the level of fines for contravention of the Wildlife Acts and to allow for the imposition of prison sentences;
- provide mechanisms to allow the Minister to act independently of forestry legislation, for example, in relation to the acquisition of land by agreement;
- strengthen the provisions relating to the cutting of hedgerows during the critical bird-nesting period and include a requirement that hedgerows may only be cut during that period by public bodies, including local authorities, for reasons of public health or safety;

- strengthen the protective regime for Special Areas of Conservation (SACs) by removing any doubt that protection will in all cases apply from the time of notification of proposed sites;
- and give specific statutory recognition to the Minister's responsibilities in regard to promoting the conservation of biological diversity, in light of Ireland's commitment to the UN Convention on Biological Diversity.

4.2.26 *Architectural Heritage Protection - Guidelines for Planning Authorities (2011)*

The 2004 guidelines were reissued in 2011 following the transfer of architectural heritage protection functions to the Department of Arts, Heritage and the Gaeltacht.

Part IV of the Planning and Development Acts 2000 – 2011 sets out the legislative provisions for the protection and conservation of our architectural heritage. The main features of the act in this respect are:

- Local authorities must create and maintain a Record of Protected Structures (RPS) which is to include all structures within the administrative area which are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. The RPS must form part of the Development Plan for each county.
- Local authorities must also protect the character of places and townscapes which are comply with the special interests listed above. This is done through the designation of Architectural Conservation Areas (ACAs) which are also to be contained within Development Plans.
- Development plans must include objectives for the protection of such structures and the preservation of the character of such areas to ensure proper and sustainable planning and development.
- Owners and occupiers of protected structures can be held responsible in ensuring that buildings are not endangered either directly or through neglect.

4.2.27 *National Climate Change Strategy (2007-2012)*

The National Climate Change Strategy 2007 - 2012 sets out a range of measures, building on those already in place under the first National Climate Change Strategy (2000) to ensure Ireland reaches its target under the Kyoto Protocol. The Strategy provides a framework for action to reduce Ireland's greenhouse gas emissions

The Framework for Climate Change Bill published in December 2009 provides for a statutory obligation on the Minister to propose to the Government a National Climate Change Strategy on a 5 year cycle and to review the previous Strategy at the end of this time. The Strategy will set an overall reduction target for the 5-year period within the context of the long-term and annual reduction targets set out in the Bill (as subject to review by the Minister). It will also set the policy context for the Carbon Budget and set out requirements in terms of policy objectives for the various sectors in the economy.

4.2.28 *A National Landscape Strategy for Ireland – Strategy Issues Paper for Public Consultation, (Sept 2011)*

The Department of Arts, Heritage and the Gaeltacht has issued A National Landscape Strategy for Ireland – Strategy Issues Paper for Public Consultation, which sets out objectives and principles in the context of a proposed National Landscape Strategy for Ireland. This strategy is being prepared in compliance with the European Landscape Convention.

This document sets out Ireland's aims and objectives with regard to landscape and positions it in the context of existing strategies, policies and objectives as well as the framework of the European Landscape Convention.

The National Landscape Strategy, when completed, will add to the suite of national plans (including the National Spatial Strategy 2002-2020 and the National Climate Change Strategy 2007-2012) which will be used to map out the future sustainable development of the country.

The main objective of the Strategy will be to set out a framework which seeks the right balance between management, planning and protection of the landscape. Its primary aim will be the sustainable management of change affecting landscape: it is not the preservation or "freezing" of the landscape at a particular point in its continuing evolution.

4.2.29 Environmental Noise Directive 2006

The objectives of EU and Irish noise legislation is "to avoid, prevent or reduce harmful effects on human health and the environment as a whole", and this includes noise nuisance. To this effect the Plan should ensure this requirement is complied with. The assessment and management of noise from the main infrastructural transport sources (roads, rail, and airports) are governed by the Environmental Noise Directive and associated 2006 Environmental Noise Regulations (S.I. 140 of 2006). In this context, as appropriate, the Plan should promote the implementation of Environmental Noise Directive and associated national regulations. <http://www.environ.ie/environment/noise/si-140-2006environmental-noise-regulations-2006>

Available Noise Action Plans should be taken into account also and reviewed as required, to reflect the Plan period and associated development proposals. Consideration should be given to any relevant noise maps, and action plans. Strategic noise maps are designed to assess noise exposure resulting from major roads, railways and airports. Noise action plans are designed to act as a means of managing environmental noise through land use planning, traffic management and control of noise sources. The third round of noise mapping is currently underway in Ireland and will be completed in 2018. <http://noise.eionet.europa.eu/help.html>.

4.3 Regional and Local Plans and Policies

4.3.1 Regional Planning Guidelines for the Greater Dublin Area (2010-2022)

The Regional Planning Guidelines for the Greater Dublin Area 2010-2022 give effect, at a Regional level, to the national planning framework put forward in the National Spatial Strategy (NSS) and National Development Plan (NDP). They provide a Regional framework for the formulation of policies and strategy in the County Development Plan and seek to ensure the proper balance between the different settlements in the region with regard to development, population and services. The Guidelines present an updated Regional settlement strategy. They also set out 'Population Targets' for the region and for each County, including County Kildare, which have been formulated having regard to the January 2009 'population targets' issued by the Department of Environment, Heritage and Local Government (DoEHLG) and supplementary guidance of August and October 2009.

Furthermore, the Guidelines outline a range of criteria for Development Plans in the context of population and settlement and identify strategic infrastructure investments for the region, this criteria then feeds from the County Plan through to the preparation of Local Area Plans. This Regional guidance has influenced the development of the settlement strategy for County Kildare and in turn the Leixlip plan area.

4.3.2 *Greater Dublin Area Transport Strategy 2016-2035*

The transport strategy constitutes a framework for the planning and delivery of transport, infrastructure and services for the GDA for the next 20 years.

Land use planning in the Greater Dublin Area, which covers the counties of Dublin, Meath, Kildare and Wicklow, is guided by the Regional Planning Guidelines for the Greater Dublin Area 2010-2022 (Regional Planning Guidelines).

The Strategy sets out a number of core principles deriving from its vision. These principle are as follows:

- Dublin as the capital city of Ireland and a major European centre shall grow and progress, competing with other cities in the EU, and serving a wide range of international, national, regional and local needs.
- The Dublin and Mid-East Regions will be attractive, vibrant locations for industry, commerce, recreation and tourism and will be a major focus for economic growth within the Country.
- The GDA, through its ports and airport connections will continue to be the most important entry/exit point for the country as a whole, and as a Gateway between the European Union and the rest of the World. Access to and through the GDA will continue to be a matter of national importance.
- Development in the GDA shall be directly related to investment in integrated high quality public transport services and focused on compact urban form. National Transport Authority Transport Strategy for the Greater Dublin Area 2016-2035
- Development within the existing urban footprint of the Metropolitan Area will be consolidated to achieve a more compact urban form, allowing for the accommodation of a greater population than at present, with much-enhanced public transport system, with the expansion of the built up areas providing for well-designed urban environments linked to high quality public transport networks, enhancing the quality of life for residents and workers alike.
- Development in the Hinterland Area will be focused on the high quality integrated growth and consolidation of development in key identified towns, separated from each other by extensive areas of strategic green belt land devoted to agriculture and similar uses. These towns will have high levels of employment activity, high order shopping and full range of social services, with good road and bus linkages to other towns and by high quality public transport to the City and play key roles in serving the surrounding rural communities and smaller towns and villages.”

4.3.3 *Greater Dublin Area Cycle Network Plan*

This Plan was published in 2014 and sets out the network of cycle routes to be developed throughout the Greater Dublin Area. Routes are classified in accordance to their strategic importance with the Greater Dublin Area and classifications vary from Primary / secondary Greenway down to Feeder and Minor Greenway.

The Royal Canal forms part of the Royal Canal Greenway K1/K2 as part of the Dublin Galway Cycle Route. The R148 is classified as a primary route linking Maynooth and Leixlip towards the City Centre. Distillery Lane and Distillery Bridge along with Captains Hill to Cope Bridge are both classified as feeder routes. The Rye Valley is designated as a minor greenway.

4.3.4 *Eastern Midlands Draft Regional Waste Management Plan 2015-2021*

Kildare is located in the North East region of the country in terms of waste management planning. The Draft Waste Management Plan sets out the proposed policy for integrated waste management within the region and places an emphasis on waste prevention and minimisation through source reduction, producer responsibility and public awareness and the management of recovery/recycling/disposal of regional waste. Dublin City Council is the lead authority progressing the preparation of a new waste management plan. The public consultation phase for this plan has commenced.

4.3.5 *Eastern River Basin District River Basin Management Plan (2009 – 2015)*

The Eastern River Basin District (ERBD) covers the Leixlip area of county Kildare and is one of eight river districts within the island of Ireland formed to aid the implementation of the requirements of the EU Water Framework Directive 2000/60/EC. The Directive requires the preparation of management plans for each district.

The ERBD River Basin Management Plan (RBMP) sets out the objectives for the water bodies within the plan area and outlines actions necessary to achieve these objectives. In compliance with the WFD these are to establish a framework for the protection of inland surface waters, transitional waters, coastal waters and groundwaters which:

- a) Prevents further deterioration and protects and enhances the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems;
- b) Promotes sustainable water use based on a long-term protection of available water resources;
- c) Aims at enhanced protection and improvement of the aquatic environment, including through specific measures for the progressive reduction of discharges, emissions and losses of priority substances and the cessation or phasing-out of discharges, emissions and losses of the priority hazardous substances;
- d) Ensures the progressive reduction of pollution of groundwater and prevents its further pollution, and
- e) Contributes to mitigating the effects of floods and droughts.

4.3.6 *Kildare County Development Plan 2017-2023*

The Kildare County Development Plan 2017-2023 sets out an overall vision, with strategies, policies and objectives for the county as a whole until 2023. This Plan sets out a strategy for the proper planning and sustainable development of County Kildare and has been prepared having regard to those matters that must be included in a County Development Plan (i.e. mandatory objectives) as well as those matters that may

be included (discretionary objectives) as required by the Planning and Development Acts 2000 (as amended).

Leixlip is located within the metropolitan area of Kildare. The key objective for the future development of the Metropolitan Area is to ensure consolidation of urban centres, development of brownfield sites especially along public transport corridors, the provision and facilitation of an integrated public transport system and the achievement of a greater use of sustainable transport modes through the integration of land use and transportation planning.

Leixlip (inc. Collinstown) is a large growth Town II in the settlement hierarchy and typology of County Kildare. This is smaller in scale but is a strong active growth town, economically vibrant with high quality transport links to larger towns/city.

The strategy for the future development of Leixlip will focus on the principles established in the Core Strategy as contained in the Kildare CDP 2017-2023.

4.3.7 *Kildare Biodiversity Plan (2009-2014)*

The County Kildare Biodiversity Action Plan was adopted in November 2009 and provides a framework for the conservation of biodiversity and natural heritage throughout the county. The Biodiversity Plan sets out a range of actions in terms of the biodiversity of Kildare which have been divided into four objectives:

- Objective 1: To facilitate the collection and dissemination of heritage information.
- Objective 2: To raise public awareness, understanding and appreciation of County Kildare's heritage.
- Objective 3: To promote best practice in heritage conservation and management.
- Objective 4: To inform policy and provide advice to Kildare local authorities

Implementation of the plan is on-going and co-ordinated by the Heritage Officer.

4.3.8 *Kildare 2012 - An Economic, Social and Cultural Strategy*

The Kildare County Development Board Strategy "Kildare 2012- An Economic, Social and Cultural Strategy" sets the framework within which Kildare County Development Board will operate for the next 10 years. The vision of this strategy is to make "Kildare-the first choice as a place to live, learn, work, visit and do business."

The strategy focuses on six key objectives, which are vital to ensuring this vision. These are to:

- (i). Develop transport and communications
- (ii). Respond to new settlement patterns
- (iii). Respond to contrasts within the county and towns
- (iv). Protect the environment
- (v). Develop education, training and capacity building and
- (vi). Develop a sense of place.

The Local Government Reform Act 2014, provided for the establishment of Local Community Development Committees (LCDC) to replace the County Development Board. The LCDC is currently preparing a six year Economic and Community Plan. This plan will agree the strategic framework for economic and community development for the

County and is expected to come into effect in 2015, superceding “Kildare 2012- An Economic, Social and Cultural Strategy”.

4.3.9 Kildare Local Authorities Housing Strategy 2011-2017

This strategy tracks the course of housing provision in Kildare during the period 2011-2017. The document is intended to serve the needs of all stakeholders in the housing provision process including individual citizens, housing associations, voluntary groups, house builders, landowners etc. The housing strategy seeks to ensure a range of housing for residents with different levels of income and make provision for social and affordable housing.

4.3.10 Leixlip Habitat Survey and Green Infrastructure Mapping

Kildare County Council, in partnership with the County Kildare Heritage Forum and the Heritage Council commissioned a series of Habitat Survey and Mapping projects for a number of towns in Kildare. An action of the County Kildare Heritage and Biodiversity Plan is to identify local important biodiversity areas. Such habitats are essential for preserving the biodiversity of an area and supporting its wildlife. In addition, there are a wide range of benefits to maintaining biodiversity areas such as provision of recreation and amenity areas, protection of soil and water quality, sustainable food and fuel production, flood alleviation and carbon sequestration. As a result, the importance of these habitats in Ireland is widely recognised and their significance should be fully appreciated.

5.0 Baseline Environment of Proposed Draft Leixlip LAP

5.1 Introduction

The purpose of this section is to describe the relevant aspects of the current state of the environment within the LAP area. The baseline has been compiled using available datasets and indicators suggested during scoping. It also focuses on mapping the relevant baseline information that relates to the policies and objectives contained within the Leixlip LAP.

This baseline information outlines the environmental context within which the Draft LAP will be implemented and identifies the following parameters:

- The key environmental baseline resources and sensitivities;
- The key environmental threats and trends; and
- The likely evolution of the environment in the absence of the Draft LAP.

The headings provided are in accordance with the legislative requirements of the SEA Directive. An emphasis is placed on the strategic elements of each aspect and where potentially relevant to the Draft LAP. The topics addressed are:

- Biodiversity
- Population
- Human Health
- Soil & Geology (incl. land use)
- Water
- Air Quality and Climate Change
- Material Assets
- Architectural, Archaeological and Cultural Heritage; and
- Landscape

** Human health is not considered directly in this report, but is instead dealt with through consideration of other environmental issues such as air quality, water quality etc.*

5.2 Biodiversity and Flora & Fauna

5.2.1 Designated Habitats

Biodiversity plays a significant role in the provision of clean air, water, healthy soils and food as well as a visually contributing to a plan area with its natural beauty and heritage. The location of the town at the confluence of the River Liffey and River Rye, and being encircled by the Royal Canal means water contributes significantly to the natural heritage of the town. The occurrence of natural vegetation adjacent to these water corridors also makes important contributions in terms of landscape character and ecology/biodiversity.

The Biodiversity of the plan area is not only valuable in terms of its intrinsic worth to the inhabitants of the area, it also plays a role in the provision of clean air and water, healthy soils, food, building materials and medicines.

Special Areas of Conservation (SACs) are legally protected under the EU Habitats Directive (92/43/EEC) and are selected for the conservation of Annex I habitats and Annex II species. There is one candidate Special Area of Conservation (cSAC) in the Leixlip LAP boundary area. This site is located on the Rye Water (a tributary of the River Liffey) which runs through the study area and is known as the Rye Water Valley/Carton. The main importance of the site lies in the presence of several rare and threatened plant and animal species and of the spring habitat.

Two proposed Natural Heritage Areas (pNHAs) are also located within the study area, the Royal Canal which flows from west to east through Leixlip and the Liffey Valley which is located on the south-eastern boundary of the study area as shown in Table 4.1 below.

There are no habitats in Kildare listed in the 2008 report from NPWS “The Status of EU Protected Habitats and Species in Ireland”. There are no SPA’s or proposed SPA’s in County Kildare.

Special Areas of Conservation (cSAC)	Site Code
Rye Water Valley/Carton SAC	0013898
Proposed Natural Heritage Areas	
Rye Water Valley/Carton.	0013898
Liffey Valley	000128
Royal Canal	002103

Table 4.1: Areas protected within the LAP Boundary.

A full list of the SAC and pNHA sites that are deemed to be within the zone of influence (c. 15km) of the plan area is provided in Table 4.2 and Table 4.3 below.

Special Areas of Conservation (SAC)	Site Code
Glenasmole Valley SAC	001209
Rye Water Valley/Carton SAC	001398
Wicklow Mountains SAC	002122

Table 4.2: SACs protected within the 15km of the LAP Boundary

Proposed Natural Heritage Areas (pNHA)	Site Code
Liffey Valley	000128
Santry Demesne	000178
North Dublin Bay	000206
Slade Of Saggart and Crooksling	000211
Dodder Valley	000991
Glenasmole Valley	001209
Lugmore Glen	001212
Kilteel Wood	001394
Rye Water Valley/Carton	001398
Royal Canal	002103
Grand Canal	002104

Table 4.3: Areas protected under EU and National Legislation

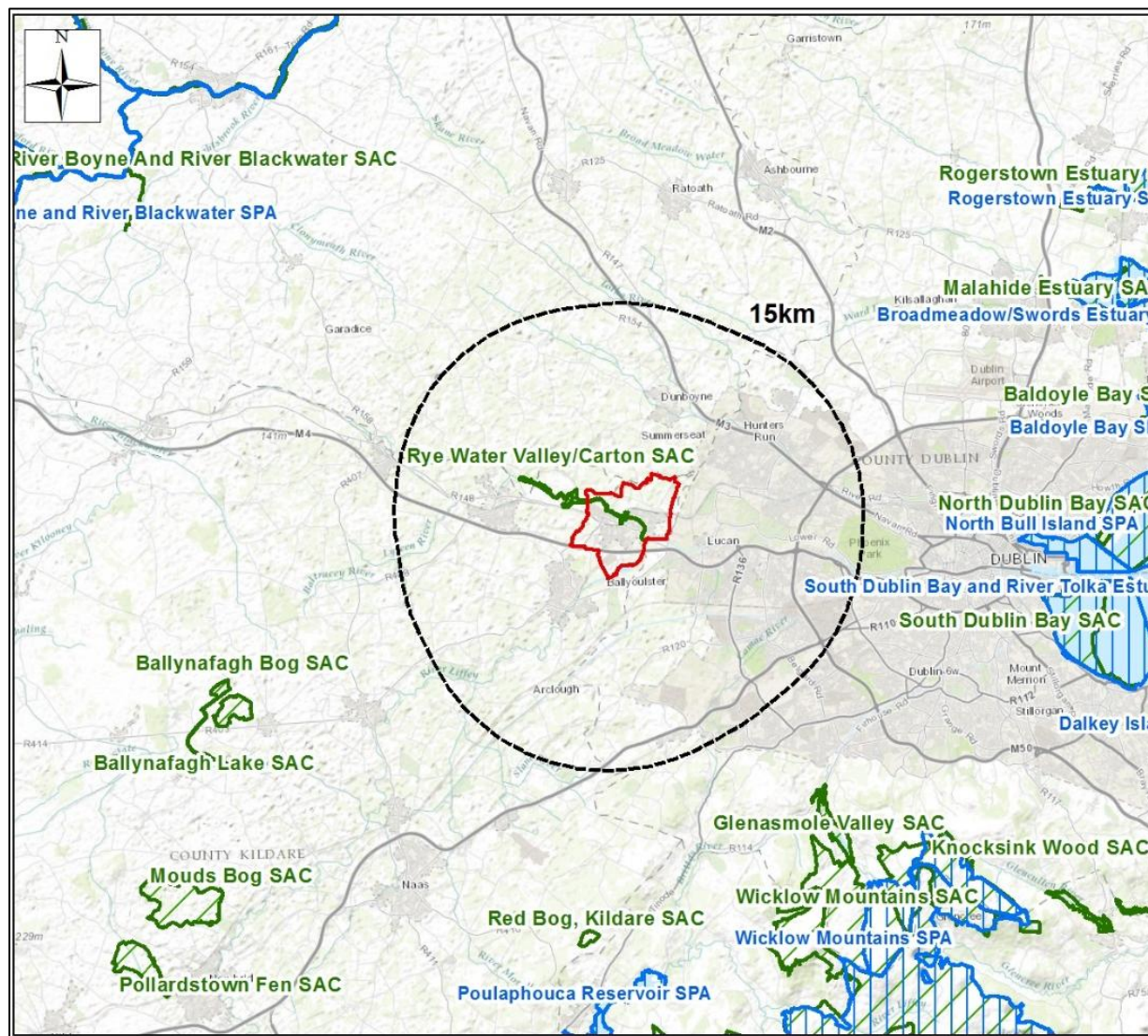
The threats and pressures on the integrity of European sites, as obtained from relevant published NPWS materials are displayed below. Threats and pressures relating specifically to the European site located within the Draft LAP boundary, namely the Rye Water Valley/Carton SAC, are presented below followed by generic threats and pressures specific to its qualifying interests. Those in **bold** would be regarded as potential consequences that arise from implementing a land use plan.

Threats and Pressures	
Site Specific Threats/pressures:	
Site Name:	Rye Water Valley/Carlton SAC
Site Code:	001398
Threats/Pressures	<ul style="list-style-type: none"> • Grazing • Fertilisation • Continuous Urbanisation • Modifying Structures of inland watercourses • Dispersed habitation • Sylviculture and forestry • Roads and Motorway • Removal of hedges and copses or scrub
Habitat Specific Threats/Pressures	
Habitat Name:	Petrifying Springs with tufa formation
Threats/Pressures:	<ul style="list-style-type: none"> • Landfill, land reclamation and drying out, general • Abandonment of pastoral systems, lack of grazing • Diffuse pollution to surface waters due to agricultural and forestry activities • Trampling, overuse • Roads and Motorways • Intensive grazing • Water abstractions for agriculture • Collapse of terrain, landslide • Intensive management of public parks/cleaning of beached • Missing or wrongly directed conservation measures • Continuous urbanisation • Outdoor sports and leisure activities • Artificial planting on open ground • Speleology • Invasive non-native species • Disposal of household/recreational facility waste • Other sport/leisure complexes • Groundwater pollution by leakage from waste disposal sites
Species Specific Threats/Pressures:	
Species Name:	Narrow-mouthed Whorl Snail
Threats/Pressures	<ul style="list-style-type: none"> • Intensive Grazing • Abandonment of pastoral systems, lack of grazing • Camping and caravans • Modification of hydrographic functioning, general • Paths, tracks, cycling tracks • Carparks and parking areas • Stock feeding • Intensive sheep grazing
Species Name:	Desmoulin's Whorl Snail (<i>Vertigo moulinsiana</i>)
	<ul style="list-style-type: none"> • Abandonment of pastoral systems, lack of grazing • Reclamation of land from sea, estuary or marsh • Species composition change (succession) • Infilling of ditches, dykes, ponds, polls, marshes or pits • Dredging/removal or limnic sediments • Management of aquatic and bank vegetation for

	drainage purposes <ul style="list-style-type: none"> • Landfill, land reclamation and drying out, general
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Table 4.4 Threats and Pressures

Figure 5.1 maps the European Sites within 15 kilometres of the Draft LAP boundary.

**Table 5.1 European Sites within 15 kilometres of the Draft LAP boundary**

The importance of these sites are fully recognised in the Plan and they will continue to be afforded protection through enforcement of current legislation and through the support of the local authority working in conjunction with other state/non-state organisations.

In addition to the cSAC and NHAs designated in Leixlip, Kildare County Council has identified additional areas of ecological importance to protect. There are many important wildlife habitats and while they may not merit national designation, these habitats are important in a local context and act as stepping-stones in a wider ecological network.

There are eight thermal springs of geological and scientific interest along the Kildare-Meath border which are collectively known as the Kildare-Meath group or the Enfield group of Springs. Two natural springs are located in Leixlip, namely, the Louisa Bridge Cold Spring and the Louisa Bridge Warm

Spring. In a geological site report, Kildare County Council found that the Louisa Bridge spring complex is worthy of County Geological Sites (CGS) status. Although CGS sites have no statutory protection, they can be promoted through county heritage and development plans.

5.2.2 Existing Biodiversity Issues

Biodiversity has become an integral part of the conservation of our wild areas. Ireland is one of 193 countries which are party to the Convention on Biological Diversity along with the other EU Member States and the EU itself. In its recent assessment, the Commission states that Europe is seeing the constant loss, degradation and fragmentation of natural habitats and entire ecosystems are also being pushed to the point of collapse.

Nationally, although significant progress has been made in the past decade, biodiversity loss has not been halted in Ireland. The status of many of our habitats and some of our species is judged to be poor or bad (Ireland's Second National Biodiversity Plan).

There are five main pressures causing biodiversity loss:

- habitat change
- overexploitation
- pollution
- invasive alien species
- climate change

The primary mechanism for conserving, protecting and enhancing biodiversity in Ireland is through the Actions for Biodiversity 2011-2016, Ireland's Second National Biodiversity Plan¹, of which a key concept is that local authorities (and other agencies) share responsibility for the conservation and sustainable use of biodiversity.

The Plan states that the principal target is: *"That biodiversity loss and degradation of ecosystems are reduced by 2016 and progress is made towards substantial recovery by 2020."*

It is European and national policy to protect designated areas from development thus ensuring their long term protection. Therefore restrictions must be provided within the plan and indeed close to such areas where such development is incompatible with the site's long term protection.

As stated previously, under the Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora) an Appropriate Assessment is required for all plans or projects which may impact on sites designated as either Special Areas of Conservation or Special Protection Areas. The Local Authority will be obliged to seek such an assessment where the need arises.

The Stage 2 AA Report has been prepared separately identifies of the types of threats to the integrity of the European sites. A small number of Objectives were revised as part of the AA process during their drafting to ensure that they adequately addressed the potential for adverse effects on the integrity of European Sites. whilst it was not possible to rule out adverse effects on integrity of European Sites at the strategic-level, in such cases it would be reasonable to apply AA at the lower levels of planning so that the project could be designed taking into account the potential for such effects in which case, mitigation measures could be applied.

¹ Actions for Biodiversity 2011-2016, Ireland's Second National Biodiversity Plan

5.2.3 Invasive Species

According to the National Biodiversity Data Centre, there are records of Curly leaved waterweed located within the northern section of the study area on both the Royal Canal and Rye Water. There are also records of Japanese Knotweed off Station Road in 2013. The records also include Grey Squirrel within the Study Area, near to the River Liffey and Lucan Demesne (2007). Other records of invasive species located within the Study Area are Canadian Waterweed (1989) and Jenkin's Spire Snail (2003). The nearest record of Himalayan Balsam is on the River Liffey c. 300m to the east of the Study Area. American Mink was recorded c. 650 m to the west of the Study Area, off the River Liffey in St. Catherine's Park. The invasive species Japanese Knotweed and Variegated yellow archangel were both noted along the Rye Water embankment walk between Ryevale Lawns and the river (opposite Confey Community College) during the surveys in 2014.

5.2.4 Green Infrastructure

Green Infrastructure planning is a proactive approach to the sustainable development of natural resources and biodiversity, and in particular, uses the multi-functionality of nature to maximise its benefits.

In general, the dominant environments within the Leixlip Study Area are improved grasslands (for agriculture) and urban, built land. For this reason, the green infrastructure here is extremely important to ensure that biodiversity levels are maintained, and that species are conserved and given the opportunity to increase their distribution within the town. There are a number of Key Green Infrastructure Areas in Leixlip. These are discussed below.

The River Liffey runs through the north-western section of the Study Area, this then connects into the Rye Water within the Leixlip Castle Demesne. The Royal Canal pNHA is also connected to these important watercourses, mainly via a dense strip of woodland in the northern Leixlip. These habitats are crucial for allowing the survival and dispersal of various aquatic and terrestrial species, as discussed throughout this report. An important network of hedgerows connects these habitats together. All of these habitats form important lines of connectivity from the north to the south of the town.

The Royal Canal runs parallel to the Railway Line in the northern half of Leixlip, allowing connectivity of both terrestrial and aquatic habitat. Hedgerow connectivity in this area is also particularly good (with high and moderate value hedgerows present). The railway line itself acts as an important Key Green Infrastructure habitat which provides relatively undisturbed areas of mature trees, scrub and hedgerows. There are also small areas of woodland where the verge is wider. These habitats also run parallel to the Royal Canal in the east of the town. Both of these linear corridors form important habitat networks from the east to west of Leixlip.

The woodlands, hedgerows, treelines, watercourses and extensive areas of grassland within the farmlands of Collinstown and Confey, in St. Catherine's Park, Leixlip Manor, Leixlip Castle Demesne, Barnhall and the surroundings of the commercial grounds of Intel and Hewlett Packard all provide excellent Green Infrastructure habitats which are interlinked and support widespread habitat connectivity across the Study Area.

These were considered to be the most important or 'Key' Green Infrastructure areas (as well as their associated habitats). They allow movement of both aquatic and terrestrial flora and fauna across the town. The expansive network of hedgerows and treelines, as well as numerous patches of scrub, are all other essential habitats that form part of the Green Infrastructure of this Study Area.

There are numerous 'Stepping Stone' habitats identified across the networks of Green Infrastructure that enhance the connectivity of habitats, and in turn, promote biodiversity across Leixlip, Confey and Collinstown e.g. the scattered trees and parkland as well as amenity areas within housing estates etc. The existence of these habitats are particularly useful for common garden species such as passerines and mammals such as hedgehogs which can be found occurring in these habitats which exist amongst the more developed areas.

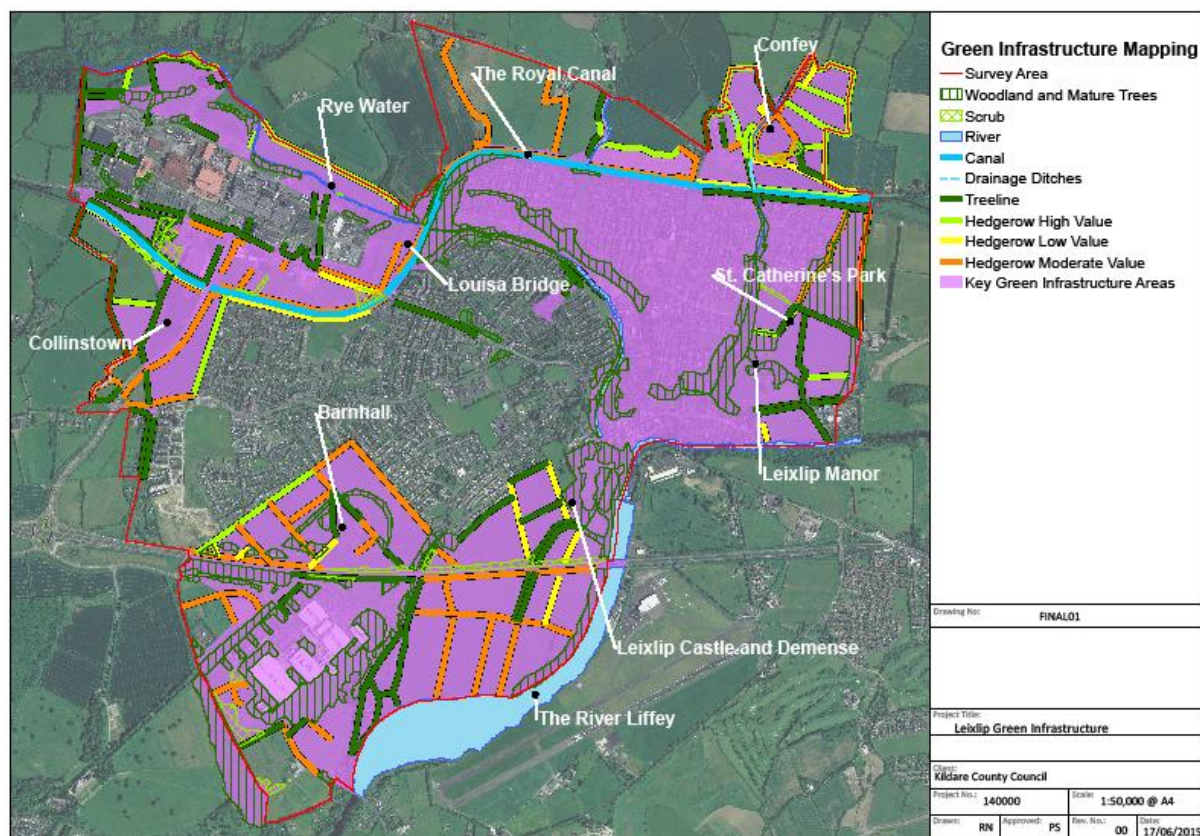


Figure 5.2: Leixlip Green Infrastructure

5.3 Population & Human Health

5.3.1 Introduction

This section discusses the impact of the Local Area Plan on the population of the plan area. An overview of the current and estimated future population and the issues affecting quality of life are discussed. Human health data for the area is not readily available. However, impacts on human health and quality of life may derive from any of the environmental parameters discussed throughout this Chapter. Ultimately, all of the effects of a development on the environment impact upon human beings and their quality of life, both positively and negatively. Direct effects relate to matters such as water and air quality, noise, and landscape change. Indirect effects relate to such matters as flora and fauna.

Accordingly, the topic of human beings and their quality of life is addressed in this Environmental Report by means of an appraisal of the indirect effects, etc. of the Local Area Plan on the other environment parameters, of which human beings and their quality of life are an integral part. Where appropriate, mitigation measures to reduce/avoid adverse impacts are identified and incorporated into this Report and the Plan under the other environmental parameters.

5.3.2 Population Trends

Leixlip recorded a population of 15,452 in the 2011 census. Preliminary results from the 2016 Census shows a population decrease of -3% in the Leixlip Electoral Division population. Table 5.1 below shows the population age profiles in Leixlip since the last decade. This show a relatively young population with 66.5% of the population being under 44 which was consistent with national figure for the same age bracket.

Age Bracket	2006 Population	% of Total Population 2006	2011 Population	% of Total Population 2011	National % 2011
0-14	2928	20%	3328	21.5%	21%
15-24	2851	19.4%	2131	14%	12%
25-44	4331	30%	4783	31%	32%
45-64	3862	26.3%	4018	26%	23%
65+	704	4.7%	1192	7.7%	12%
Total	14676	100%	15,452	100%	100%

Table 5.1 Actual Percentage and Population Growth.

5.3.3 Household Trends

The national trend is one of falling household size from an average of 3.14 persons per household in 1996 to 2.7 in 2011 (Census 2011). The Census in 2011 recorded a total of 5,103 households in Leixlip.

This housing stock is generally located to the south of the Royal Canal and to the north of the M4. The more established residential areas are located east and west of Captain's Hill and off the Celbridge Road (R149) and were built in the 1960's and 1970's. In more recent years residential development has occurred along Green Lane which has direct access on to the R449. Many of the housing estates are well established including those at Riverdale, River Forest, Ryevale Lawns, Dun Carraig, Oaklawn, Cedar Park and Castletown. Recent housing estates include Rinawade, Glen Easton and Lough na mona.

In 2011, 43.4% of households in Leixlip were composed of couples with children. This is higher than the state average of 35% for this household composition category. In contrast Leixlip household composition of one person households is 13.5% this is significantly less than the state average of 24% for this household category.

5.3.4 Settlement Strategy

The Draft LAP must seek to accommodate the demographic profile of Leixlip, its housing requirements and its position within Kildare and the Greater Dublin Area. Given Leixlip's proximity to Dublin and employment centres in the region, it is anticipated that that there will continue to be a strong demand for family housing in the LAP area. The need for smaller housing units and apartments should also be considered to contribute to the achievement of an appropriate housing mix.

In accordance with the *Sustainable Residential Development in Urban Areas, Guidelines for Planning Authorities*, DECHG (2009) and Section 4.5 of the *Kildare County Development Plan 2017 – 2023* higher densities should generally be considered in town centre infill locations and proximate to public transport, with medium to low densities being considered at outer suburban sites.

Within the agricultural zone in Leixlip, housing will be confined to people with a genuine housing need and who can demonstrate that they comply with the Rural Housing Policy of the County Development Plan

5.3.5 Community Facilities

Leixlip has a wide variety of existing community facilities and services and active community groups which provide an important support network to the residential population.

There are 6 no. primary schools and 2 no. secondary schools within Leixlip. The existing schools have capacity to cater for modest population growth within the lifetime of the LAP.

Early childhood education services are primarily delivered by the private sector within Leixlip. There is a variety of private childcare facilities including full day care facilities, sessional services, pre-school, crèche facilities, Montessori and after school facilities. The availability of good quality and accessible early childcare and education facilities is important to support the development of sustainable communities and to support economic development. Any childcare facilities which may be required over the plan period should be based on the capacity of existing facilities and/or the needs arising as a result of new residential developments within the LAP area.

The Draft Leixlip LAP area contains a number of existing healthcare facilities including medical centres, dental care facilities and a nursing home. This needs to be further strengthened to accommodate any projected population growth.

5.3.6 Radon & Human Health

Radon is a radioactive gas which is naturally produced in the ground from the uranium present in small quantities in all rocks and soils. Tiny radioactive particles are produced by the gas which when inhaled can cause lung cancer. The risk of contracting lung cancer as a result of Radon depends on how much Radon a person has been exposed to over a period of time. Radon levels in the County have been collated from the Radiological Protection Institute of Ireland. The plan area is in a mid-risk area in regards to Radon however a high radon level can be found in any home in any part of the country.

5.4 Soil and Geology

The upper most layer of the earth's surface is generally termed "Soil". It comprises for the most part organic matter, minerals and fine to course grained weathered rocks. The variability in the constituent parts and the percentage content of each in the soil matrix results in differing characteristics. This has implications for suitable land use and the appropriateness for differing land use practices.

Geology encompasses the understanding and study of the solid and liquid matter that constitutes the earth and the processes by which they are formed, moved and changed. Its understanding is necessary to fully appreciate the geological factors that shape and influence the world and its particular structure.

Soils within Leixlip Town Centre are 'urban' in nature due to disturbance resulting from its built environment. Surrounding of the town, soils are deep well drained mineral soils and comprise 'limestone till Carniferous' as well as River Alluvium a result of the Liffey Valley which meanders in an east west direction to the south of the town² and the Royal Canal to the north of the town Centre.

5.4.1 Soils

Soil can be defined as the top layer of the earth's surface. It consists of fine to coarse grained rock and mineral particles, organic matter (the remains of plants and animals) and the living organisms that reside in the soil. Subsoils comprise the soils lying directly under the surface soil.

The overburden geology of Kildare is described in 'Soils of County Kildare' (National Soil Survey of Ireland). The sub soil map of Kildare shows the area to lie on Limestone till Carniferous. The Aquifer is described as Locally Important Bedrock Aquifer which is moderately productive in local zones.

5.4.2 Geology

The Geological Survey of Ireland (GSI) provides information available on bedrock, subsoil, aquifer classifications and vulnerability. The landscape of Kildare principally reflects the erosional and depositional legacy of the last period of glaciation, which ended some 10,000 years ago following the Devensian period. Glacial erosion of pre-existing topographic features and deposition of glacial drift deposits, mainly till (boulder clay) resulted in a fairly typical post-glacial topography. The post-glacial landscape also reflects the effects of fluvial processes that have altered the topography, since the ice sheet retreat.

Kildare holds twenty geological sites of interest within its county. There is one listed geological sites within the Draft Leixlip LAP boundary. The Louisa Bridge Cold Spring is a cold spring formerly used as a spa and is characterised by a generally low flow rate.³

5.4.3 Geological Issues

The soil environment is a much overlooked aspect of the natural environment. However soils are an intrinsic part of the environment and perform a range of uses benefitting the wider environment. Soils have an economic value in terms of agricultural production, their type and quality dictating the type and intensity of production.

In addition, soils also have an ecological value, their status being a critical factor in determining botanical diversity and ultimately the range of fauna which feed upon or live within those species of plant life.

Changes in soil result from both natural processes and human activities which contribute to their dynamic and evolving nature. Such changes are matters of concern if they result in the physical, biological or chemical degradation of soils. This can result in the impairment of ecologically-essential soil processes, the reduction in productive capacity, the depletion of soil quality and biodiversity and the direct loss of soil. Many of the changes arise as a result of pressures from human activities.

² <http://gis.teagasc.ie/soils/map.php>

³ <http://dcenr.maps.arcgis.com/apps/webappviewer/index.html?id=b245c2bd11a64162a1632ad6bccf8e34&scale=0>

Urban environments have greatly changed in Ireland with the centres of population and towns being subjected to depopulation with growth focused on the periphery of these areas. With urban expansion, agricultural land surrounding towns and settlements as well as green areas within them are subjected to increasing pressures.

The type and depth of soil has direct implications on water movement which can lead to increased pollution threats if not properly considered.

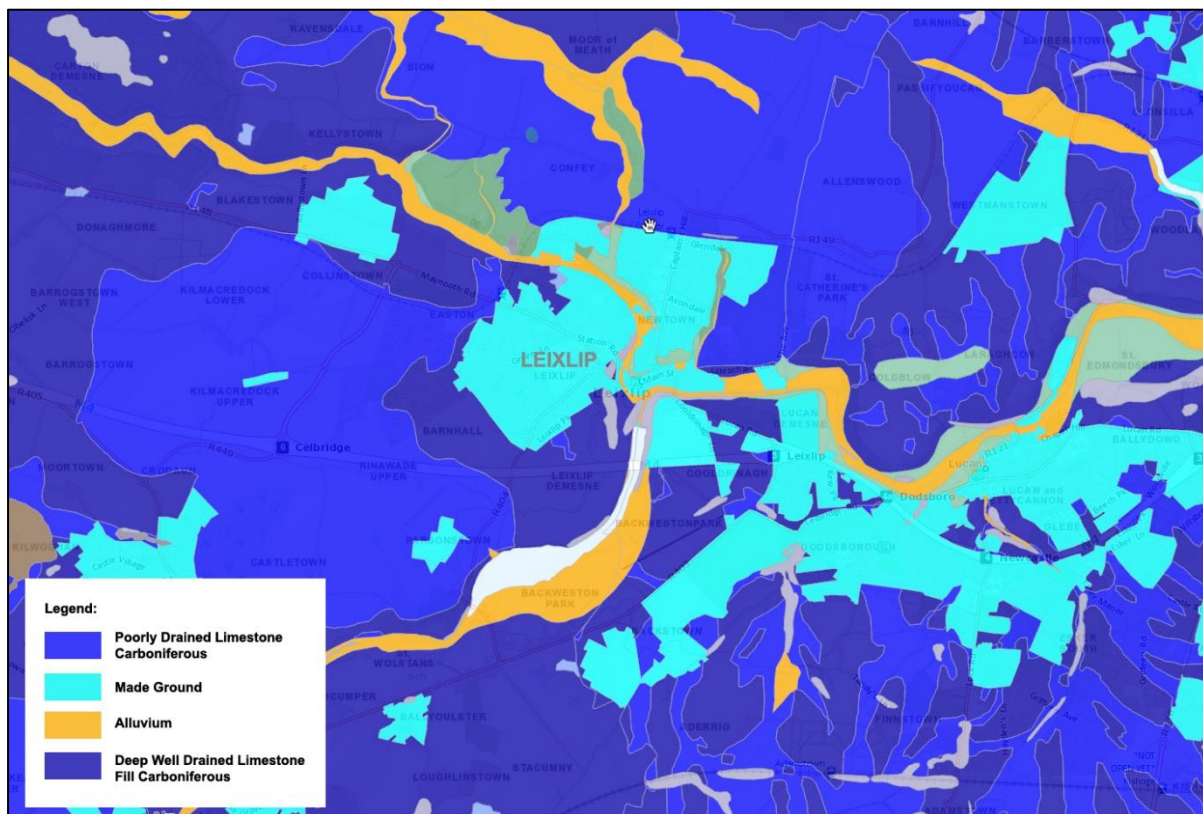


Figure 5.3: Soils Map for Draft Leixlip LAP

5.5 Water

5.5.1 Introduction

For the purposes of this section of the Environmental Report, the water environment is taken to include natural features such as lakes, rivers, streams and groundwater. In addition flooding is also dealt with in this section. Wastewater treatment and drinking water may be referred to in this section, but are discussed in more detail under the Material Assets section.

Water is fundamental to all life; for humans, plants and animals alike. It is also critical in economic terms in generating and sustaining wealth in a number of key areas such as agriculture, fishing, power generation, industry transport and tourism. However it is also a fragile resource requiring continued protection. In general terms Ireland's waters are of good quality, however preserving the high standard of water is essential for human health and the natural environment.

Since 2000, Water Management in the EU has been directed by the Water Framework Directive (WFD) 2000/60/EC which was transposed into Irish law under the European Communities (Water Policy) Regulations 2003 (S.I. No. 722/2003). This legislation requires governments to take a holistic

approach to managing all their water resources based on natural geographic boundaries, i.e. the river catchment or basin. The WFD establishes a common framework for the sustainable and integrated management of all waters covering groundwater, inland surface waters, transitional waters and coastal waters.

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. The management of water resources is divided into these River Basin Districts. The plan area is located in the Eastern River Basin District (ERBD).

A River Basin Management Plan (RBMP) for the Eastern River Basin District was prepared and adopted in 2010. The RBMP provides objectives for River Basin Districts in order to implement the requirements of the WFD.

5.5.2 Surface Water & Drainage

As the Biodiversity Section demonstrates, water quality has a clear interaction and impact with other key environmental parameters making its protection of key importance. Key challenges for the Draft Plan include avoiding the deterioration of water quality whilst delivering physical infrastructure to meet population growth. The SFRA outlines the following drainage requirements for Leixlip.

- Proposed development shall be drained on a completely separate system. All new developments must incorporate Sustainable Drainage Systems (SuDS). In the unlikely event of this not being feasible the Developer must provide alternative means of dealing with pollutants. Rainwater should be infiltrated to the ground and/or discharged via a SuDS system to a surface water drain or watercourse. Other effluent, including wastewater, shall discharge to the foul drainage systems.
- In general, watercourses are not to be culverted or piped. They should remain open in their natural valley, which should be incorporated into the public open space. Culverting should be confined to road crossings and should be sufficiently large to prevent blockage, allow runoff from a one in a hundred rain event and to allow for man entry for maintenance purposes.
- Permission must be obtained from the OPW (under a section 50 licence) to construct any culvert or bridge. All proposed structures must be set back from the edge of any watercourse to allow access for channel cleaning/maintenance. A 15 meters wide riparian buffer strip each side of the watercourse is recommended. In dense urban areas the width of the riparian buffer strip is to be agreed with KCC.
- All new development must allow for climate change as set out in the GSDSDS Technical Document, Volume 5, Climate Change River flows 20% increase in flows for all return periods up to 100 years Rainfall 10% increase intensity (factor all intensities by 1.1)
- Surface water outfalls to streams, rivers, etc. should be unobtrusive and not cause erosion of the bed and banks. A suitable non-return device should be fitted on the outfall pipeline. KCC must approve all design details.

Further requirements on Storm water management are also identified in the SFRA

5.5.3 Water Framework Directive

The Water Framework Directive (WFD) requires Member States to manage all of their waters and ensure that they achieve at least 'good status' by 2015 and beyond. The River Basin Management Plan affecting the plan area sets out the objectives and actions required to achieve at least 'good'

quality status for all waters, in the period 2009-2015 and thereafter. The ultimate deadline for Member States for achievement of 'good' status is 2027 at the latest. In line with requirements of the Eastern River Basin District River Basin Management Plans (ERBD RBMP) 2009 – 2015, ecological sampling by the EPA is carried out.

Based on EPA surveys, river waters are classed into four biological quality classes.

- A - Unpolluted (Good)
- B - Slightly polluted/eutrophic (Moderate)
- C - Moderately polluted (Poor) and
- D - Seriously polluted (Bad)

Leixlip is located within the Liffey and Dublin Bay Catchment and Liffey sub-catchment. With this sub-catchment, waterbodies have poor ecological status and are recognized as 'at risk' within the Water Framework Directive.

Leixlip is located within the Eastern River Basin District This Water Management Unit contains the Leixlip Liffey Reservoirs the Rye River and the River Liffey waterbodies. The status of surface water ranges from 'bad' to "Moderate" and the objective is to 'restore' and 'protect'⁴.

5.5.4 Groundwater

Groundwater aquifers form important sources of drinking water both locally and regionally. Much of the summer seasonal flow in many rivers is also derived from groundwater sources. To maintain high quality water resources within the Plan area, it is important that development is controlled and managed appropriately, in particular in areas of high groundwater vulnerability to avoid transmission of pollutants into important aquifers.

Groundwater in Leixlip ranges from moderately vulnerable to extremely vulnerable, therefore this plan must aim to protect groundwater from any further deterioration.

The OPW Preliminary Flood Risk Assessment (PFRA) carried out a national scale a Groundwater Flooding Report which concludes that ground water flooding is largely confined to the West Coast of Ireland due to the hydrogeology of the area. Therefore ground water flooding is not a significant risk for County Kildare but should still be examined at detailed FRA level particularly if the development includes proposals for basements.

5.5.5 Flooding and Flood Risk

The underlying causes of flooding, heavy rain and high sea levels are, essentially uncontrollable. However, the factors affecting the extent and severity of the flood can be addressed. The most influential of these factors is development, in particular development in flood plains i.e. areas adjacent to rivers that tend to become flooded following periods of heavy rain.

Leixlip is located in north County Kildare at the confluence of the Rye River and River Liffey. Flooding has been identified as a problem in Leixlip. In 2000 and 2002 Leixlip Main Street flooded. However, flood alleviation works have been undertaken in association with the Office of Public Works (OPW) including near Distillery Lane and Main Street.

⁴ http://watermaps.wfdireland.ie/NsShare_Web/Viewer.aspx?Site=NsShare&ReloadKey=True#

Flood risk can be defined as the probability of flooding multiplied by the consequences of flooding. In the 'Planning System and Flood Risk Management', the probability of a flood event taking place is recognised through the classification of Flood Zones which indicate a high, moderate or low risk of flooding from fluvial or tidal sources.

In line with The Planning System and Flood Risk Management Guidelines for Planning Authorities (2009), a Strategic Flood Risk Assessment (SFRA) of the Leixlip Plan area has informed the preparation of the Draft LAP. The SFRA has provided an assessment of all types of flood risk within Leixlip to assist Kildare County Council to make informed strategic land-use planning decisions. The flood risk information has enabled Kildare County Council to apply the Guidelines sequential approach, and where necessary the Justification Test, to appraise sites for development and identify how flood risk can be reduced as part of the development plan.

Leixlip is susceptible to several types of flood risk, including:

- Fluvial - Flooding occurs when a river overtops its banks due to a blockage in the channel or the channel capacity is exceeded.
- Pluvial - Flooding occurs when overland flow cannot infiltrate into the ground, when drainage systems exceed their capacity or are blocked and when and when the water cannot discharge due to a high water level in the receiving watercourse.

These types of flood risk act independently or in combination to cause flooding within the town LAP boundary.

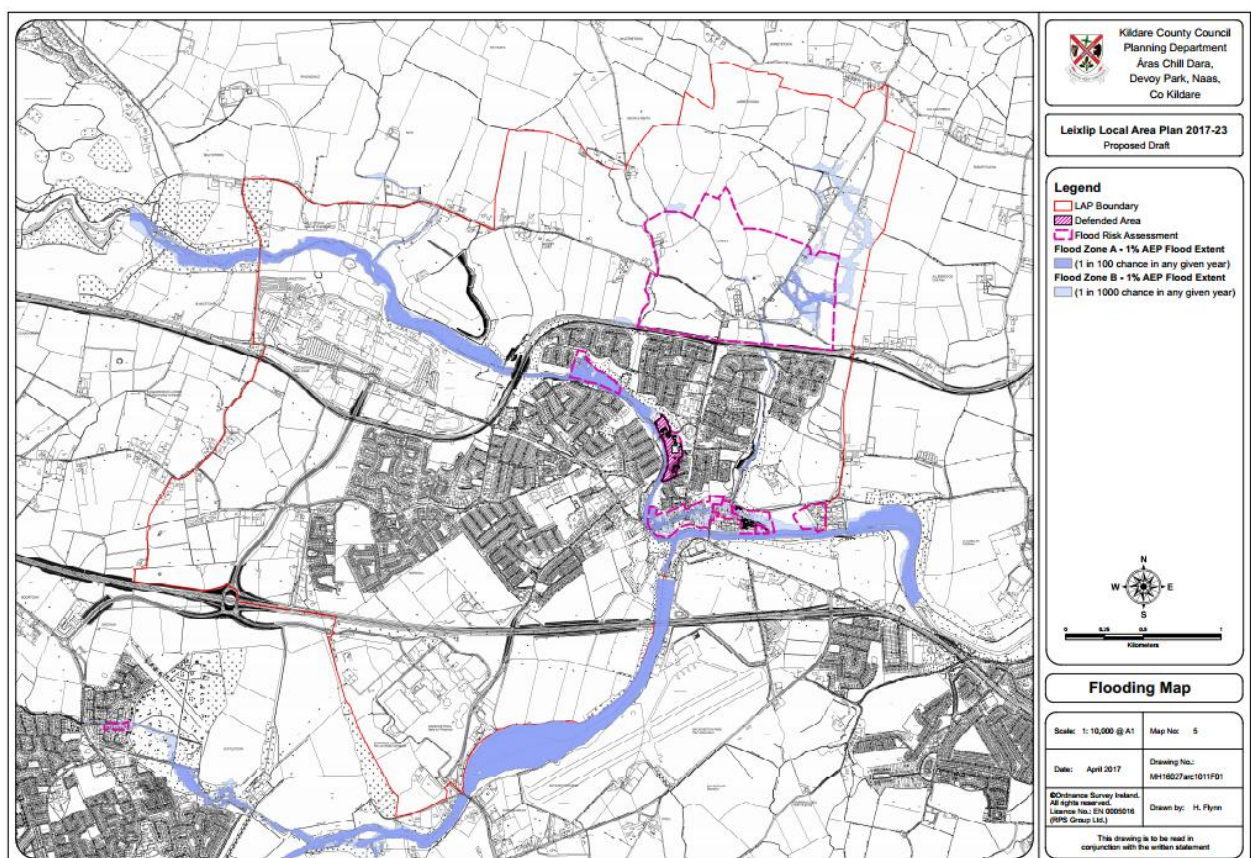


Figure 5.4 Leixlip Flood Zone Areas

Leixlip has been identified by the OPW as an Area for Further Assessment (AFA) within the Eastern Catchment Flood Risk Assessment Management (CFRAM) Study based on evidence from historical events and the extents of the flood risk determined during the OPW Preliminary Flood Risk Assessment (PFRA) Study. To counteract the known flood risk at Leixlip, river/stream improvement works were carried out between 2007 and 2010. The improvement works were designed to provide protection for 50 properties against a 1% Annual Exceedance Probability flood event from the Rye Water and Sillechain rivers. Works included:

- Channel and culvert upgrades along the Sillechain Stream at Mill Lane
- Construction of flood walls, flood embankments, upgraded bridges and the regrading of the river channel along the Rye Water

The Eastern CFRAM Flood Risk Management Plans (FRMP) are ongoing and if deemed necessary, flood risk management objectives, options and plans will be developed for the Leixlip. The draft Eastern CFRAM FRMP identified further flood defence works in Leixlip to protect against the 1% AEP event at locations along the Rye Water, including Confey Community College and Buckley's Lane / Main Street.

5.4.4 Existing Water Issues

The principal threat to water is pollution which can adversely impact on all parts of the water cycle from groundwater to rivers, lakes estuaries and coastal waters. In simple terms, pollution means the presence of a harmful substance such as a poisonous metal or pesticide, a nutrient or indeed silt.

There is an increased risk of flooding due to development, climate change and rainfall patterns. Development can exacerbate the problems of flooding by accelerating and increasing surface water runoff, altering watercourses and removing floodplain storage. It is now recognised that flood risk management must be treated as a central issue in the development of the area. Areas of floodplain and wetlands should therefore be recognised and preserved as natural defenses against flood risk.

Flooding of land from surface water runoff is usually caused by intense rainfall that may only last a few hours. Areas at risk from fluvial flooding will almost certainly be at risk from surface water flooding. Local flood events have occurred in Leixlip in recent times however the SFRA undertaken identifies such areas at risk from flooding and have been addressed in the Draft LAP zoning process.

The Planning System and Flood Risk Management guidelines recommends that a precautionary approach to climate change is adopted due to the level of uncertainty involved in the potential effects. Climate change may result in increased flood extents and therefore caution should be taken when zoning lands in transitional areas.

5.6 Air & Climate

5.5.1 Air Quality

Air quality monitoring in Ireland is undertaken largely to implement EC Directives. In 2008 the EC Directive 2008/50/EC on ambient air quality and cleaner air for Europe (the CAFE Directive) entered into force. This piece of legislation placed the previous air quality framework legislation into a single directive. It sets out air quality objectives and targets.

The Environmental Protection Agency is involved in air quality monitoring and has installed a number of air quality monitoring stations throughout Ireland. The EPA Report *Air Quality in Ireland 2015* provides an overview of the air quality in the country for 2015 based on data obtained from the 31 monitoring stations. The closest monitoring station for Leixlip is located in Celbridge. The latest report produced on Ambient Air Monitoring in Cellbridge was release in 2012 based on 2010-2011 monitoring data. During this time, no limit values were exceeded during the measurement period and concentrations of carbon monoxide, nitrogen dioxide and sulphur dioxide were below their respective lower assessment thresholds. The Town of Leixlip is primarily located within Zone C which comprises towns and cities with a population greater than 15,000.

5.5.2 Climate Change

Climate Change is a phenomenon that has widespread economic, health and safety, food production, security, and other dimensions. It is also widely recognised that Climate Change is occurring as a result of the build up of atmospheric Greenhouse Gases (GHG's) such as carbon dioxide. Most GHG emissions are related to the energy generation, transport, agriculture, and industry sectors.

Ireland's 2020 target is to achieve a 20% reduction of non-Emissions Trading Scheme (non-ETS) sector emissions (i.e. agriculture, transport, residential, commercial, non-energy intensive industry, and waste) on 2005 levels with annual binding limits set for each year over the period 2013-2021⁵.

With regard to overall emissions in Ireland, Agriculture is the single largest contributor, at 27.7% of the total, followed by Energy (power generation & oil refining) at 22.3% and Transport at 19.7%. The remaining 30% is made up by the Residential Sector at 10.4%, Industry and Commercial at 17.2%, and Waste at 2.6%.

Transport continues to be the dominant growth sector with emissions 682,000 tonnes higher in 2006 than in 2005. This represents a 5.2% increase on 2005 levels and 165% increase on the 1990 level of transport emissions. Road transport accounts for 97% of transport sector emissions. The increase in GHG emissions from the transport sector reflects sustained increases in fuel consumption with petrol usage up 3.4% and diesel consumption up 7.9% from the previous year.

5.5.3 Existing Air and Climate Issues

Road traffic has now become the greatest source of air pollution generally. In urban areas, concern has clearly shifted to a range of pollutants associated with this source which may be considered relatively new in the context of air quality control. The most important of these pollutants are NO₂, particulate matter less than 10 microns in diameter (PM₁₀), carbon monoxide (CO) and a wide variety of Volatile Organic Compounds (VOC), including carcinogens such as benzene. Advances in engine technology and fuel development will, it is predicted, offset any rise in tail pipe emissions from increased car usage due to an increased population. The context to the plan area is rural in nature where travel is an essential part of daily life. Therefore it is important that a good quality road infrastructure is provided and indeed alternatives to the private car are encouraged where possible.

The potential effects of climate change resulting in an increase in the frequency and severity of flooding events from rainfall must also be considered in the Draft Leixlip LAP. Severe rainfall events

⁵ Greenhouse Gas Emissions Projections to 2020 – An Update
http://www.epa.ie/pubs/reports/air/airemissions/2020_GHG_Projections_2016_Bulletin.pdf

as a result of climate change could adversely impact upon the Town's population, its biodiversity and its local economy.

5.6 Material Assets

Material assets can be defined as the critical infrastructure essential for the functioning of society such as: electricity generation and distribution; water supply; wastewater treatment; and transportation. Whilst this infrastructure is essential its usage can lead both directly and indirectly to adverse environmental impacts. This section will discuss the following:

1. Transportation (road and rail)
2. Waste Management
3. Water Supplies
4. Wastewater Treatment Infrastructure
5. Energy

5.6.1 Transportation

Transportation is an essential element to the functioning of the Irish economy and will continue to be promoted as a crucial component to the further sustainable development of the plan area. Nonetheless, the role of the Local Authority is somewhat limited with respect to the provision of transportation infrastructure. The National Roads Authority is directly responsible for the national road network, Iarnród Éireann is directly responsible for the rail network and Bus Éireann and other private operators are responsible for public bus services. The Local Authority will continue to liaise with the relevant authorities in enhancing service provision to the inhabitants of the Plan area.

The National Transport Authority (NTA) is a statutory body formed in 2009 with responsibility for securing the provision of public passenger land transport services; it also has responsibility for the development of an integrated transport system within the Greater Dublin Area (GDA). The NTA has produced a draft Strategic Transport Plan for the GDA up to the period of 2030. The Strategy establishes appropriate policies and transport measures that will support the GDA (including Co. Kildare) in meeting its potential as a competitive, sustainable city region. This strategy will form the top level of the hierarchy of transport plans for the Greater Dublin Area.

5.6.1.1 Road Network

Leixlip is located 15km from Dublin City Centre. The town is bypassed by the M4 motorway and accessed from grade-separated interchanges on the motorway at the eastern and western end of the town (junctions 5 and 6, respectively). The R148 runs through the Main Street linking Leixlip to Maynooth to the west. This also links with the N4 dual carriageway to the east of the town, which in turn provides access to Lucan, Dublin City Centre, and the M50. The R149 runs due north from Main Street, encompassing Captain's Hill and Cope Bridge (which operates on a one way signalised system). The route continues eastwards across the county boundary with Fingal before heading northwards to Barnhill, Hansfield, Ongar, Clonee and the M3. Vehicular circulation within the town is influenced by a number of pinch points including Pound Street (and Rye Bridge), Captain's Hill, Cope Bridge, Main Street (incl. Leixlip Bridge), with congestion and significant queue lengths evident at peak times.

The R449 links to the R148 and is the main access from the M4 to Intel's facility in Leixlip. It also serves Collinstown. The other major industrial facility in Leixlip is Hewlett Packard located on the

south side of the M4 which is accessed off junction 6 of the M4 via Barnhall Road and also the R404 (Celbridge Road).

The LAP acknowledges the importance of accessibility to the strategic road network for major industrial / employment generating facilities. It is also important for those already living in the town. The LAP identifies the potential for significant development to the north of the Royal Canal and Cope Bridge. Improved access to this area as part of the future development of the strategic road network will be required to facilitate such development. Improving vehicular circulation around the town will also provide additional route options which will enhance the attractiveness of the town centre.

5.6.1.2 Public Transport

Leixlip is located on the Dublin – Sligo rail line and is served by two rail stations, Confey and Louisa Bridge. Both stations are served by the ‘Arrow’ commuter rail service provided by Iarnrod Eireann.

The DART Expansion Programme is a key project in the delivery of an integrated rail transport network for the Dublin region. Of relevance to Leixlip, it includes the electrification of the Dublin-Sligo rail line from Connolly Station to Maynooth, together with the removal of level crossings and re-signalling. The design and planning stages of this project are expected to commence before 2021. The realisation of this project will allow for an increase in the number and frequency of train services on the Maynooth line and serving Leixlip.

Electrification of the rail line is likely to have design implications for Confey Station and the replacement of Cope Bridge may be required. The provision of a new bridge structure has wider implications for the town in terms of improved vehicular, pedestrian and cyclist provision and capacity. A Feasibility Study to improve permeability at Leixlip and a transportation assessment of Cope Bridge was carried out by Kildare County Council and the National Transport Authority. The preferred option arising from this assessment comprises the provision of a separate adjacent pedestrian bridge and cyclist bridge structure, the upgrade of existing Rye River walk via Distillery Bridge and the upgrade of the existing Rye River walk in the vicinity of the Glen.

Dublin Bus operates a number of routes linking Leixlip to Dublin City Centre. Direct routes include the 66a and the 66b. Other routes include the 66 (from Merrion Square to Maynooth) and 66x (from UCD Belfield to Leixlip/Maynooth). One Nightlink route operates Friday – Saturday (66n). There is no local shuttle link between Leixlip, Maynooth and Celbridge or an orbital service linking Leixlip to Blanchardstown, Tallaght and Liffey Valley.

5.6.1.3 Walking and Cycling

Leixlip has a well-developed pedestrian network. The quality of footpaths is generally good, with some notable deficiencies in continuity and the quality of off-road pedestrian routes in particular. The Town Centre would benefit from additional crossing points at either end of Main Street. The pedestrian environment at the junction of Main Street and Captain’s Hill could also be improved. The Council will continue to implement footpath improvements through its operations programme as resources allow and will prioritise busy routes and crossings.

There are a number of off-road pedestrian routes in / around the town - many of which follow the Rye Valley, Royal Canal, Silleachain Valley and within/around St Catherine’s Park. Some of these routes have been marketed as health trails. This includes 3 no. Slí na Sláinte walking routes in or

around the town (St. Catherine's Park Slí, Leixlip West, and Leixlip-Lucan Demesne); another links Leixlip to Celbridge (Celbridge Leixlip).

Existing cycleways in Leixlip include the grade separated cycle path linking Castletown and Leixlip along the R449. Other cycle facilities are along Station Road and sections of Green Lane (L5058) are immediately adjacent or incorporated into bus lanes. There are informal cycle routes to Lucan via St Catherine's Park; and to Castletown via Parsonstown.

5.6.2 Existing Transportation Issues

The more established residential areas in the town are located east and west of Captain's Hill and the R149 and people living in these areas must access the wider road network through the town centre or across Cope Bridge leading to congestion at these pinch points during peak times.

Overall permeability and connectivity of pedestrian and cycle routes between destinations and communities in the town is poor primarily because of the limited number of crossing points over the Rye Valley, Royal Canal and railway line. Pinch points such as Captain's Hill also restrict permeability and connectivity.

5.6.3 Waste Management

For the purposes of waste management planning, Ireland is now divided into three regions: Eastern-Midlands, Southern & Connacht-Ulster. The Eastern-Midlands Region includes the local authorities: Dublin City, Dún Laoghaire-Rathdown, Fingal, South Dublin, Kildare, Louth, Laois, Longford, Meath, Offaly, Westmeath and Wicklow.

The Eastern-Midlands Region (EMR) Waste Management Plan 2015-2021 provides a framework for the prevention and management of waste in a sustainable manner. Following a public consultation stage, the final Regional Waste Management Plan was made on 12th May 2015.

The three key objectives of the Eastern-Midlands Region Waste Management Plan are:

- Prevent waste: a reduction of one per cent per annum in the amount of household waste generated over the period of the plan;
- More recycling: increase the recycle rate of domestic and commercial waste from 40 to 50 per cent by 2020;
- Further reduce landfill: eliminate all unprocessed waste going to landfill from 2016.

Refuse collection in Leixlip is currently carried out by a number of private contractors and Kildare County Council operated recycling facilities for glass and cans are located at Lidl (Maynooth Road) and the Church of our Lady's Nativity (Station Road). The Draft LAP will continue to encourage recycling and the minimisation of waste through its environmental education programme and the Green-Schools programme.

5.6.4 Historic Landfill Sites

The EPA's LEMA (Licencing, Enforcement, Monitoring and Assessment) system identifies a historic landfill site (code S22-02403) within the Plan area. The EPA Code of Practice: Environmental Risk Assessment for Unregulated Waste Disposal Sites (April 2007) should be taken into consideration. Any potential future proposals for re-zoning/development of these lands (or adjacent to these lands) needs to be 'most appropriate to the potential sensitivities'. Where a landfill meet the definition of a

‘closed landfill’ as defined in the Waste Management (certification of historic unlicensed waste disposal and recovery activity) Regulations 2008 (S.I. SCP150301.3 EPA SEA Scoping Comments Prop. Leixlip (inc. Collinstown) LAP 2017-23 20.09.2016 2 No 524 of 2000), the Plan should refer to the requirement for authorisation of the landfill by the Agency under those regulations.

5.6.5 Water Supply

Irish Water is responsible for the provision of public water services (water supply and foul drainage) on a national basis. It is Irish Water’s objective to provide both drinking water and wastewater capacity to facilitate settlement / core strategies at county level, in line with national and regional planning policies and objectives, subject to the availability of funding and environmental and financial sustainability criteria. Kildare County Council retains its role in facilitating the provision of adequate water services, in conjunction with Irish Water, at a local level, through Service Level Agreements (SLAs).

Leixlip town is connected to the North Regional Water Supply scheme which is serviced by the Ballygoran Reservoir. The upgraded Fingal County Council Water Treatment Plant (WTP) in Leixlip provides the water supply for the town. The Leixlip WTP is the second largest in the Country and supplies 30% of the regions water.

5.6.6 Wastewater

The safe treatment and disposal of sewerage is fundamental to the sustainable development of our society. Leixlip forms part of the Lower Liffey Valley Regional Sewerage Scheme (LLVRSS) which also serves Celbridge, Maynooth, Kilcock and Straffan. The Leixlip Waste Water Treatment Plant (WwTP) is currently being upgraded to cater for an expanding population within the Lower Liffey Valley catchment and for locally-based commercial activities (including Intel). Upon completion, the capacity of Leixlip WwTP will be 150,000 population equivalent (PE). This capacity will not be sufficient to cater for the needs of the Lower Liffey Valley catchment.

5.6.7 Existing Wastewater Issues

While the upgrading of wastewater services planned for Celbridge may provide localised capacity in Leixlip, there will be insufficient capacity to facilitate planned growth.

Irish Water will be preparing a Drainage Area Plan (DAP) for the LLVRSS which will identify interventions that will be required in order to provide additional capacity in the catchment in the medium term and long term. Any works would need to be progressed in line with Irish Water Capital Investment Plans.

Looking further into the future and strategic regional solutions to the provision of wastewater infrastructure, a pumping station at Leixlip WwTP and rising main pipeline to the 9C sewer will be required to transfer excess flows from the Lower Liffey Valley catchment. A feasibility study of this project is currently underway, but it is dependent on the delivery of other major capital investment projects for the region.

5.6.8 Energy

Electricity is provided in Ireland through a national grid system which is made up of a network of high voltage (110,000 volts, 220,000 volts and 400,000 volts) transmission stations, power lines and cables. The system includes approximately 6,000 km of overhead lines and underground cables and

over 100 transmission stations. Power is generated by power plants throughout the country, utilising a variety of fuel or energy sources – including gas, oil, coal, peat, hydro-electricity, wind turbines and other sources including biomass and landfill gas.

There are high voltage transmission lines traversing existing residential and amenity land uses in Leixlip. They also traverse land intended for residential, enterprise and employment and recreation uses. The transmission lines are the double circuit Dunfirth – Kinnegad – Rinawade 100 kV line and associated T-offs serving Hewlett Packard and Intel. Upgrades to the transmission network to serve these major industrial connections are planned.

While the presence of the high voltage transmission lines in Kildare enables the county and Leixlip to be in a position to meet future electricity demands of customers, the concentration of such infrastructure to the west of the town has implications in terms of visual impact and land use compatibility.

Broadband is readily available in Leixlip. A number of telecoms providers have network infrastructure serving the area and provide various types of connectivity from fixed line to wireless and mobile broadband. There is an existing 30m communications mast located to the rear of Mill Lane.

5.7 Cultural Heritage, Archaeological and Archaeological Heritage

Cultural Heritage is an expression of the ways of living developed by a community and passed on from generation to generation, including customs, practices, places, objects, artistic expressions and values.

The National Monuments Acts 1930 – 2004 provide for the protection of archaeological heritage. The Record of Monuments and Places (RMP) was established under Section 12 of the National Monuments (Amendment) Act 1994 and structures, features, objects or sites listed in this Record are known as Recorded.

5.7.1 Architectural Heritage

The Kildare County Development Plan identifies a number of protected structures in Leixlip. The core aims of this LAP is to protect, conserve and manage the unique built heritage of the town and to encourage sensitive sustainable development so as to ensure its survival and maintenance for future generations. There are many buildings of Georgian character and historical significance in Leixlip with a handsome mid-eighteenth century mall and other Georgian buildings as well as many well situated big houses along the Liffey Valley. This built heritage has the potential to attract visitors and tourism to the area.

There are a significant number of Protected Structures located within the Main Street area of Leixlip, including Leixlip Castle at the western end of the town, Leixlip Boathouse at the confluence of the Liffey and Rye Water and the eight houses of the Mall, Main Street.

The estate farm complex of Barnhall House, the Wonderful Barn and the pigeon towers at Barnhall, built in 1743, is a very important built heritage asset in Leixlip. The dramatic form and visual landmark of the barn and pigeon houses, in particular, offer significant potential for sensitive adaptive re-use for tourism/amenity; however, with poor access from the Celbridge Road, poor links to the town, limited natural surveillance and no purpose it remains at risk to vandalism.

The following is an extract from the Kildare County Development Plan 2017-2023 as it relates to Protected Structures in Leixlip. In addition the RPS includes demesne lands and their associated components (such as follies and gatehouses), religious build stock, and building stock associated with the canals and the railway. Of this latter group Louisa Bridge, Leixlip Bridge, Cope Bridge, Deery Bridge, the Toll House (Leixlip Bridge), Leixlip Spa and Aqueduct are particularly noteworthy.

Table 5.1 Leixlip Record of Protected Structures

Reference (RPS No.)	NIAHRef	Item and Location	Description
B06-03		Confey Church Ruins	Church and Graveyard
B06-04		Tower of Confey Castle	Tower
B06-05		Knockmulrooney Tower in Confey Townland	Knockmulrooney Tower
B06-10		Confey Abbey	Abbey
B06-14	11900602	Deey Bridge and Lock 13, Royal Canal Main Line	Canal Bridge and Lock
B11-06		Kilmacredock Church Ruins	Church
B11-15	11901102	Wonderful Barn complex	Barn
B11-25	11804009	67 Main Street, Leixlip - Leinsterlodge	House
B11-28	11804077	Ralph Square (Off), Leixlip	House
B11-29	11804079	The Stables, Glebe House	House
B11-30	11804070	75 Mill Lane, Leixlip (No. 337????)	House
B11-31	11804040	Glebe House, Pound	House
B11-33	11804026	14 Main Street	House
B11-41	11804073	St Catherine's Park (Liffey Valley House Hotel)	House
B11-42	11804075	Leixlip House Hotel, Captain's Hill	House
B11-43	11804074	Newton Hill House	House
B11-44	11804076	Leixlip Bridge Toll House, Leixlip Bridge	House
B11-45	11804069	74 Mill Lane (or Street????)	House
B11-46	11804066	Black Castle, Mill Street	House
B11-48	11804029	French Estates/John Paul's, Main Street	House with shops
B11-49	11804021	Castle View House, 5 Main Street	House
B11-50	11804022	1 Main Street	House
B11-51	11804023	Ivy House, Main Street	House
B11-52	11804045	Leixlip Castle, Leixlip Demesne	Country House
B11-55	11804047	Leixlip Castle, Leixlip Demesne	Folly
B11-56	11804048	Leixlip Castle, Leixlip Demesne	Outbuilding
B11-57	11804052	Leixlip Castle, Leixlip Demesne	Outbuilding
B11-58	11804053	Leixlip Castle, Leixlip Demesne	Walls/gates/railings

Reference (RPS No.)	NIAHRef	Item and Location	Description
B11-59	11804054	Leixlip Castle, Leixlip Demesne	Walls/gates/railings
B11-60	11804055	Leixlip Castle, Leixlip Demesne	Garden Temple
B11-61	11804056	Leixlip Castle, Leixlip Demesne	Outbuilding
B11-62	11804057	Leixlip Castle Demesne	Outbuilding
B11-63	11804058	Leixlip Castle Demesne	Dovecote (former)
B11-64	11804059	Leixlip Castle Demesne	Outbuilding
B11-65	11804060	Leixlip Castle Demesne	Outbuilding
B11-66	11804061	Leixlip Castle Demesne	House
B11-67	11804062	Leixlip Castle Demesne	Garden Structure (misc.)
B11-68	11804064	Leixlip Castle Demesne	Boat house (former)
B11-69	11804065	Leixlip Castle Demesne	Garden Structure (misc.)
B11-70	11804001	1 The Mall, Main Street	House
B11-71	11804002	2 The Mall, Main Street	House
B11-72	11804003	3 The Mall, Main Street	House
B11-73	11804004	4 The Mall, Main Street	Office
B11-74	11804005	5 The Mall, Main Street	Office
B11-75	11804006	6 The Mall, Main Street	Office
B11-76	11804007	7 The Mall, Main Street	Office
B11-77	11804008	8 The Mall, Main Street	House
B11-78	11804009	Main Street, Leixlip - Leinsterlodge	House
B11-79	11804017	Saint Mary's Church, Main Street	Church
B11-80	11804024	Classic Combination Mini Mart, Main Street	Shop
B11-81	11804025	Main Street	House
B11-82	11804033	Catholic Church of Our Lady's Nativity, Pound St	Church
B11-83	11804078	Leixlip Bridge	Bridge
B11-113	11901101	Leixlip Gate, Barnhall	Walls/gates/railings
B11-115		Ryevale House. Leixlip	House
B11-116		Marshfield House, Mill Lane, Leixlip	House
B11-117		Collinstown House, Collinstown	House
B11-122	11804041	Leixlip Castle	Walls/gates/railings
B11-123	11804046	Leixlip Castle	House

The morphology of the Leixlip town has changed little over time with the majority of buildings located along Mill Street / Main Street dating from the latter part of the eighteenth century and having historical relevance. Therefore, the Kildare CDP proposes to designate Leixlip Main Street as

an Architectural Conservation Area. This will require any development to be consistent with the appearance of neighbouring structures.

5.7.2 Archaeological Heritage

The archaeological heritage of an area includes structures, constructions, groups of buildings, developed sites, moveable objects, monuments of other types as well as their context, whether situated on or under land or water.

The National Monuments Acts 1930 – 2004 provide for the protection of archaeological heritage. The Record of Monuments and Places (RMP) was established under Section 12 of the National Monuments (Amendment) Act 1994 and structures, features, objects or sites listed in this Record are known as Recorded.

Leixlip began as a Viking settlement which evolved around the confluence of the River Liffey and its tributary Rye Water. Zones of archaeological potential have been identified at Oaklawn, Riverdale, Confey, Main Street and beside the River Liffey to the south of Leixlip. This is exhibited alongside records of protected structures and records of monuments and place in Map 5.5 of Leixlip Centre below.

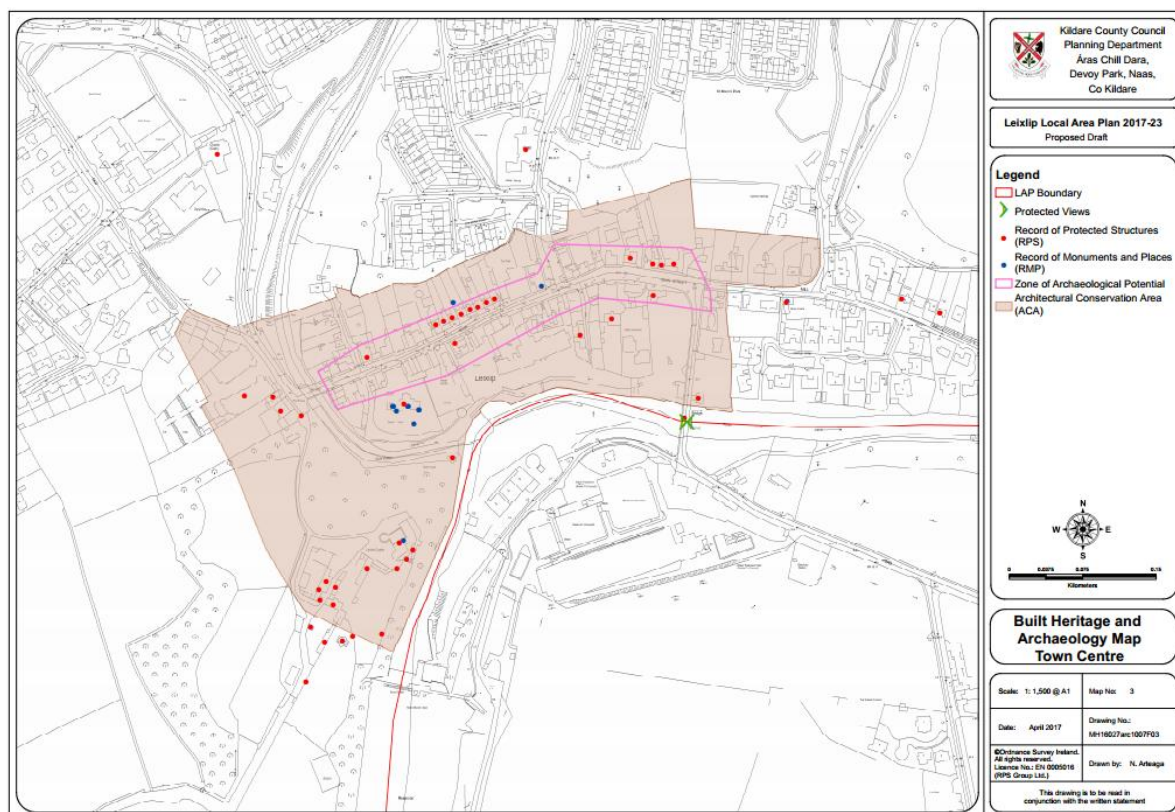


Figure 5.5: Zone of Archaeological Potential Town Centre

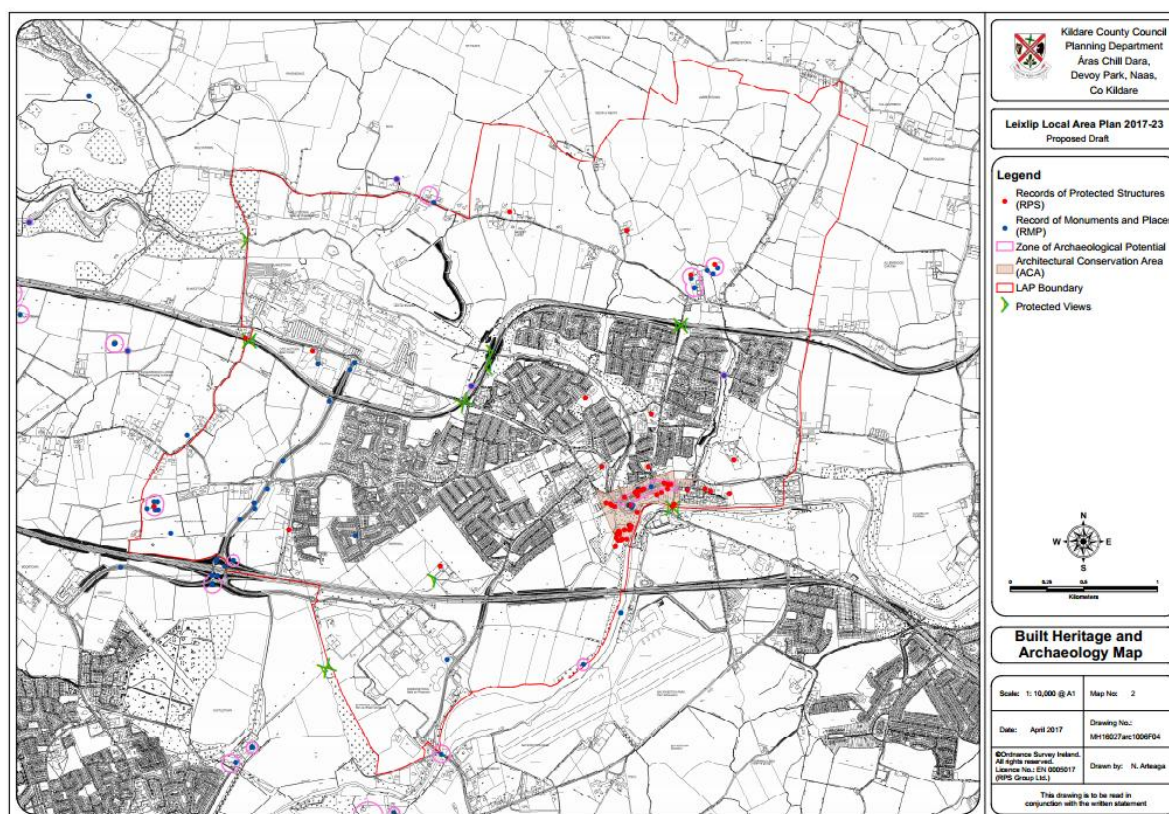


Figure 5.6: Zones of Archaeological Potential within LAP

Developments located within the Zone of Archaeological Potential and / or close to known archaeological monuments or sites, including site works that are extensive in terms of area (ground disturbance of half an hectare or more) or length (1 kilometre or more) and developments that require an Environmental Impact Statement will be required as part of the planning application process, or by condition of permission, to carry out archaeological assessment, monitoring, testing or excavation within the area either prior to the planning decision or prior to any development proceeding on site. The Council, as a condition on such developments, may consider the preservation of all or part of the archaeological remains in the area covered by that permission.

The Sites and Monuments records (SMR) lists archaeological sites and monuments dating before 1700AD.

Table 5.2 Sites and Monuments Record

SMR Reference	Item	Location
DU017-087----	Bridge	BACKWESTONPARK
DU017-014----	Weir - fish	BACKWESTONPARK
KD011-001--	Redundant record	KILMACREDOCK LOWER
KD011-002001-	Ecclesiastical enclosure	KILMACREDOCK UPPER
KD011-002002-	Road - road/trackway	KILMACREDOCK UPPER
KD011-002003-	Church	KILMACREDOCK UPPER
KD011-003001-	Ritual site - holy well	NEWTOWN (Leixlip ED)
KD011-004001-	Historic town	LEIXLIP,LEIXLIP

SMR Reference	Item	Location
		DEMESNE,NEWTOWN (Leixlip ED), ST. CATHERINES PARK
KD011-007---	Ritual site - holy well	LEIXLIP
KD011-004002-	Castle - Anglo-Norman masonry castle	LEIXLIP
KD011-004003-	Church	LEIXLIP
KD011-004004-	Graveyard	LEIXLIP
KD011-004005-	Castle - tower house	LEIXLIP
KD011-017----	Bridge	LEIXLIP DEMESNE
KD011-018----	Mound	LEIXLIP DEMESNE
KD011-031----	Redundant record	BARNHALL
KD011-032----	Field system	KILMACREDOCK UPPER
KD006-001----	Ritual site - holy well	SION
KD006-002----	Castle - unclassified	CONFHEY
KD006-00301--	Church	CONFHEY
KD006-004--	Castle - tower house	CONFHEY
KD011-054---	Habitation site	COLLINSTOWN (Leixlip ED)
KD011-044----	Habitation site	KILMACREDOCK UPPER
KD011-058---	Habitation site	KILMACREDOCK UPPER
KD011-045---	Burnt mound	KILMACREDOCK UPPER
KD011-046----	Fulacht fia	KILMACREDOCK UPPER
KD011-047----	Burnt mound	KILMACREDOCK UPPER
KD011-048----	Habitation site	KILMACREDOCK UPPER
KD011-049---	Burnt mound	KILMACREDOCK UPPER
KD011-050----	Kiln - corn-drying	KILMACREDOCK UPPER
KD011-054---	Habitation site	COLLINSTOWN (Leixlip ED)
KD011-053---	Fulacht fia	EASTON
KD011-055---	Excavation - miscellaneous	COLLINSTOWN (Leixlip ED)
KD011-056--	Kiln	COLLINSTOWN (Leixlip ED)
KD011-043--	Habitation site	KILMACREDOCK UPPER
KD011-059----	Metalworking site	KILMACREDOCK UPPER
KD006-00301--	Graveyard	CONFHEY
KD011-011----	Bridge	CONEYBURROW (Donaghcumper ED),PARSONSTOWN (Celbridge ED),ST. WOLSTANS
KD011-00202	Graveyard	KILMACREDOCK UPPER
KD011-004009	Graveslab	LEIXLIP
KD011-004008-	Wall monument	LEIXLIP
KD011-004007	Habitation site	LEIXLIP
KD011-004006-	Graveslab	LEIXLIP

SMR Reference	Item	Location
KD011-017001-	Weir - fish	LEIXLIP DEMESNE
KD006-017--	Field system	CONFHEY
KD006-018----	Redundant record	CONFHEY
KD011-002--	Ecclesiastical site	KILMACREDOCK UPPER
KD011-042002-	Enclosure	CASTLETOWN
KD011-004010-	Graveslab	LEIXLIP
KD011-004011-	Font	LEIXLIP
KD011-004014-	Stone head	LEIXLIP
KD011-004013	Stone head	LEIXLIP
KD011-004014	Stone head	LEIXLIP
KD011-062----	Fulacht fia	PARSONSTOWN (Celbridge ED)

5.8 Landscape

5.8.1 Introduction

The concept of landscape encompasses all that can be seen by looking across an area of land, i.e. it is the visible environment in its entirety. Landscape is the context in which all change takes place and helps to create a unique sense of place or identity within an area. The landscape supports a wide range of ecological habitats despite the rapid growth in its resident population. It is the interaction of all of these elements that influences landscape character for future generations.

Kildare is an inland county. Local landscapes, including features such as rivers, streams, ponds, lakes, turloughs, woodlands, hedgerows and field boundaries, make a considerable contribution to the amenity and local distinctiveness of both urban and rural landscapes.

5.8.2 Landscape Character Types

Trees, woodlands and hedgerows make a valuable contribution to the landscape and visual amenity of Leixlip. Trees perform many functions particularly in urban settings such as providing shelter, absorbing pollutants, habitats and food source for wildlife, combating climate change by absorbing surface water faster than grasslands.

There is good provision of amenity lands and open space within Leixlip including:

- St Catherine's Park, neighbourhood parks, local parks and numerous amenity greenspaces adjacent to residential areas. Areas of land zoned as open space on the edges of the town.
- Formal sports amenity areas (Leixlip Amenity Centre, various GAA/Soccer grounds)
- Linear watercourse amenities and associated habitats– including the River Liffey, the River Rye and the Royal Canal towpath.
- Amenity lands scheduled for further development (The Wonderful Barn and Lough na Mona);

These spaces provide habitats for ecological purposes, a focal point for active and passive recreation, promote community interaction and help mitigate the impacts of climate change. These also contribute to a high quality of life for those living, working and visiting the town.

The landscaping planning context is considered under the Kildare County Development Plan 2017 – 2023; the National Inventory of Architectural Heritage (Historic Gardens and Designed Landscapes) and the National Inventory of Outstanding Landscapes of Ireland. Landscape, Recreation and Amenities are considered under Chapter 14 of the Development Plan and also includes the Landscape Character Assessment (LCA) of the County (2004). The landscape of the county has been divided into 15 LCAs.

The LAP area is located within the large LCA of the ‘Northern Lowlands’, which typifies the landscape of much of the northeast of the county. The Development Plan identifies that the ‘Northern Lowlands- Naas and Environs’ is of low sensitivity and are robust landscapes which are tolerant to change, and which have the ability to accommodate development pressure.

Lands directly north and east of Leixlip hold a number of protected views and prospects in addition to the Scenic Route within Carton Demesne Walls which contains views to and from Carton House, the Lake and Woodland Areas.

Views as prospects in Leixlip and its immediate environs are as follows:

- Newbridge Coney Burrow
- Celbridge Bridge
- Sandfords Bridge Carton Demesne
- Black Bridge Kellytown
- Carton Bridge Demesne
- Leixlip Bridge

The various definition of landscape acknowledge the interaction between people and nature and the changing nature of landscape. The concepts of protecting the significant features of landscape while managing change within landscape are considered to be a key element for the Local Area Plan.

5.8.3 Existing Environmental Issues

Landscape Character Assessments identify that significant uncontrolled population growth is a threat to landscapes and historic settlement structures. Modern unsympathetic development is also a threat to the landscape quality.

Urban areas particularly within commuting distance of the capital have grown rapidly which has eroded the essential character of these towns. Generally, the volume of large development within these towns is not in keeping with their character and many settlements have grown at a rate that the historic centres have become detached from the majority of their populations and the relationship between urban areas and landscape setting has been largely lost.

5.9 Interactions

The environment is both complex and dynamic and the various elements of the environment interact in an equally complex and dynamic manner. The permutations can be numerous; however at a simplistic level the principal interactions can be either qualified or quantified in most instances.

These interactions can be either benign or unfavourable; can be either proportionate or synergistic; can be short lived or permanent. In addition an event, an individual action or an ongoing activity can

have an effect on one or more aspects of the environment. This effect may differ in magnitude, type and duration across several different aspects of the environment.

For example the potential exists for discharges of treated effluent from wastewater plants to surface water systems to impact negatively on water quality. Similarly the use of septic tanks can impact negatively on the quality of ground water resources if working inefficiently or inappropriately sited. This report has attempted to deal with the issues at a ‘root’ level thereby diminishing the necessity to discuss further the possible and numerous interactions between the various environmental receptors.

This environmental report has approached each of the environmental receptors on an individual basis though it is fully cognisant of the relationship between the various elements. The report has therefore attempted to present the data in such a way as to indicate fully the potential for impacts on other aspects of the environment where they may occur or indeed are likely to occur.

To highlight the extent of the relationship between the various elements of the environment the matrix presented in Table 14 provides an indication of the interactions present between environmental receptors.

To highlight the extent of the relationship between the various elements of the environment the matrix presented in Table 8.1 provides an indication of the interactions present between environmental receptors. Categories highlighted in blue identify where interactions between environmental receptors occur.

The significant aspect of the matrix (is the relationship between human beings and all aspects of the environment. There are three simple conclusions to be drawn from the matrix; people benefit most from a high quality environment; people are collectively responsible for the adverse impacts that can occur; and people are most seriously affected by deterioration in environmental quality.

Table 5.2 Interrelationship between Environmental Receptors

		Biodiversity - Flora and Fauna	Human Beings - Population	Human Beings - Health	Soil and Geology	Water	Landscape and Visual Issues	Material Assets - Transportation	Material Assets - Other	Cultural Heritage	Air Quality	Noise
Is this aspect of the environment likely to interact with other aspects of the environment?	Biodiversity - Flora and Fauna											
	Human Beings - Population											
	Human Beings - Health											
	Soils and Geology											
	Water											

	Landscape and Visual Issues	Blue	Blue		Blue	Blue	Grey				
	Material Assets - Transportation	Blue	Blue	Blue	Blue	Blue	Blue	Grey			
	Material Assets - Other	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Grey		
	Cultural Heritage	Blue	Blue		Blue		Blue	Blue	Blue	Grey	
	Air Quality	Blue	Blue	Blue	Blue			Blue	Blue	Blue	Grey
	Noise	Blue	Blue	Blue			Blue	Blue	Blue	Blue	Grey

6.0 Strategic Environmental Objectives

6.1 Introduction

The primary objective of the SEA is to provide for a high level of environmental protection and to contribute to the integration of environmental considerations into the preparation and adoption of the Leixlip Local Area Plan 2017-2023

Article 5 of the SEA Directive requires the identification of environmental protection objectives. These Strategic Environmental Objectives (SEOs) assist in the prediction, description and monitoring of impacts on the environment as a result of the Local Area Plan. Indicators allow impacts to be assessed and highlighted in a simple and effective manner. Indicators can also be used to form the basis of a monitoring programme for the Plan, (outlined in Chapter 10 of this Environmental Report) the results of which will inform the next Plan Review and other studies.

Thus to achieve the aim of assessing and improving the environmental performance of the Draft Local Area Plan, a number of Environmental Objectives, specific to each environmental topic have been formulated, see Table 15. These SEOs are a fundamental part of the SEA process. The Objectives are derived through consultation between the Planning Authority, the report authors (guided by SEA guidelines, incorporating where relevant international, national and regional policies which govern environmental protection/conservation) and are based on the overall strategy of the Planning Authority to safeguard the environmental integrity of the Local Area Plan area and to develop its functional area in a sustainable manner.

SEOs are distinct from the objectives and policies contained in the plan, though the process of preparing the Draft Local Area Plan in conjunction with the SEA allows for the incorporation of environmental themes at an early stage of the process. The Environmental Objectives are used to assess the proposed development strategies of the Draft Local Area Plan, its policies and objectives, in order to evaluate and identify where conflicts may occur. The assessment is contained in Chapter 8.

Allied to the development of the Strategic Environmental Objectives are Environmental Indicators and targets. Indicators facilitate the monitoring aspect of the SEA, while targets provide a realistic and achievable target to which the Local Authority can work towards. The indicators are discussed in more detail in Chapter 10.

Table 6.1: Strategic Environmental Objectives for the Draft Leixlip LAP 2017-2023

Draft Objectives	Draft SEA Indicator	Draft Targets
Biodiversity including Flora and Fauna		
<p>B1: Conserve and protect the diversity of habitats and species by limiting adverse impacts on habitats and species of conservation concern.</p>	<ul style="list-style-type: none"> • Number and extent of Protected Sites • Areas actively managed for conservation • Population and range of Protected Species • Achievement of the Objectives of Biodiversity Plans 	<ul style="list-style-type: none"> • Promote siting of new development on non-sensitive sites. • Improve/conservate and protect all designated sites and species within and adjacent to the Plan area • Deliver the requirement of the Habitats Directive (Article 4, Paragraph 4) for the maintenance or restoration of annexed habitats and species within SACs at a “favourable conservation status. • Promote the maintenance and, as appropriate, achievement of favourable conservation status of habitats and species, in association with the NPWS and other stakeholders. • Protect SPAs, Annex I bird species, and regularly occurring migratory bird species and their habitats, and avoid pollution or deterioration of important bird habitats outside SPAs. • Improve the ecological coherence of Natura 2000 by encouraging the management of, maintaining, and where appropriate developing, features of the landscape which are of major importance for wild fauna and flora. Such features are those which, by virtue of their linear and continuous structure (such as rivers with their banks or the traditional systems for marking field boundaries) or their function as stepping stones (such as ponds or small woods), are essential for the migration, dispersal and genetic exchange of wild species

Draft Objectives	Draft SEA Indicator	Draft Targets
		<ul style="list-style-type: none"> • Protect NHAs, National Parks, Nature Reserves, Wildfowl Sanctuaries, Refuges for Fauna or Flora and sites proposed for designation. • Improve/maintain protection for important wildlife sites, particularly urban wildlife corridors and linear and stepping stone features for migration, dispersal and exchange of wildlife • Improve access for the appreciation and promotion of wildlife • Maintain/Conserve rare and protected plants such as those found along the Liffey Valley and St. Catherines Woods.
Population and Human Health		
<p>P1: Improve people's quality of life based on high-quality residential, working and recreational environments and on sustainable travel patterns.</p>	<ul style="list-style-type: none"> • Census population data • Rates of Unemployment per area • % increase in housing (number and type) 	<ul style="list-style-type: none"> • Minimise population exposure to high levels of noise, vibration and air pollution • Increase modal shift to public transport • Co-ordinate land use and transportation policies • Improve access to recreation opportunities
Soils & Geology		
<p>S1: Protect quality and quantity of existing soil and geology.</p>	<ul style="list-style-type: none"> • Rates of re-use / recycling of construction waste • Rates of cement / concrete production • Rates of brownfield site and contaminated land reuse and development • Rates of greenfield development 	<ul style="list-style-type: none"> • Prevent pollution of soil through adoption of appropriate environmental protection procedures during construction and maintenance works on site. • Ensure polluting substances are appropriately stored and banded. • Ensure appropriate management of existing contaminated soil in accordance with the requirements of current waste legislation. • Re-use of brownfield lands,

Draft Objectives	Draft SEA Indicator	Draft Targets
		<p>rather than developing Greenfield lands, where possible.</p> <ul style="list-style-type: none"> Minimise the consumption of non-renewable sand, gravel and rock deposits.
Water Resources		
<p>W1: Improve/maintain and protect 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.</p>	<ul style="list-style-type: none"> Compliance of potable water sources to water quality regulations Compliance of surface waters with national and international standards Potable and wastewater treatment capacities versus population % of wastewater achieving tertiary treatment Achievement of the Objectives of the River Basin Management Plans Amount of new developments within flood plains Annual costs of damage related to flood events 	<ul style="list-style-type: none"> Support the achievement of “good” ecological and chemical status/potential of waterbodies in accordance with the Water Framework Directive. Minimise flood risk through appropriate management of flood vulnerable zones. Promote sustainable drainage practices to improve water quality and flow.
Air, Noise & Climate		
<p>A1: Maintain and promote continuing environmental improvement where possible of emissions to air (including noise emissions).</p>	<ul style="list-style-type: none"> Traffic, Transport and Vehicular survey data National and region specific emission data Compliance with national standards Reduction in greenhouse gas emissions Number and extent of emission licensed facilities Number of energy / renewable energy production facilities Rates of energy / renewable energy consumption 	<ul style="list-style-type: none"> Minimise air and noise emissions during construction and operation of new developments. Promote minimisation of greenhouse gas emissions to the atmosphere Limiting and adapting to climate change

Draft Objectives	Draft SEA Indicator	Draft Targets
Archaeological, Architectural and Cultural Heritage		
C1: Promote the protection and conservation of the archaeological, architectural and cultural heritage	<ul style="list-style-type: none"> • Updating of inventories to include new sites / features • Achieving the objectives of development plans regarding heritage protection • Range and extent of areas of heritage potential • Range and extent of areas of special planning controls 	<ul style="list-style-type: none"> • Regeneration of derelict and underutilised heritage sites • Improve appearance of areas with particular townscape character • Improve protection for protected archaeological sites and monuments and their settings, protected structures and conservation areas and areas of archaeological potential • Enhance access to sites of heritage interest
Landscape and Visual		
L1: Conserve and enhance valued natural and historic landscapes and features within them	<ul style="list-style-type: none"> • Range and extent of Amenity Landscapes • Rates of development within designated landscapes • Rates of urban expansion • Rates of deforestation • Rates of agricultural land re-development • % change of land use from rural to urban 	<ul style="list-style-type: none"> • Improve protection for landscapes of recognised quality • Maintain clear urban/rural distinctions • Enhance provision of, and access to, green space in urban areas • Ensure development is sensitive to its surroundings
Material Assets		
M1: Make best use of existing infrastructure, promote the sustainable development of new infrastructure and promote the sustainable efficient use of resources	<ul style="list-style-type: none"> • Location / level of Infrastructure • Achievement of development plan objectives; • Rates of deprivation • Rate of waste disposal to landfill statistics • Range and extent of recycling facilities and services • Rates of recycling 	<ul style="list-style-type: none"> • Improve availability and accessibility of commercially provided facilities and public services • Increase local employment opportunities • Improve efficiencies of transport, energy and communication infrastructure • Promotion of sustainable transport infrastructure i.e. increased public transport. • Reduce the generation of waste and adopt a sustainable approach to waste management.

7 Description of Alternatives

7.1 Introduction

The issue of alternatives is a critical function of the SEA process and is necessary to evaluate the likely environmental consequences of a range of alternative development strategies for the county within the constraints imposed by environmental conditions. The alternatives were considered at an early stage of the process and through an iterative process with the Local Area Plan, SEA and AA teams the most appropriate scenario was selected.

7.2 Legislative Context

Article 5 of the SEA Directive requires the consideration of reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme and the significant environmental effects of the alternatives proposed. It states under Article 5(1) that;

Where an environmental assessment is required under Article 3(1), an environmental report shall be prepared in which the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme, are identified, described and evaluated. The information to be given for this purpose is referred to in Annex I.

In accordance with SEA guidelines the alternatives put forward should be reasonable, realistic and capable of implementation. They should also be in line with the appropriate strategic level at which the Plan will be implemented within the national and county planning hierarchy. The Draft Leixlip Local Area Plan 2017-2023 will be framed within a policy context set by a hierarchy of National, Regional and County level strategic plans as well as the Irish and European legislative framework. Therefore the options for alternatives are limited, and a scenario such as the 'do-nothing' situation has not been included as it is neither reasonable nor realistic.

The alternatives proposed have been assessed against the relevant Strategic Environmental Objectives (SEOs) established for the key aspects of the environment likely to be affected by the Plan's implementation. The evaluation process resulted in the identification of potential impacts and informed the selection of the preferred development scenario for the Leixlip 2017-2023. This determination sought to understand whether each alternative was likely to improve, conflict with, or have a neutral interaction with the environment of the plan area.

7.3 Description of Proposed Alternatives

The consideration of alternative development strategies focused on residential growth in line with the recommendations of the Regional planning Guidelines and County Development Plan. Five alternative scenarios were considered as identified in Figure 7.1 and outlined in further detail below:

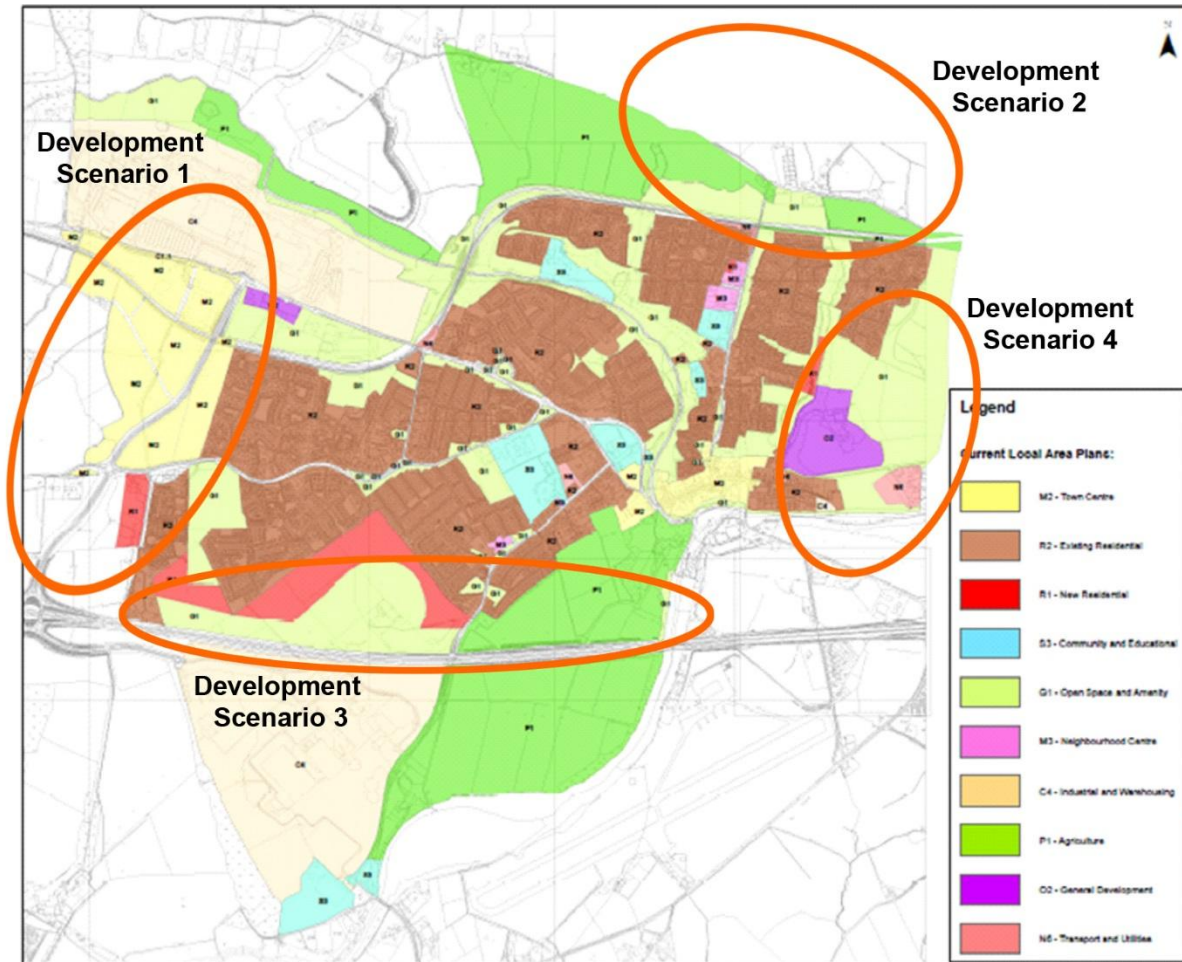


Figure 7.1: Alternative Development Scenarios

Alternative Scenario 1: Western Expansion and Consolidation of Existing Urban Area	
Components	Critical Evaluation
<p>(i) The growth and development of the town focused on the west of the town and includes:</p> <ul style="list-style-type: none"> ▪ The rezoning of lands east of the R449 from ‘Major Town Centre’ to ‘New Residential’. ▪ The rezoning of lands to the west of the R449 from ‘Major Town Centre’ to ‘New Residential’ or ‘Industrial/Warehousing’ or similar. ▪ The zoning of lands to the east of R449 and west of Leixlip Gate (outside of LAP boundary) to ‘New Residential’. <p>(ii) Consolidation of the existing town</p>	<p>No history of flooding, minimal flood risk at this location</p> <p>Edge of settlement</p> <p>Close proximity to town centre</p> <p>Insufficient capacity to accommodate housing requirements</p> <p>Proximity to M4 and review of noise implications</p>

centre by encouraging the development of vacant and under-utilised sites within the town.	
Conclusion	
No	

Alternative Scenario 2: Northern Expansion and Consolidation of Existing Urban Area	
Components	Effects on Planning
<p>Extension of the town into lands to the north of the Royal Canal.</p> <p>The rezoning of lands to the north of the Royal Canal from 'Agriculture' and 'Open Space' to 'New Residential'.</p> <p>The zoning of agricultural land to the north of the R149 outside of existing LAP boundary to 'New Residential'.</p> <p>The provision of infrastructural links back to the town centre.</p>	<p>History of flooding. There is a flood risk at this location. Justification Test Required.</p> <p>Edge of settlement</p> <p>Congestion on road into town centre. Confey Bridge provides for one lane of traffic.</p> <p>Insufficient capacity to accommodate Leixlip's housing requirements</p> <p>Proximity to pNHA</p>
Conclusion	
No	

Alternative Scenario 3: Southern Expansion and Consolidation of Existing Urban Area	
Components	Effects on Planning
<p>The growth and development of the town focused on the south and including:</p> <p>Maintaining the zoning around the Wonderful Barn.</p> <p>The rezoning of greenfield lands (zoned 'Agricultural') at Celbridge Road (east) to the south of Leixlip Park and Wogan's Field.</p> <p>Consolidation of the existing town centre by encouraging the development of vacant and under-utilised sites in the town.</p> <p>The provision of infrastructural links back to the town centre.</p>	<p>No history of flooding</p> <p>Edge of settlement</p> <p>Insufficient capacity to accommodate Leixlip's housing requirements</p> <p>Proximity to M4 and review of noise implications</p>
Conclusion	
No	

Alternative Scenario 4: Eastern expansion and consolidation of Existing Urban Area.

Components	Effects on Planning
<p>The growth and development of the town focused on the east and including:</p> <p>The rezoning of General Development lands to the east at Leixlip Manor.</p> <p>Consolidation of the existing urban area by encouraging the development of vacant and under-utilised sites in the town.</p> <p>The provision of infrastructural links back to the town centre.</p>	<p>High pluvial risk indicated by pluvial extents shown in low lying areas.</p> <p>Increased infrastructural requirements Risk of visual impact on Leixlip manor and St. Catherine’s Park.</p> <p>Insufficient capacity to accommodate Leixlip’s housing requirements</p>
Conclusion	
Not preferred strategy	

Alternative Scenario 5: Combination of Scenarios 1 – 3: Growth and development of the town focused on the north, south and west	
Components	Effects on Planning
<p>The rezoning of lands east of the R449 from ‘Major Town Centre’ to ‘New Residential’;</p> <p>The rezoning of lands to the west of the R449 from ‘Major Town Centre’ to ‘Industrial and Warehousing’ or similar;</p> <p>The zoning of agricultural land to the north of the R149 outside of existing LAP boundary to ‘New Residential’.</p> <p>Maintaining the ‘New Residential’ zoning around the Wonderful Barn;</p> <p>The rezoning of greenfield lands (zoned ‘Agriculture’) at Celbridge Road (East) to the south of Leixlip Park and Wogan’s Field;</p> <p>The rezoning of lands to the north of the Royal Canal from ‘Agriculture’ and ‘Open Space’ to ‘New Residential’</p> <p>The zoning of agricultural land to the north of the R149 outside of LAP boundary.</p> <p>The provision of infrastructural links back to the town centre.</p>	<p>Sufficient capacity to accommodate Leixlip’s housing requirements</p> <p>All development areas located on edge of settlement.</p> <p>Northern area subject to justification test and review of road capacity.</p> <p>Proximity of southern lands to M4 and review of noise implications</p> <p>Provides flexibility and allows for necessary infrastructural upgrades in the given areas.</p>

Consolidation of the existing town centre by encouraging the development of vacant and under-utilised sites in the town.	
Conclusion	
Preferred Strategy	

7.4 Evaluation of Alternatives

This section provides a comparative evaluation of the environmental effects of implementing the alternatives and determines which alternative is likely to have a beneficial, neutral or negative relationship with the Strategic Environmental Objectives (SEO's) outlined in Chapter 6. Using the above SEOs, the alternatives are evaluated against these environmental objectives, the results of the assessment are presented in Table 7.1. The Assessment is categorized as follows:

Positive	
Neutral	
Uncertain	
Negative	

7.5 Outcome of Alternatives Assessment

Table 7.1 highlights that a comparative assessment of the proposed alternatives. This assessment shows that Alternative 5; which provides for a combination of scenarios 1, 2 and 3 comprising, the western expansion, northern expansion, southern expansion and consolidation of the existing urban area was the most appropriate and environmentally protective to the future development of Leixlip. This identifies three key development areas to accommodate the proposed population growth in conjunction with the provision of infrastructure. A key aspect of alternative 5 is that, this approach meets the requirements for the provision of zoned lands and allows for flexibility in the delivery of infrastructural requirements.

This approach would meet a large number of policies and objectives of the Draft LAP as it supports the consolidation of the town centre by zoning lands in closest proximity to the town centre, including infrastructural improvements and encourages the development of vacant and underutilised sites. The exclusion of Alternative 4 allows for the protection of St. Catherine's Park and Leixlip Manor which is an essential amenity for the town and protects its biodiversity and natural heritage.

SEA Objectives	Development Scenario 1 - Western Expansion and Consolidation of Existing Urban Area	Development Scenario 2 – Northern Expansion and Consolidation of Existing Urban Area	Development Scenario 3 - Southern Expansion and Consolidation of Existing Urban Area	Development Scenario 4 – Eastern Expansion and Consolidation of Existing Urban Area	Alternative Scenario 5: Combination of Scenarios 1 – 3
BIODIVERSITY					
B1: Conserve and protect the diversity of habitats and species by limiting adverse impacts on habitats and species of conservation concern.	Neutral	Uncertain	Neutral	Neutral	Neutral
POPULATION					
P1: Improve people’s quality of life based on high-quality residential, working and recreational environments and on sustainable travel patterns.	Positive	Uncertain	Positive	Negative	Positive
SOILS & GEOLOGY					
S1: Protect quality and quantity of existing soil and geology.	Negative	Negative	Negative	Negative	Negative
WATER					
W1: Improve / maintain and protect water Quality and the management of	Neutral	Uncertain	Neutral	Uncertain	Neutral/ Uncertain

SEA Objectives	Development Scenario 1 - Western Expansion and Consolidation of Existing Urban Area	Development Scenario 2 – Northern Expansion and Consolidation of Existing Urban Area	Development Scenario 3 - Southern Expansion and Consolidation of Existing Urban Area	Development Scenario 4 – Eastern Expansion and Consolidation of Existing Urban Area	Alternative Scenario 5: Combination of Scenarios 1 – 3
watercourses to comply with the standards of the Water Framework Directive and incorporate the objectives of the Floods Directive into sustainable planning and development					
AIR QUALITY & CLIMATE					
A1: Maintain and promote continuing environmental improvement where possible of emissions to air (including noise emissions).	Neutral	Neutral	Uncertain	Neutral	Neutral/ Uncertain
MATERIAL ASSETS					
M1: Make best use of existing infrastructure, promote the sustainable development of new infrastructure and promote the sustainable efficient use of resources	Positive	Negative	Positive	Negative	Positive (negative in relation to road access for northern lands)

SEA Objectives	Development Scenario 1 - Western Expansion and Consolidation of Existing Urban Area	Development Scenario 2 – Northern Expansion and Consolidation of Existing Urban Area	Development Scenario 3 - Southern Expansion and Consolidation of Existing Urban Area	Development Scenario 4 – Eastern Expansion and Consolidation of Existing Urban Area	Alternative Scenario 5: Combination of Scenarios 1 – 3
CULTURAL HERITAGE					
C1: Promote the protection and conservation of the archaeological, architectural and cultural heritage	Neutral	Uncertain	Uncertain	Negative	Neutral/ Uncertain
LANDSCAPE					
L1: Conserve and enhance valued natural and historic landscapes and features within them	Neutral	Neutral	Uncertain	Negative	Neutral

8.0 Strategic Environmental Assessment of Draft Leixlip LAP

8.1 Introduction

The SEA process ensures that the environment is central to all decisions on the future development of the plan area.

The purpose of this section of the Environmental Report is to highlight the potential conflicts, if they are present, between the stated policies and objectives contained in the Draft Plan with the Strategic Environmental Objectives. Furthermore the assessment examines the potential impact arising from the Plan's implementation of its policies and objectives on sensitive environmental receptors.

The process of SEA and Local Area Plan formulation is an iterative one and as such environmental considerations have informed all stages of plan preparation carried out to date in order for the potential for significant adverse effects arising from implementation of the plan to be minimised. Nonetheless, it is possible that some individual plan objectives or policies will create such effects. Where the environmental assessment identifies significant adverse effects, consideration is given in the first instance to preventing such impacts; where this is not possible for stated reasons, to lessening or offsetting those effects through mitigation measures outlined in Chapter 9 of this report.

In some instances there is little or no relationship between the various Plan Policies/Objectives and the respective environmental receptor. Where this occurs, the potential impact is regarded as neutral and no further discussion is deemed necessary.

This section provides a comparative evaluation of the environmental effect of implementing the stated policies and objectives of the Draft Leixlip LAP and determines whether each measure is likely to have a positive, neutral, uncertain or negative relationship with the Strategic Environmental Objectives (SEO's) outlined in Chapter 6. Using the above SEOs, the policies and objectives of the Draft LAP are evaluated in the context of their impact on these environmental objectives, the results of the assessment are presented in a table format below. The potential effects are categorised as follows:

- Potential Positive Impact
- Uncertain impact
- Neutral or No relationship
- Potential Negative impact

Where the evaluation identifies a potential uncertain or negative impact with the status of an SEO, the relevant SEO code and provision is entered into a Mitigation Table (Table 9.1) to assess what mitigation is available to offset uncertain or potentially negative impacts arising from the provision.

Table 8.2 Environmental Assessment Of Proposed Draft LAP Policies and Objectives

Specific Policies and Objectives of the Draft Plan	Potential Negative Impact	Potentially Uncertain Impact	Potentially Neutral or No relationship	Potential Positive Impact	Comments	
Proposed Policies & Objectives						
Core Strategy						
Policy CS-1: It is the policy of the Council to support the sustainable long-term growth of Leixlip in accordance with the Core Strategy of the Kildare County Development Plan 2017 – 2023.			S1, W1, A1, C1, L1, M1	B1, P1		
Objectives						
CSO1.1: To support and facilitate sustainable intensification and consolidation in the town centre and in established residential areas.			S1, W1, C1, L1, M1	B1, P1, A1		
CSO1.2: To focus new residential development into the Key Development Areas (KDAs) in tandem with community and social infrastructure.			S1,W1, C1, L1, M1, B1	P1, A1		
CSO1.3: To promote and support the development of a new residential and community district at Confey, Leixlip, in tandem with the delivery of high capacity public transport and necessary physical, social and economic infrastructure. A masterplan shall be prepared for Confey and integrated into the Leixlip Local Area Plan by way of Statutory Amendment to the Local Area Plan, pursuant to Section 20 of the Planning and Development Act 2000 (as amended). No development shall be permitted in the masterplan area until such time as the masterplan is			S1, W1, C1, L1, M1, B1	P1, A1		

integrated into the plan.					Comments
Specific Policies and Objectives of the Draft Plan	Potential Negative Impact	Potentially Uncertain Impact	Potentially Neutral or No relationship	Potential Positive Impact	
CSO1.4: To promote and support the development of an enterprise and employment campus at Collinstown, Leixlip. Development shall be plan led and subject to a masterplan prepared by or on behalf of, Kildare County Council, and should reflect the strategic location of this site in the north Kildare Economic Growth Cluster and in the GDA.		B1	S1, W1, A1, C1, L1, M1	P1	
CSO1.5: To support and facilitate development on zoned land based on the policies and objectives of the Kildare Development Plan 2017 – 2023 and the Leixlip Local Area Plan 2017 -2023.			S1, W1, A1, C1, L1	B1, P1, M1	
Proposed Policies & Objectives Town Centre					
Policy UCR1 - Town Centre To protect the quality, visual character, cultural heritage, ambience and vitality of the traditional heart of Leixlip Town Centre so that it meets the retailing and service needs of the area, in addition to offering a pleasant and attractive environment for shopping, business s, tourism, recreation and living.			B1, S1, W1, A1, M1	P1,C1, L1	
Objectives It shall be an objective of the Council:					

<p>UCRO1.1: To promote the town centre as a priority location for commercial, civic, social and cultural development and to promote new development that consolidates the existing urban core.</p>			<p>B1, S1, W1, A1, C1, L1, M1</p>	<p>P1</p>	
<p>UCR1.2: To improve the quality, ambience, vitality and vibrancy of the town centre, including:</p> <ul style="list-style-type: none"> (i) To promote an appropriate mix of day and night time uses. (ii) To seek to facilitate development that will act as a dynamic centre to attract and retain business in the town centre. 			<p>B1,S1, W1, A1, M1</p>	<p>P1,C1, L1</p>	
<p>UCR1.3: To encourage and facilitate the full use of buildings and sites and in particular the use of upper floors and back lands, with due cognisance to quality of urban design, integration and linkage, including:</p> <ul style="list-style-type: none"> (i) To provide a new pedestrian link between Captain’s Hill and Mill Lane. (ii) To consider appropriate development along the escarpment between Riverdale and the new pedestrian link. 			<p>S1, W1, A1, C1, L1, M1</p>	<p>B1, P1</p>	
<p>UCRO1.4 To improve the accessibility of the town centre with particular emphasis on creating an environment that is accessible to pedestrians and cyclists.</p>			<p>S1, W1, C1, L1, B1</p>	<p>P1, A1, M1</p>	

Proposed Policies & Objectives Retailing					
Policy UCRO2: It is the policy of the Council to support retail function of Leixlip through a combination of redevelopment of appropriate infill and opportunity sites in the town centre, expansion opportunities at neighbourhood centres and in conjunction with the development of new residential districts.		L1	S1,W1,A1,C1, M1	B1, P1	
Objectives It shall be an objective of the Council:					
UCRO2.1: To ensure the type, quantum and location of future retail floorspace provision in Leixlip is consistent with the requirements and recommendations of the County Development Plan, relevant regional policy frameworks and national planning guidelines.			B1, L1, S1,M1,W1,A1,C1	P1	
UCRO2.2: To support and facilitate the development of retail, retail services and niche retailing in the town centre area, including new/infill development and redevelopment of an appropriate scale.		C1	B1, L1, S1, M1, W1, C1	P1, A1	
Specific Policies and Objectives of the Draft Plan	Potential Negative Impact	Potentially Uncertain Impact	Potentially Neutral or No relationship	Potential Positive Impact	Comments

UCRO2.3: To support and facilitate extensions to the established retail centres at Confey and Louisa Bridges.		B1	S1,W1,A1,C1, L1	P1,M1
UCRO2.4: To support the development of new local retail facilities in conjunction with the development of new residential districts and in accordance with a masterplan to be prepared by, or on behalf of Kildare County Council.			B1, S1, W1, A1, C1, L1, M1, C1	P1
UCRO2.5: To protect the primacy of the town centre as the core retail area in Leixlip, through the application of a sequential approach to retail development, in accordance with the Retail Planning Guidelines for Planning Authorities, DECLG (2012).		C1	B1, S1, W1, A1, L1, M1	
UCRO2.6: To encourage and facilitate the re-use and regeneration of derelict land and buildings for retail and other Town Centre uses, with due cognisance of the character, heritage and design requirements for the Architectural Conservation Area (ACA).			S1, W1, A1, M1	B1, C1, L1
UCRO2.7: To support the development of retail-led tourism associated with the natural and built heritage assets of Leixlip.		B1	S1, W1, A1, C1, L1, M1	P1
Proposed Policies & Objectives Public Realm				
Policy UCR3: It is the policy of the Council to actively encourage, support and facilitate environmental and public		C1	S1, W1, A1, M1	P1, L1, B1

realm improvements in Leixlip to address environmental quality, urban design, safety, identity and traffic impact.					
Objectives: It shall be an objective of the Council:					
UCRO3.1: To ensure that all new development in the town centre contributes positively to and enhances the streetscape and public realm in Leixlip.			B1, S1, W1, A1	P1, L1, C1, M1	
UCRO3.2: To actively engage with the community, developers and other agencies to secure resources for the enhancement, renewal and regeneration of the public realm in Leixlip.			B1, S1, W1, A1	P1, L1,C1, M1	
UCRO3.3: To rationalise the excessive use of line-marking and signage on Main Street.			B1, S1, W1, L1, A1, C1, M1	P1	
UCRO3.4: To investigate the potential for widening paving along suitable portions of Main Street to incorporate designated parking, set down areas and potential for new tree planting.			B1, S1, W1, A1, C1, L1, M1	P1	
UCRO3.5: To develop a central hub/node at Arthur Guinness Square and strengthen the connection between Main Street and River Liffey.			B1, S1, W1, A1, L1, M1	P1, C1	
UCRO3.6: To facilitate the extension, where appropriate, of the riverside walk along the northern bank of the River Liffey from Arthur Guinness Park to Liffey Bridge.	B1	S1, W1, L1	A1, C1	P1, M1	

Specific Policies and Objectives of the Draft Plan	Potential Negative Impact	Potentially Uncertain Impact	Potentially Neutral or No relationship	Potential Positive Impact	Comments
UCRO3.7: To promote a multi-use and versatile environment for Arthur Guinness Square.		C1	B1, S1, W1, A1, L1	P1	
UCRO3.8: To encourage incidental play at suitable locations along the river walkway; opportunities may be possible within riverside woodland adjacent Rye River Mall and at the riverside amenity at Arthur Guinness Park.	B1	W1	S1, M1, A1, C1, L1	P1	
UCRO3.9: To investigate options to connect the Rye River Walkway to Main Street, including the possibility of re-opening closed archways off Main Street.		B1, W1, L1	S1,A1, C1	P1, M1	
Proposed Policies & Objectives Shopfronts					
Policy UCR4: It is the policy of the Council to support the provision of high quality shop fronts and signage that contribute positively to and enhance the streetscape and to seek to control and limit superfluous signage.			B1, S1, W1, A1, M1	P1,C1,L1	
Objectives: It shall be an objective of the Council:					
UCRO4.1: To ensure that new shopfront design contributes positively to and enhances the streetscape, and is in accordance with the guidance set out in the County Kildare Shop Front Guidelines			B1, M1, S1, W1, A1	P1,C1,L1	

(Kildare County Council July 2013).					
Specific Policies and Objectives of the Draft Plan	Potential Negative Impact	Potentially Uncertain Impact	Potentially Neutral or No relationship	Potential Positive Impact	Comments
UCRO4.2: To ensure that new signage contributes positively to and enhances the streetscape in accordance with the guidance set out in the Kildare County Council Policy on Signage (April 2013).			B1, S1, W1, A1, M1	P1,C1, L1	
Proposed Policies & Objectives Derelict Sites and Undesirable Uses					
Policy UCR5: It is the policy of the Council to apply the provisions of the Derelict Sites Act 1990 and the Urban Regeneration and Housing Act 2015 in Leixlip.			B1, C1, W1, A1, M1	P1,S1,L1	
Objectives It shall be an objective of the Council:					
UCRO5.1: To apply the provisions of the Derelict Sites Act 1990 and the Urban Regeneration and Housing Act 2015 in securing the regeneration of derelict and vacant sites which are detracting from the amenities of Leixlip.			W1, C1, M1, B1	P1,S1,A1,L1	
UCRO5.2: To promote the sustainable development of vacant residential and regeneration sites in Leixlip through the application of the Urban Regeneration and Housing Act 2015, Vacant Site Levy, on lands zoned 'A' Town Centre, 'B'			W1, C1, M1, B1	P1,S1,A1, L1	

Existing Residential and 'C' New Residential.					Comments
Specific Policies and Objectives of the Draft Plan	Potential Negative Impact	Potentially Uncertain Impact	Potentially Neutral or No relationship	Potential Positive Impact	
Proposed Policies & Objectives Undesirable Uses					
Policy UCR6: It is the policy of the Council to manage the provision of undesirable uses such as fast food outlets, take-aways, turf accountants and off-licenses, in the interest of protecting the retail function, residential amenity and public realm of Leixlip Town Centre			B1, M1, S1, W1, A1,C1, L1	P1	
Objectives It shall be an objective of the Council:					
UCRO6.1: To prevent an excessive concentration of fast food outlets, take-aways, accountants/betting offices and off-licenses in Leixlip Town Centre.			B1, C1, S1, L1, W1, M1, A1	P1	
Proposed Policies & Objectives Enterprise and Economic Development					
Policy EDT1: It is the policy of the council to support the development of Leixlip as an enterprise and employment hub for northeast Kildare.			B1, A1, M1, S1, C1, W1, L1	P1	
Objectives It shall be an objective of the Council:					
EDTO1.1: To promote enterprise and employment development at Collinstown, focusing on the high tech, bio tech, research and development, ICT			B1, A1, S1, C1, W1, L1	P1	

and manufacturing sectors, and as informed by a strategic assessment of employment lands for the County (Objective EO16 of the Kildare County Development Plan 2017-2023).					
Specific Policies and Objectives of the Draft Plan	Potential Negative Impact	Potentially Uncertain Impact	Potentially Neutral or No relationship	Potential Positive Impact	
EDTO1.2: To promote the provision of incubator enterprise units suitable for SMEs and start-up companies at Collinstown to offer opportunities associated with clustering and networking.		B1	S1,W1, L1,A1,C1	P1,M1	
EDTO1.3 To facilitate the expansion of industries in Leixlip, taking full account of the obligations of the Habitats and Birds Directive and the sensitivities of the receiving environment including ensuring that proposals for development that could potentially affect the integrity of the Natura 2000 network which would be likely to have a significant effect on nature conservation-sites and /or habitats or species of high conservation value will only be approved if it can be ascertained, by means of an Appropriate Assessment or other ecological assessment, that the integrity of these sites will not be adversely affected.		S1,W1,A1,L1	B1,C1	P1,M1	
EDTO1.4: To comply with the SEVESO III Directive to reduce the risk of accidents in Leixlip and the surrounding areas.			S1,W1,C1,A1,L1,M1	B1,P1	

<p>EDTO1.5: To have regard to the following in assessing applications for developments (including extensions) in the vicinity of the Intel SEVESO site:</p> <ul style="list-style-type: none"> a) Major Accidents Directive (Seveso II – 96/082/EEC) b) The potential effects on public health and safety. c) The need to ensure adequate distances between such developments and residential areas, areas of public use and any areas of sensitivity. d) The advice of the Health and Safety Authority. 			S1,W1,C1,L1,M1	P1, A1, B1		
<p>Proposed Policies & Objectives Non-Conforming Uses</p>						
<p>Policy EDT2: It is the policy of the Council, where commercial and industrial enterprise exist as non-conforming but long established uses, to support their continued operation and reasonable expansion, in accordance with the proper planning and sustainable development of the area, save where such a use would impact negatively on the economic and social wellbeing of the area and inhibit development that is in conformance with the land use zoning objective.</p>		A1, L1	B1,S1, W1,C1,M1	P1		
<p>Objectives</p>						
<p>EDTO2.1: To support the continued operation and reasonable expansion of existing non-conforming uses, provided</p>		A1	B1,S1,W1,C1,M1, L1	P1		

<p>as they do not:</p> <ul style="list-style-type: none"> • Result in loss of amenity to adjoining properties • Cause adverse impact on the environment • Cause adverse impact on the visual amenity or character of the area, or • Inhibit the development of adjoining land in conformance with its land use zoning objective 					
<p>Proposed Policies & Objectives Tourism</p>					
<p>Policy EDT3: It is the policy of the Council to support and facilitate existing amenities and the development of sustainable tourism infrastructure, attractions, activities and facilities in Leixlip.</p>			<p>B1, C1, S1, L1, W1, M1, A1</p>	<p>P1</p>	
<p>Objectives It shall be an objective of the Council:</p>					
<p>EDTO3.1 To identify opportunities to improve the tourist product in Leixlip and to co-operate with the appropriate statutory agencies, private tourism sector and community groups.</p>			<p>S1, L1,W1,M1,A1</p>	<p>P1,C1</p>	
<p>EDTO3.2 To support and facilitate the development of an integrated network of Greenways and Heritage Trails, including blueways/water trails, along suitable corridors along the River Liffey, River Rye, Royal Canal and to Castletown/Celbridge.</p>	<p>B1</p>	<p>S1,W1,L1</p>	<p>A1,C1</p>	<p>P1,M1</p>	

EDTO3.3 To encourage the development of tourism activities such as waterways activities, agri-tourism, green/ecotourism, niche retailing, food markets, local and other craft type activities so as to diversify the tourism product in Leixlip.	B1	S1,W1	A1,C1,L1	P1,M1	
EDTO3.4 To facilitate the provision of standardised signage and interpretation for tourism facilities and tourist attractions throughout the town.			B1,C1, S1, L1, W1, M1, A1	P1	
EDTO3.5 To support development of new tourist facilities or upgrading / extension of existing tourist facilities, including hotels, guesthouses and B&B's, in accordance with the proper planning and sustainable development of the area.			B1, S1, W1, A1, C1	P1,M1	
EDTO3.6 To work with Waterways Ireland and the ESB in supporting the development of angling and canoeing/kayaking infrastructure and facilities for tourism in proximity to appropriate watercourses or water bodies, subject to an appropriate scale of development having regard to the pertaining environmental conditions and sensitivities, scenic amenity and availability of services.		B1, W1	S1,A1,C1, L1	P1,M1	
EDTO3.7 To support development of linkages between the historical demesne lands within and around the town to promote amenity linkage.		B1, S1	W1	P1,A1,C1,L1,M1	

EDTO3.8 To support the development of a heritage trail through the town, linking the town centre to The Wonderful Barn, Castletown House and other historical demesne lands within and around the town.		B1, S1, C1	W1	P1,A1, L1, M1
EDTO3.9 To promote the Wonderful Barn as an integrated tourism and amenity destination with complementary commercial uses.		C1	B1, A1, S1, M1, W1	P1, L1
EDTO3.10 To support and encourage further appropriate development associated with the Arthur's Way heritage trail.		B1, C1	S1, W1, A1	P1,L1,M1
EDTO3.11 To support and encourage further appropriate development of tourism and recreational facilities at Leixlip Manor Hotel and Gardens.			S1, W1, A1, C1, B11	P1,L1,M1
Proposed Policies & Objectives				
Residential Development: Capacity and Delivery				
POLICY HC1: It is the policy of the Council to ensure that sufficient land continues to be available at appropriate locations to satisfy the Core Strategy growth allocation for Leixlip and that each household has access to good quality housing that is appropriate to its circumstance.			B1,S1,W1,A1,C1	P1,L1
Objectives				
It shall be an objective of the Council:				
HCO1.1: To promote and facilitate the phased development of identified Key			B1,S1,W1,A1,C1,M1	P1,L1

<p>Development Areas in accordance with the guidance set out in Chapter 12 of this LAP.</p>					
<p>HCO1.2: To prepare a masterplan for a new residential and community district at the Confey area in co-operation with relevant stakeholders, and actively secure the implementation of these plans and the achievement of the specific objectives indicated through phased development and the timely delivery of necessary physical, social and community infrastructure (refer to CSO1.3 also).</p>			S1,W1,A1,C1,B1	P1,L1,M1	
<p>HCO1.3 To secure the provision of social infrastructure, community, and recreational facilities in tandem with residential development, in accordance with the implementation strategy in Section 13 of this LAP.</p>			S1,W1,A1,C1, B1	P1,L1,M1	
<p>HCO1.4: To encourage the appropriate redevelopment of brownfield and infill sites for residential uses within the LAP area subject to compliance with the relevant development management standards of the County Development Plan.</p>			B1,S1,W1,C1,M1	P1,A1,L1	
<p>HCO1.5: To manage the provision of one off housing on lands zoned as 'I: Agricultural'. Limited one off housing will be permitted in this zone subject to compliance with the rural housing policy of the CDP. Documentary evidence of compliance with this policy must be</p>			B1,C1,M1	P1,S1,W1,A1,L1	

submitted as part of the planning application, including a separate statement by the applicant on the need to reside in the area.					
HCO1.6: To ensure that, notwithstanding compliance with policy HCO1.6, applicants comply with all other normal siting and design considerations.			B1,S1,W1,A1,C1,M1	P1,L1	
Proposed Policies & Objectives: Residential Density, Mix and Design					
Policy HC2: It is the policy of the Council to ensure that all new residential development provides for a sustainable mix of housing types, sizes and tenures and that new development complements the existing residential mix.			B1,P1,S1,W1,A1,C1, M1	L1	
Objectives It shall be an objective of the Council:					
HCO2.1: To require new residential developments to meet the standards and guidance on set out in: <ul style="list-style-type: none"> • The Sustainable Residential Development in Urban Areas, Guidelines for Planning Authorities, DEHG (2009). • Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities • The Design Manual for Urban Roads and Streets, DTTS and DECLG (2013) • The policies, objectives and development management standards 			B1, S1, W1, A1,C1, M1	P1,L1	

contained in this LAP and the Kildare County Development Plan.					
HCO2.2: To ensure that a good mix of housing types and sizes is provided in each Key Development Area to meet the needs of the population of Leixlip.			B1, S1, W1, A1, C1, M1	P1,L1	
HCO2.3: To require the submission of a Design Statement and Housing Mix Statement with applications for residential development in accordance with the provisions of the County Development Plan.			B1, P1, S1, W1, A1, C1, M1	L1	
HCO2.4: To apply a 10% Social Housing requirement, pursuant to Part V of the Planning and Development Act 2000 (as amended) to all sites that are zoned solely for residential use or for a mixture of residential and other uses (save where the development is exempt from the provisions of Part V).			B1, S1, W1, A1, C1, L1	P1, M1	
Proposed Policies & Objectives Education, Childcare and Health Facilities					
Policy HC3: It is the policy of the Council to facilitate and secure the provision of social infrastructure to support existing and new communities within the LAP area, in a manner which provides flexibility to respond to varied and changing community needs.		L1	B1, S1, W1, A1, C1	P1,M1	

Objectives				
It shall be an objective of the Council:				
HCO3.1: To support and facilitate improvements to existing educational, childcare and healthcare facilities within the Leixlip LAP area.			B1, S1, W1, A1, C1, L1	P1,M1
HCO3.2: To require the provision of a minimum of 0.13 childcare spaces per dwelling on a pro-rata basis in the Key Development Areas, in accordance with the phasing requirements set out in Section 13 of the LAP.			B1, S1,W1,A1,C1,L1	P1,M1
HCO3.3: To support the provision of a purpose built childcare facility or facilities to meet the pro-rata childcare needs of housing development during the LAP period.			B1,S1,W1,A1,C1,L1	P1,M1
HCO3.4 To support and facilitate the provision of children’s play facilities in Leixlip (including playgrounds and a skatepark).			B1,S1,W1,A1,C1,L1	P1,M1
Proposed Policies & Objectives				
Other Community, Sports and Recreational Facilities				
Policy HC4: It is the policy of the Council to facilitate and support a broad range of community and recreational facilities to serve the needs of the residents of the LAP area.			B1,S1,W1,A1,C1,L1	P1,M1
Objectives				
It shall be an objective of the Council:				
HCO4.1: To support and facilitate the provision of multi-functional community			B1,S1,W1,A1,C1	P1,M1

facilities to meet the needs of the population of the Leixlip LAP area.					
HCO4.1: To support and facilitate a planned extension to the existing graveyard at Confey.		S1, W1	P1,A1,C1,L1,M1, B1		
Proposed Policies & Objectives					
Walking & Cycling					
Policy MT1: It is the policy of the Council to promote enhanced permeability for pedestrians and cyclists within the urban environment in order to improve access to the town centre, local schools, recreational facilities, shops, public transport services and other amenities, subject to local public consultation. This includes providing improved connectivity across the River Rye, Royal Canal and railway line, and enhanced links with Maynooth and Celbridge.		S1,W1	B1,C1	P1,A1,L1,M1	
Objectives It shall be an objective of the Council:					
MT01.1: To ensure all footpaths in the town provide adequate access for the disabled and mobility impaired.			B1,C1, S1,W1, A1,L1,M1	P1	
MT01.2: To support facilitate and encourage cycling as a more convenient and safe method of transport through the development of new or improved cycle facilities in Leixlip.			B1,C1, S1,W1, L1,M1	P1, A1	
MT01.3: To work with the National Transport Authority to implement the			B1,C1, S1,W1, L1,M1	P1, A1	

Great Dublin Area Cycle Network Plan proposals for Leixlip, including the North Kildare Cycleway (Dublin – Galway) subject to detailed engineering design and the mitigation measures presented in the SEA and Natura Impact Statement accompanying the NTA Plan.					
MT01.4: To improve and maintain the following routes for use by both pedestrians and cyclists: (i) Silleachain Lane; (ii) Distillery Lane; (iii) Rye Valley to the Glen; and (iv) Mill Lane to St Catherine’s Park. These options will be explored in further detail and subject to ecological analysis and assessment in order to safeguard the Rye Water Valley/Carton SAC.		B1,S1,W1	C1,L1,M1	P1,A1	
MT01.5: To examine the feasibility of new pedestrian/cycle links across the canal and railway that enhance walking and cycling options from linking the canal and rail stations to residential areas and public spaces.		B1,S1,W1	C1,L1	P1,A1,M1	
MT01.6: To examine options for a new pedestrian and cycle link across the Rye River linking Confey Community College to Ryevale Lawns. OThese options will be explored in further detail and subject to ecological analysis and assessment in order to safeguard the Rye Water Valley/Carton SAC. Proposals for development which would be likely to		S1,W1,L1	C1, B1,	P1,A1,M1	

have a significant effect on nature conservation-sites and /or habitats or species of high conservation value will only be approved if it can be ascertained, by means of an Appropriate Assessment or other ecological assessment, that the integrity of these sites will not be adversely affected.					
MTO 1.7: To facilitate pedestrian and cycle links from Green Lane to The Wonderful Barn through Easton Meadows and new residential development.		S1,B1, C1	W1	P1,A1,L1,M1	
MTO 1.8: To provide adequate, secure and dry bicycle parking facilities at appropriate locations at: (i) In the town centre; and (ii) Near heritage, community and amenity destinations.		C1	B1,S1,W1,A1,L1	P1,M1	
MTO1.9: To ensure that the new pedestrian and cycle route to link Captains Hill and Mill Lane is carried out in accordance with the requirements of this Plan.			B1,S1,W1,C1, L1	P1,A1,M1	
MTO1.10 To support delivery of a pedestrian and cycle overpass of the M4 to link The Wonderful Barn at Leixlip to Castletown Demesne in Celbridge in consultation with Transport Infrastructure Ireland.		C1, L1	B1,S1,W1	P1,A1,M1	

<p>MTO1.11 To improve access, security and safety to and along the Royal Canal towpath, including:</p> <ul style="list-style-type: none"> (i) Improving pedestrian access from Cope Bridge to the towpath; and (ii) Improve car-parking facilities adjacent to Royal Canal entry points at Cope Bridge and Louisa Bridge. 			B1,S1,W1,A1,C1,L1	P1,M1
<p>Proposed Policies & Objectives Public Transport</p>				
<p>Policy MT2: It is the policy of the Council to promote the sustainable development of the Leixlip by supporting and guiding the relevant national agencies in delivering improvements to the public transport network and to public transport services.</p>			B1,S1,W1,C1,L1	P1,A1,M1
<p>Objective It is the objective of the Council:</p>				
<p>MTO2.1: To secure the implementation of major public transport projects identified in the Transport Strategy for the Greater Dublin Area 2016-2035.</p>		B1	S1,W1,C1, L1	P1,A1,M1
<p>MTO2.2: To focus people intensive land uses around existing and planned public transport nodes, and improve access to services.</p>			B1,S1,W1,C1, L1	P1,A1,M1
<p>MTO2.3: To support and facilitate the delivery of electrification and upgrading of the Dublin – Sligo rail line from Connolly Station to Maynooth, including the upgrading of Cope Bridge.</p>		L1	B1,S1,W1,C1	P1,A1,M1

MT02.4: To support the provision of new or upgraded public transport infrastructure in Leixlip, including bus infrastructure new or upgraded bus lanes, stops and lay-bys and parking areas.			B1,S1,W1,C1, L1	P1,A1,M1
Proposed Policies & Objectives Transportation				
Policy MT3: It is the policy of the Council to maintain, improve and extend the local road network in and around Leixlip to ensure a high standard of connectivity, and safety for all road users.		S1,W1,A1	B1,C1,L1	P1,M1
Objective It is the objective of the Council:				
MT03.1 To 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 this Plan and relevant legislation.			B1, S1, W1, C1, L1, A1	M1, P1
MT03.2 To support the implementation of the following road improvement schemes, subject to the availability of funding and environmental and conservation requirements: (i) The realignment of the R148 (Maynooth Road) at Collinstown in line with the approved Part 8. (ii) The replacement/upgrading of Cope Bridge. (v) The improvement of the junction of		B1,S1,W1	A1,C1, L1	P1,M1

Main Street and Mill Lane.					
<p>MT03.3 To investigate the feasibility of the following road improvement schemes, to include an investigation of alternatives:</p> <p>(i) The realignment and improvement of the R149 (Confey Road) between the L1014 (Kellystown Lane) and the county border with Fingal.</p> <p>(ii) The upgrading of the L1014 (Kellystown Lane) or an alternative north-south connection west of the R149.</p> <p>(iii) The improvement of the intersection between R149 (Captains Hills and R148 (Main St.)</p> <p>Proposals for development will only be approved if it can be ascertained, by means of an Appropriate Assessment (or other ecological assessment where appropriate), that the integrity of European Sites and/or protected habitats or species will not be adversely affected.</p>		B1,S1,W1,L1	A1,C1	P1,M1	
<p>MT03.4 To secure improved access to The Wonderful Barn from the R404 (Celbridge Road) as part of any future development at this location.</p>			B1,S1,W1,A1, L1	P1,C1,M1	
<p>MT03.5 To ensure that any significant new development takes place in proximity to public transport routes and can be adequately served by the road</p>			B1, S1,W1,C1,L1	P1,A1,M1	

network.					
MTO3.6 To provide traffic calming measures throughout the town of Leixlip, where necessary as funding allows and ensure that all new developments are designed to incorporate appropriate traffic calming measures.			B1,C1,P1,L1,S1,M1,W1	A1	
MTO3.7 To investigate the provision of additional on-street and off street public car parking in the town centre.		A1	B1,W1,C1,P1,L1,M1,S1		
MTO3.8 To implement the recommendations of the Kildare Noise Action Plan 2013 – 2018, to seek to reduce, where necessary, the harmful effects of traffic noise, through appropriate mitigation measures to meet the best environmental options not entailing excessive cost (BATNEEC best available technology not entailing excess cost).			B1,P1,S1,W1,C1,L1,M1	A1	
MTO3.9 All road developments will be undertaken in accordance with the 'Principles of Road Development' as set out in Section 5.8.3, Transport Strategy for the Greater Dublin Area 2016-2035			B1,S1,W1,C1,L1,A1	M1, P1	
MTO3.10 To ensure that all significant development proposals for the KDAs and Masterplan areas are subject to a Traffic Impact Assessment (TIA), to be carried out in accordance with the Traffic and Transport Assessment Guidelines, NRA 2014. The requirement for TIA will be			B1,S1,W1,C1,L1,A1	M1, P1	

determined on a case by case basis.					
Proposed Policies & Objectives					
Parking					
Policy MT4 It is the policy of the Council to manage the provision of parking to provide for the needs of residents, business and visitors to Leixlip Town Centre.			B1,P1,S1,W1,C1	A1,L1,M1	
Specific Policies and Objectives of the Draft Plan	Potential Negative Impact	Potentially Uncertain Impact	Potentially Neutral or No relationship	Potential Positive Impact	Comments
Objective It is the objective of the Council:					
MTO4.1: To apply the parking standards in the Kildare County Development Plan to all applications for planning permission in Leixlip LAP.			B1, C1,S1,L1,W1,A1	P1,M1	
Proposed Policies & Objectives					
Water Supply and Wastewater					
Policy I1 It is the policy of the Council to work in conjunction with Irish Water to protect existing water and wastewater infrastructure in Leixlip, to maximise the potential of existing capacity and to facilitate the timely delivery of water services infrastructure to facilitate future growth.			B1,S1,A1,C1,L1	P1,W1,M1	
Objective It is the objective of the Council:					
IO1.1: To work in conjunction with Irish Water to promote the ongoing upgrade			B1,L1,S1,A1,C1	P1,W1,M1	

and expansion of water supply and wastewater services to meet the future needs of Leixlip.					
IO1.2: To maximise the use of existing capacity in water services in the planning of new development.			S1,A1,C1,L1,M1	P1,W1, B1	
IO1.3 To seek to ensure that adequate water services will be available to service development prior to the granting of planning permission for development.			B1,S1,A1,C1,L1,M1	P1,W1	
IO1.4 To seek to ensure that development proposal comply with the standards and requirements of Irish Water in relation to water and wastewater infrastructure.			B1,S1,A1,C1,L1,M1	P1,W1	
Proposed Policies & Objectives					
Surface Water & Groundwater					
Policy I2: It is the policy of the Council to maintain and enhance the existing surface water drainage systems in Leixlip and to protect surface and ground water quality in accordance with the Water Framework Directive.			A1, C1, L1, M1	P1, B1, S1, W1	
Objective It is the objective of the Council:					
IO2.1: To carry out surface water infrastructure improvement works as required.			B1, S1, A1, C1, L1	P1, W1, M1	
IO2.1: To incorporate Sustainable Urban Drainage Systems (SUDS) as part of all plans and development proposals in Leixlip. Proposals for KDAs and Masterplan areas should address the			A1, C1, L1	P1,S1,W1,M1	

potential for SUDS at a local and district level to control surface water outfall and protect water quality.				
IO2.3: To maintain, improve and enhance the environmental and ecological quality of surface waters and groundwater in Leixlip in accordance with the Eastern River Basin District River Basin Management Plan and in conjunction with the EPA.			A1,C1,L1,M1	B1,P1,S1,W1
IO2.4 To require applicants to demonstrate that proposals will not negatively impact on the status of a waterbody, in accordance with the requirements of the Water Framework Directive and associated River Basin Management Plans.			S1, A1,C1,L1,M1	B1,W1, P1
IO2.5 To protect both ground and surface water resources and to work with Irish Water to develop and implement Water Safety Plans to protect sources of public water supply and their contributing catchments.			B1,S1,A1,C1,L1,M1	P1,W1
Proposed Policies & Objectives Flood Risk Management				
Policy I3: It is the policy of the Council to manage flood risk in Leixlip in conjunction with the OPW and in accordance with the requirements of the Planning System and Flood Risk Management Guidelines for Planning Authorities (2009) and circular PL02/2014 (August 2014).			B1,S1,A1,C1,L1,M1	P1,W1
Objectives				

It is the objective of the Council:				
IO3.1: To manage flood risk in Leixlip in accordance with the requirements of The Planning System and Flood Risk Management Guidelines for Planning Authorities, DECLG and OPW (2009) and Circular PL02/2014 (August 2014).			B1,S1,A1,C1,L1, M1	P1,W1
IO3.2: To ensure development proposals within the areas outlined on Flood Risk Map are the subject of Site-Specific Flood Risk Assessment, appropriate to the nature and scale of the development being proposed.			B1,S1,A1,C1,L1,M1	P1,W1
IO3.3: To support and co-operate with the OPW in delivering the Eastern CFRAM Programme applicable to Leixlip.			B1, S1,C1, L1,M1,A1	P1,W1
Proposed Policies & Objectives				
Energy and Communications				
Policy 14: It is the policy of the Council to promote and facilitate the development and renewal of energy and communications networks in Leixlip, while protecting the amenities of the town.			B1,S1, L1,W1,C1	P1,A1,M1
Objectives				
It shall be an objective of the Council:				
IO4.1: To support the statutory providers of national grid infrastructure by safeguarding existing infrastructure and strategic corridors from encroachment by other development, that might compromise the operation, maintenance and provision of energy networks.			B1,P1,W1,A1,C1, L1	M1

<p>IO4.2: To support and facilitate the provision of telecommunications infrastructure in Leixlip, subject to safety and amenity requirements.</p>			<p>B1,P1,S1,W1,A1,C1, L1</p>	<p>M1</p>	
<p>IO4.3: To seek the undergrounding of all electricity, telephone and television cables in the town.</p>		<p>B1,S1</p>	<p>W1,A1,C1</p>	<p>P1, L1, M1</p>	
<p>IO4.4: To discourage a proliferation of above ground utility boxes in the town and to seek screening measures in conjunction with the provision of such structures.</p>		<p>S1</p>	<p>B1, P1, W1, A1, C1</p>	<p>L1, M1</p>	
<p>IO4.5: To support ESB in identifying a suitable alternative site for the relocation of the existing telecommunications mast at Mill Lane.</p>			<p>B1, P1, S1, W1, A1, C1, L1</p>	<p>M1</p>	
<p>IO4.6: To promote and encourage the use of renewable energy technologies in existing and proposed building stock within the LAP area subject to consideration of environmental, conservation and visual requirements.</p>			<p>B1, S1, W1, A1, C1, L1</p>	<p>P1, M1</p>	
<p>Proposed Policies & Objectives Pollution and Environmental Services</p>					
<p>Policy 15: It is the policy of the Council to protect environmental quality in Leixlip through the implementation of European, national and regional policy and legislation relating to air quality, greenhouse gases, climate change, light pollution and noise pollution and waste management.</p>			<p>C1, L1</p>	<p>B1, P1, S1, W1, A1, M1</p>	

Objectives It shall be an objective of the Council:				
IS.1: To adequately maintain recycling facilities and to secure the provision of additional facilities, as required, including in conjunction with development.			B1,S1,C1,L1	P1,M1,W1,A1
IS.2: It is the policy of Kildare County Council to avoid, prevent or reduce harmful effects on human health and the environment as a whole though promoting the preservation of best ambient air quality with sustainable development.			S1,L1,W1,C1, M1	B1,P1,A1
Proposed Policies & Objectives Built Heritage				
Policy BH1: It is the policy of the Council to preserve and enhance the buildings identified on the Record of Protected Structures and to carefully consider any proposals for development that would affect the special value of such structures, including it's historic curtilage, both directly and indirectly.			B1,S1,W1,A1,M1	P1,C1,L1
Objectives It shall be the objective of the Council:				
BHO1.1: To ensure the protection of all structures, (or parts of structures) and the immediate surroundings including the curtilage and attendant grounds of structures contained in the Record of Protected Structures (refer to Table 10.1 and the Built Heritage Map).			B1,S1,W1,A1,M1	P1,C1,L1

<p>BHO1.2: TO acknowledge and promote awareness of the origins, historical development and cultural heritage of the town, to support high quality developments that relate to local heritage and to ensure that new development respects and is responsive to the cultural heritage of Leixlip.</p>			B1,S1,W1,A1,M1	P1,C1,L1	
<p>BHO1.3 To protect the landscape character, values, sensitivities, focal points and views in the Leixlip Plan Area, including those identified in the Kildare County Development Plan. This will include, inter alia, the following:</p> <p>a) the requirement of a Visual Impact Assessment for developments with potential to impact on areas of significant landscape character, value or sensitivity, including both urban and natural features, significant townscapes and historic buildings, as appropriate.</p> <p>b) Prohibit development that will block or interfere with a significant focal point or view. Where it is considered that a development may impact on focal points or views, have regard to the significance of any such impact and any appropriate mitigation measures that should be incorporated.</p>			S1,W1,A1,M1	B1,P1,C1,L1	
<p>BHO1.4 To address dereliction, vacancy and promote appropriate and sensitive reuse and rehabilitation of Protected</p>			B1,S1,W1,A1,M1	P1,C1, L1	

Structures.					Comments
BHO1.5 To support the actions and objectives of the County Kildare Heritage Plan.			B1,S1, W1, A1,L1,M1	C1	
Specific Policies and Objectives of the Draft Plan	Potential Negative Impact	Potentially Uncertain Impact	Potentially Neutral or No relationship	Potential Positive Impact	
BHO1.6 To support the implementation of the conservation plan for the restoration and management of Leixlip Spa in association with key stakeholders.			B1,S1,W1,A1,L1, M1	C1	
BHO1.7 To support the implementation of the conservation plan for the restoration and management of the Wonderful Barn and associated lands in association with key stakeholders.			B1,S1,W1,A1,L1,M1	P1,C1	
BHO1.8 To promote The Wonderful Barn as an integrated tourism attraction including the restoration of the main features of the complex and its historical landscape: (i) The re-arrangement of the existing access way. (ii) The immediate consolidation and eventual restoration of the historic buildings. (iii) The reinstatement of the walled garden and rear courtyard; (iv) The insertion of complementary commercial uses to ensure a sustainable future for the project.		C1,L1	B1,S1,W1,A1,M1	P1	

BHO1.9 To seek the protection of burial grounds within Leixlip in co-operation with agencies such as the Office of Public Works and the National Monuments Section of the Department of the Environment, Heritage and Local Government (DoEHLG) as appropriate.			B1,W1,A1,L1,M1	P1,S1,C1	
BHO1.10 To promote the restoration of the Boat House on the River Liffey where it meets the River Rye and to promote the area along the Liffey as a recreational amenity.			B1,S1,W1,A1,M1, P1,	C1, L1	
Proposed Policies & Objectives Architectural Conservation Area					
Policy BH2: It is the policy of the Council to preserve and enhance the historic character and visual setting of the Leixlip Architectural Conservation Area and to carefully consider any proposals for development that would affect the special value of the area.			B1,S1,W1,A1,M1	P1, C1, L1	
Objectives It shall be the objective of the Council:					
BHO2.1 To prepare a character statement appraisal and area specific policy objectives for the Leixlip ACA			B1, P1, S1,W1,A1,M1	C1,L1	
BHO2.2 To ensure that new development, including infill development, extensions and renovation works within or adjacent to the ACA preserve or enhance the special character			B1,S1,W1,A1,M1	P1,C1,L1	

and visual setting of the ACA including vistas, streetscapes, building line, fenestration patterns, architectural features.					Comments
BHO2.3 To have regard to the Kildare Shopfront Guidelines (2013) in the consideration of any proposals within the ACA providing that they contribute to the established pattern, scale, materials and proportions of the buildings within the ACA. Modern design that makes a positive contribution to this ACA will also be considered.			B1, S1,W1,A1,M1	P1,C1,L1	
BHO2.4 To support the retention, repair and re-use of materials which characterise the vernacular architecture of the ACA including stone, slate, timber windows and doors, and decorative render.			B1,S1,W1,A1,M1	P1,C1,L1	
BHO2.5 To address dereliction and promote appropriate and sensitive reuse and rehabilitation of buildings, building features and sites within the ACA.			B1,W1,A1,M1	P1,S1,C1,L1	
BHO2.6 To reduce and prevent visual and urban clutter within the ACA including, where appropriate, traffic management structures, utility structures and all signage.			B1,S1,W1,A1,M1	P1,C1,L1	
Specific Policies and Objectives of the Draft Plan	Potential Negative Impact	Potentially Uncertain Impact	Potentially Neutral or No relationship	Potential Positive Impact	
Proposed Policies & Objectives Archaeological Heritage					

<p>Policy BH3: It is the policy of the LAP to safeguard the archaeological heritage of the LAP area and avoid impacts on sites, monuments features or objects of significant historical or archaeological interest.</p>			B1, S1, W1, A1, M1	P1,C1, L1					
<p>Objectives It shall be the objective of the Council:</p>									
<p>BHO3.1 To protect and preserve those items of archaeological interest as listed in Table 10.2 and shown on the Built Heritage Map from inappropriate development that would adversely affect and/or detract from the interpretation and setting of these sites.</p>			B1, S1, W1,A1, M1	P1,C1,L1					
<p>BHO3.2 To protect the historic core of Leixlip town and retain where possible the existing street layout, historic building lines and traditional plot widths where these derive from medieval or earlier origins</p>			B1,S1,W1,A1,M1	P1,C1,L1					
<p>BHO3.3 To ensure that development proposals contribute towards the protection and preservation of the archaeological value of underwater or archaeological sites associated with the River Liffey and associated features</p>			B1,S1,W1, A1,M1	P1,C1,L1					
<p>Proposed Policies & Objectives Natural Heritage</p>									
<p>Policy NH1: It is the policy of the Council to support the protection of species and habitats that are designated under the</p>			P1,A1,C1,L1,M1	B1,S1,W1					

<p>Wildlife Acts 1976 and 2000, the Birds Directive 1979 and the Habitats Directive 1992 as well as areas of high local biodiversity value and to ensure developments with potential to impact the integrity of the Natura 2000 network will be subject to Appropriate Assessment.</p>					
<p>Objectives It shall be the objective of the Council:</p>					
<p>NHO1.1 To protect, conserve and manage the Rye Water Valley/Carton SAC and contribute to the protection of the ecological, visual, recreational, environmental and amenity value of the Royal Canal pNHA and Liffey Valley pNHA.</p>			<p>A1,C1, M1</p>	<p>B1,P1,S1,W1,L1</p>	
<p>NHO1.2: To ensure an Appropriate Assessment, in accordance with Article 6(3) and Article 6(4) of the Habitats Directive and with DEHLG guidance (2009), is carried out in respect of any plan or project not directly connected with or necessary to the management of the Rye Water Valley/Carton SAC, to determine the likelihood of the plan or project having a significant effect on the site, either individually or in combination with other plans or projects and to ensure that projects which may give rise to significant cumulative, direct, indirect or secondary impacts on the Rye Water Valley/Carton SAC will not be permitted (either individually or in combination</p>			<p>P1, A1, C1,L1, M1</p>	<p>B1,S1,W1</p>	

<p>with other plans or projects) unless it can be demonstrated:</p> <ul style="list-style-type: none"> • There are no less damaging alternative solutions available, • There are imperative reasons of overriding public interest requiring the project to proceed; and • Adequate compensatory measures have been identified which can be put in place. 					
<p>NHO1.3 To ensure that any proposal for development within or adjacent to the Royal Canal (pNHA) and Liffey Valley (pNHA) is located and designed to minimise its impact on the biodiversity, geological, water and landscape value of the pNHA.</p>			A1, C1, M1	B1,P1,S1,W1,L1	
<p>NHO1.4 All planning applications for development within or adjacent to the Royal Canal (pNHA) and Liffey Valley (pNHA) should be accompanied by an Ecological Impact Assessment (EclA) prepared by a suitably qualified professional.</p>			P1,A1,C1,L1,M1	B1,S1,W1	
<p>NHO1.5 To identify, protect, conserve and enhance wherever possible, wildlife habitats and species of local importance, not otherwise protected by legislation. Such habitats would include woodland, river, grassland areas and field boundaries (hedgerows, stone walls and ditches). Such features form part of a</p>			P1,A1,C1,L1,M1	B1,S1,W1	

network of habitats and corridors, which allow wildlife to exist and flourish and contribute to compliance with Article 10 of the Habitats Directive.					
NHO1.6 To protect and conserve the integrity of soils that support the rich biodiversity and ecological networks in Leixlip.			A1,L1,C1,M1	B1,P1,S1,W1	
Proposed Policies and Objectives Green Infrastructure					
Policy GI 1 It is the policy of the Council to protect, enhance and further develop the Green Infrastructure network in Leixlip to provide a shared space for amenity, recreation and biodiversity.		B1,S1,W1	A1,M1,C1	P1,L1	
Objectives It shall be the objective of the Council:					
GIO1.1 To integrate Green Infrastructure as an essential component of new developments and restrict development that would fragment the Green Infrastructure Network.			S1,W1,A1,C1,M1	P1,L1	
GIO1.2 To protect identified key Green Infrastructure and 'Stepping Stone' habitats (according to their value) and enhance where possible. Site specific ecology surveys should be carried out where appropriate to inform proposed development and assess and mitigate potential impacts. The need for site specific ecological surveys will be determined on a case by case basis as part of the planning consent process.			B1,S1,W1,A1,C1,M1	P1,L1	

Specific Policies and Objectives of the Draft Plan	Potential Negative Impact	Potentially Uncertain Impact	Potentially Neutral or No relationship	Potential Positive Impact	Comments
GIO1.3 To ensure key trees, woodlands and high value hedgerows identified in the Leixlip Habitat Survey, and the linkages they provide to larger areas of green infrastructure and the wider countryside, are retained where appropriate and integrated into the design of new developments where appropriate.			S1,W1,C1,M1	B1,P1,A1,L1	
GIO1.4 To provide for Eco-ducts as part of any new pedestrian and cycle links across the River Rye, Royal Canal and railway, thereby facilitating the free movement of people and species through the LAP area. Any such proposals for development which would be likely to have a significant effect on nature conservation sites and / or habitats or species of high conservation value will only be approved if it can be ascertained, by means of Appropriate Assessment or other ecological assessment, that the integrity of these sites will not be adversely affected.		B1,S1,W1,L1	C1	P1,A1,M1	
GIO1.5 To maintain a green infrastructure protection zone of not less than 15 meters from the top bank of water courses in Leixlip with the full extent of the protection zone to be determined on a case by case basis by the Planning Authority, based on site specific			P1,W1,A1,C1,L1,M1	B1,S1	

characteristics and sensitivities. Strategic green routes and trails will be open for consideration within the protection zone, subject to appropriate safeguards and assessments. Proposals for development which would be likely to have a significant effect on nature conservation –sites and / or habitats or species of high conservation value will only be approved if it can be ascertained, by means of Appropriate Assessment or other ecological assessment, that the integrity of these sites will not be adversely affected.					
GIO1.6 To incorporate items of historical or heritage importance within the Green Infrastructure, as amenity features.			B1,S1,W1,A1,C1,L1,M1	P1	
GIO1.7 To seek to preserve, protect and enhance trees (including woodlands) of special amenity, nature conservation or landscape value.			B1,W1,A1,C1,M1	P1,S1,L1	
GIO1.8: To seek to protect trees that have a particular local amenity or conservation value.			A1,C1,M1	B1, P1,S1,W1,L1	
GIO1.9: To promote the appropriate tree planting within of public open spaces along transport networks and in the public realm.			A1,C1,M1	B1,P1,S1,W1,L1	
Proposed Policies and Objectives Open Space					
Policy OS1: It is the policy of the Council			B1,M1,S1,W1,A1,C1	P1,L1	

to provide for a hierarchy of high quality multi-functional public open spaces within Leixlip, and to preserve and protect such spaces through the appropriate zoning of lands.					
Objectives It shall be the objective of the Council:					
OSO1.1: To explore the feasibility of, develop and/or improve linkages and connections between the network of open spaces in Leixlip, without compromising the biodiversity of the location: (i) Along the northern bank of the Rye from Distillery Lane to Woodside Estate and Confey Community College; (ii) Along the River Liffey, from Leixlip Town Centre through Leixlip Castle, to the Salmon Leap Canoe Club; and (iii) Between Silleachain Valley and St. Catherine's Park.			B1,S1,W1,A1,C1	P1,L1,M1	
OSO1.2: To continue to facilitate and promote community-managed garden/allotments.			B1,S1,W1,A1,C1,M1	P1,L1	
OSO1.3: To promote and provide amenities /features such as picnic tables, playgrounds or outdoor gym equipment facilities in existing open spaces.			B1,S1,W1,A1,C1	P1,L1,M1	
OSO1.4: To investigate the potential to include new play facilities within open green space adjacent to the Canal Walk/Leixlip Spa.			B1,S1,W1,A1,C1	P1,L1,M1	

OSO1.5: To develop the amenity lands at Lough na Mona to cater for active recreation.		B1,S1	W1,A1,C1	P1,L1	
OSO1.6: To cooperate with key stakeholders in the development (where appropriate) of the Rye River, Royal Canal and other areas within Leixlip for recreational purposes: (i) ESB regarding the recreational potential of the reservoir at Backweston. (ii) Waterways Ireland regarding the Royal Canal			S1,W1,A1,C1,L1	B1,M1,P2	
OSO1.7: To facilitate and promote the provision of a public park at The Wonderful Barn.			B1, S1,W1,A1,C1	P1,L1,M1	
OSO1.8: To pursue the creation of a Liffey Valley Regional Park together with Fingal and South Dublin County Councils.			B1,S1,W1,A1,C1	P1,M1,L1	
OSO1.9 To maintain and protect the greenbelt between Leixlip, Celbridge and Maynooth.			C1,M1	B1,P1,S1,W1,A1,L2	

9 Mitigation Measures

9.1 Introduction

The quality of the environment within plan area is an important issue for consideration by Kildare County Council. A green town is a healthy town. Protecting and enhancing open spaces for both biodiversity and recreational use has benefits for the town's sustainability and attractiveness as a place to live, work and visit. While it is a key priority of the Local Area Plan to consolidate Leixlip, this must be achieved by balancing the need for intensification of development with the need to protect and enhance vulnerable natural areas. This has been recognised throughout the SEA and Local Area Plan process and the Plan is framed within ideals of sustainability throughout its vibrant communities, tourism economy and unique cultural and natural heritage.

Article 5 of the SEA Directive requires that mitigation measures be proposed for all significant adverse effects on the environment as a result of the implementation of the Local Area Plan. The SEA is an iterative process prepared in tandem with the formulation of the policies and objectives of the Draft Local Area Plan. While not always possible to achieve, it is the aim of the process to ensure that sensitive environmental receptors are given adequate and appropriate consideration throughout.

9.2 Mitigation Measures

As environmental considerations have informed all stages of the preparation of the Draft Leixlip LAP, the policies and objectives of the Plan have been framed to ensure that potential adverse impacts are avoided, eliminated or lessened to an acceptable level.

As a result of this informed iterative process, it is the finding of the assessment of the Draft Local Area Plan as presented in Chapter 8 of this SEA Report, that the full implementation of the Plan, will have a neutral to positive impact on the environment as a whole.

An initial review of the Draft LAP highlighted that the following changes should be considered in the drafting of the plan:

Objective/Policy	BSM Comments
<p>UCR1: To protect the quality, ambience and vitality of the traditional heart of Leixlip Town Centre so that it meets the retailing and service needs of the area, in addition to offering a pleasant and attractive environment for shopping, business, tourism, recreation and living.</p>	<p>Recommend the inclusion of the following text in blue:</p> <p>'To protect the quality, visual character, cultural heritage, ambience and vitality of the traditional heart of Leixlip Town Centre so that it meets the retailing and service needs of the area, in addition to offering a pleasant and attractive environment for shopping, business, tourism, recreation and living.'</p>
<p>UCR20.6 To encourage and facilitate the re-use and regeneration of derelict land and buildings for retail and other Town Centre uses, with due cognisance of the design requirements for the Architectural Conservation Area (ACA).</p>	<p>Suggest adding the following text in blue:</p> <p>To encourage and facilitate the re-use and regeneration of derelict land and buildings for retail and other Town Centre uses, with due cognisance of the character, heritage and</p>

	design requirements for the Architectural Conservation Area (ACA).
UCR20.7: To support the development of retail-led tourism associated with the natural and built heritage assets of Leixlip.	Consider additional protective policy on Architectural Heritage
EDTO1.3 To facilitate the expansion of the industries in Leixlip taking full account of the sensitivities of the receiving environment including ensuring that proposals for development which would be likely to have a significant effect on nature conservation-sites and /or habitats or species of high conservation value will only be approved if it can be ascertained, by means of an Appropriate Assessment or other ecological assessment. , that the integrity of these sites will not be adversely affected.	Consider revising to: To facilitate the expansion industries in Leixlip taking full account of the obligations of the Habitats and Birds Directive and the sensitivities of the receiving environment including ensuring that proposals for development that could potentially affect the integrity of the Natura 2000 network which would be likely to have a significant effect on nature conservation-sites and /or habitats or species of high conservation value will only be approved if it can be ascertained, by means of an Appropriate Assessment or other ecological assessment, that the integrity of these sites will not be adversely affected.
EDTO3.7 To support development of linkages between the historical demesne lands within and around the town to promote amenity linkage.	Consider additional protective policy on Built Heritage.
EDTO3.9 To promote the Wonderful Barn as an integrated tourism attraction to include complementary commercial uses.	Consider additional protective policy on Built Heritage.
MT01.3: To examine the feasibility of new pedestrian and cycle links across the Royal Canal and railway (refer to Transport map): (i) From the R149, across the Royal Canal/railway via Cope Bridge; (ii) From the R149, across the Royal Canal/railway, to Glendale Meadows; (iii) From the R149, across the Royal Canal/railway, to River Forest; (iv) From the R148 to Green Lane (though Leixlip Amenity Centre, across the Royal Canal, and through Glen Easton).	'Consider adding text: 'These options will be explored in further detail as part of the plan and subject to ecological analysis and assessment in order to safeguard the Rye Water Valley/Carton SAC.'
MT01.10 To support delivery of a pedestrian and cycle overpass of the M4 to link the Wonderful Barn at Leixlip to Castletown Demesne in Celbridge in consultation with TII.	Consider additional protective policy on Archaeological Heritage
Objective IO4.6: To promote and encourage the use of renewable energy technologies in existing and proposed building stock within the LAP area	Suggest the inclusion of the following text: To promote and encourage the use of renewable energy technologies in existing and

	<p>proposed building stock within the LAP area subject to consideration of environmental, conservation and visual requirements.</p>
<p>Policy 15:It is the policy of the Council to protect environmental quality in Leixlip through the implementation of European, national and regional policy and legislation relating to air quality, light pollution noise pollution and waste management.</p>	<p>Suggest the inclusion of the following text in blue:</p> <p>It is the policy of the Council to protect environmental quality in Leixlip through the implementation of European, national and regional policy and legislation relating to air quality, greenhouse gases, climate change, light pollution, noise pollution and waste management.</p>
<p>Air Quality</p>	<p>Recommend creation of new policy:</p> <p>It is the policy of Kildare County Council to avoid, prevent or reduce harmful effects on human health and the environment as a whole though promoting the preservation of best ambient air quality with sustainable development.</p>
<p>Visual Amenity</p>	<p>Recommend creation of new policy:</p> <p>Protect the landscape character, values, sensitivities, focal points and views in the Leixlip Plan Area, including those identified in the Kildare County Development Plan. This will include, inter alia, the following:</p> <p>a) the requirement of a Visual Impact Assessment for developments with potential to impact on areas of significant landscape character, value or sensitivity, including both urban and natural features, significant townscapes and historic buildings, as appropriate.</p> <p>c) Prohibit development that will block or interfere with a significant focal point or view. Where it is considered that a development may impact on focal points or views, have regard to the significance of any such impact and any appropriate mitigation measures that should be incorporated.</p>

These recommendations were reviewed by Kildare County Council who further refined and incorporated the comments into the Draft LAP.

This section outlines the mitigation measures identified, as necessary, to address the potential negative or uncertain impacts arising from the implementation of the proposed Draft LAP. While every effort will be taken to ensure that the impact of the Draft LAP on the environment is neutral to positive, particular unavoidable negative impacts may occur as a result of its implementation. The Environmental Report details mitigation measures to reduce or eliminate identified negative impacts.

Similarly, monitoring of the LAP, in accordance with the Planning and Development Act, 2000, as amended, will incorporate proposals to monitor various environmental receptors. A schedule of monitoring and reporting is set out in Table 9.1 in order to ensure that any unforeseen negative impact is identified at the earliest opportunity and subsequently appropriate mitigation measures are put in place to eliminate or at a minimum limit the level of impact to an acceptable degree.

In general terms, all proposals for development will be required to have due regard to the environmental considerations outlined the Kildare County Development Plan 2011-2017 and Kildare County Development Plan 2017-2023. At the project-level, Environmental Impact Assessment and Habitat Directive Assessment stage, detailed mitigation measures for all projects will also be developed.

Table 9.3: Mitigation Measures

Specific Policies and Objectives of the Draft Plan	Potential Negative Impact	Potentially Uncertain Impact	Comments
CSO1.4: To promote and support the development of an enterprise and employment campus at Collinstown, Leixlip. Development shall be plan led and subject to a masterplan prepared by or on behalf of, Kildare County Council, and should reflect the strategic location of this site in the north Kildare Economic Growth Cluster and in the GDA.		B1	Potential uncertain impacts on Biodiversity will be mitigated by Policy NH1, Objective NHO1.4 and NHO1.3 of the Draft Leixlip LAP.
Policy UCR2: It is the policy of the Council to support retail function of Leixlip through a combination of redevelopment of appropriate infill and opportunity sites in the town centre, expansion opportunities at neighbourhood centres and in conjunction with the development of new residential districts.		L1	Potential uncertain impacts on Landscape will be mitigated by Policy BH2 and UCR1 and Objective BHO1.3 and BHO2.6 of the Draft Leixlip LAP.
Objectives It shall be an objective of the Council:			
UCRO2.2: To support and facilitate the development of retail, retail services and niche retailing in the town centre area, including new/infill development and redevelopment of an appropriate scale.		C1	Potential uncertain impacts on cultural heritage will be mitigated by Policy UCR1 and Objective UCRO2.6 and BHO2.2 of the Draft Leixlip LAP
UCRO2.3: To support and facilitate extensions to the established retail centres at Confey and Louisa Bridges.		B1	Potential uncertain impacts on biodiversity will be mitigated by Policy NH1 and Objectives NHO1.1, NHO1.2, NHO1.3 and NHO1.4 of the Draft Leixlip LAP
UCRO2.5: To protect the primacy of the town centre as the core retail area in Leixlip, through the application of a sequential approach to retail development, in accordance with the Retail Planning Guidelines for Planning Authorities, DECLG (2012).		C1	Potential uncertain impacts on cultural heritage will be mitigated by Policy BH2 and Objectives BHO2.1, BHO2.2, BHO2.3, BHO2.4 and BHO2.6 of the Draft Leixlip LAP

UCRO2.7: To support the development of retail-led tourism associated with the natural and built heritage assets of Leixlip.		B1	Potential uncertain impacts on biodiversity will be mitigated by Policy NH1, Objective NHO1.4 and NHO1.3 of the Draft Leixlip LAP.
Proposed Policies & Objectives Public Realm			
Policy UCR3: It is the policy of the Council to actively encourage, support and facilitate environmental and public realm improvements in Leixlip to address environmental quality, urban design, safety, identity and traffic impact.		C1	Potential uncertain impacts on cultural heritage will be mitigated by Policy BH2 and Objectives BHO2.1, BHO2.2, BHO2.3, BHO2.4 and BHO2.6 of the Draft Leixlip LAP.
Objectives: It shall be an objective of the Council:			
UCRO3.6: To facilitate the extension, where appropriate, of the riverside walk along the northern bank of the River Liffey from Arthur Guinness Park to Liffey Bridge.	B1	S1, W1	Potential negative impacts on biodiversity will be mitigated by Policy NH1, Objective NHO1.4 and NHO1.3 of the Draft Leixlip LAP. Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP whilst potential uncertain impacts on water will be also mitigated by Policy Objective NHO1.1, NHO1.3 and NHO1.4 of the Draft Leixlip LAP.
UCRO3.7: To promote a multi-use and versatile environment for Arthur Guinness Square.		C1	Potential uncertain impacts on cultural heritage will be mitigated by Policy BH2, Objective BHO2.1, BHO1.2, BHO1.3 and BHO1.5 of the Draft Leixlip LAP.
UCRO3.8: To encourage incidental play at suitable locations along the river walkway; opportunities may be possible within riverside woodland adjacent Rye River Mall and at the riverside amenity at Arthur Guinness Park.	B1	W1	Potential negative impacts on biodiversity will be mitigated by Policy NH1 and Objective GIO1.7 of the Draft Leixlip LAP. Potential uncertain impacts on water will be mitigated by Objective GIO1.5 and Objective IO2.4 of the Draft Leixlip LAP
UCRO3.9: To investigate options to connect the Rye River Walkway to Main Street.		B1, W1, L1	Potential uncertain impacts on biodiversity and water will be mitigated by Objective NHO1.1, NHO1.2 and NHO1.4 of the

			<p>Draft Leixlip LAP</p> <p>Potential uncertain impacts on landscape will be mitigated by Policy Objective NHO1.1 and Policy BH2 of the Draft Leixlip LAP.</p>
EDTO1.2: To promote the provision of workspace units suitable for SMEs and start-up companies at Collinstown to offer opportunities associated with clustering and networking.		B1	Potential negative impacts on biodiversity will be mitigated by Policy NH1, Objective NHO1.4 and NHO1.3 of the Draft Leixlip LAP.
EDTO1.3 To facilitate the expansion of industries in Leixlip, taking full account of the obligations of the Habitats and Birds Directive and the sensitivities of the receiving environment including ensuring that proposals for development that could potentially affect the integrity of the Natura 2000 network which would be likely to have a significant effect on nature conservation-sites and /or habitats or species of high conservation value will only be approved if it can be ascertained, by means of an Appropriate Assessment or other ecological assessment, that the integrity of these sites will not be adversely affected.		S1,A1,L1	<p>Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP</p> <p>Potential uncertain impacts on Air and Climate will be mitigated by Policy I5 and Objective I5.2 of the Draft Leixlip LAP.</p> <p>Potential uncertain impacts on landscape will be mitigated by Objective BHO1.3 of the Draft Leixlip LAP.</p>
Policy EDT3: It is the policy of the Council, where commercial and industrial enterprise exist as non-conforming but long established uses, to support their continued operation and reasonable expansion, in accordance with the proper planning and sustainable development of the area, save where such a use would impact negatively on the economic and social wellbeing of the area and inhibit development that is in conformance with the land use zoning objective.		A1, L1	<p>Potential uncertain impacts on landscape will be mitigated by Objective BHO1.3 of the Draft Leixlip LAP.</p> <p>Potential uncertain impacts on Air and Climate will be mitigated by Policy I5 and Objective I5.2 of the Draft Leixlip LAP</p>
EDTO2.1: To support the continued operation and reasonable expansion of existing non-conforming uses,		A1	Potential uncertain impacts on Air and Climate will be mitigated by Policy I5 and Objective I5.2 of the Draft Leixlip

<p>provided as they do not:</p> <ul style="list-style-type: none"> • Result in loss of amenity to adjoining properties • Cause adverse impact on the environment • Cause adverse impact on the visual amenity or character of the area, or • Inhibit the development of adjoining land in conformance with its land use zoning objective 			LAP
Proposed Policies & Objectives Tourism			
<p>EDTO3.2 To support and facilitate the development of an integrated network of Greenways and Heritage Trails, including blueways/water trails, along suitable corridors along the River Liffey, River Rye, Royal Canal and to Castletown/Celbridge.</p>	B1	S1,W1, L1	<p>Potential negative impacts on biodiversity will be mitigated by Policy NH1 and Objectives NHO1.1, NHO1.2, NHO1.3, NHO1.4 and NHO1.5 of the Draft Leixlip LAP.</p> <p>Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP</p> <p>Potential uncertain impacts on landscape will be mitigated by Objective BHO1.3 of the Draft Leixlip LAP.</p> <p>Potential uncertain impacts on water will be mitigated by Objective GIO1.5 and Objective IO2.4 of the Draft Leixlip LAP</p>
<p>EDTO3.3 To encourage the development of tourism activities such as waterways activities, agri-tourism, green/ecotourism, niche retailing, food markets, local and other craft type activities so as to diversify the tourism product in Leixlip.</p>	B1	S1,W1	<p>Potential negative impacts on biodiversity will be mitigated by Policy NH1 and Objectives NHO1.1, NHO1.2, NHO1.3, NHO1.4 and NHO1.5 of the Draft Leixlip LAP.</p> <p>Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP</p> <p>Potential uncertain impacts on water will be mitigated by Objective GIO1.5 and Objective IO2.4 of the Draft Leixlip LAP.</p>

<p>EDTO3.6 To work with Waterways Ireland and the ESB in supporting the development of angling and canoeing/kayaking infrastructure and facilities for tourism in proximity to appropriate watercourses or water bodies, subject to an appropriate scale of development having regard to the pertaining environmental conditions and sensitivities, scenic amenity and availability of services.</p>		B1, W1	<p>Potential uncertain impacts on biodiversity will be mitigated by Policy NH1 and Objectives NHO1.1, NHO1.2, NHO1.3, NHO1.4 and NHO1.5 of the Draft Leixlip LAP.</p> <p>Potential uncertain impacts on water will be mitigated by Objective GIO1.5 and Objective IO2.4 of the Draft Leixlip LAP</p>
<p>EDTO3.7 To support development of linkages between the historical demesne lands within and around the town to promote amenity linkage.</p>		B1, S1	<p>Potential uncertain impacts on biodiversity will be mitigated by Policy NH1 and NHO1.6 of the Draft LAP</p> <p>Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP</p>
<p>EDTO3.8 To support the development of a heritage trail through the town, linking the town centre to The Wonderful Barn, Castletown House and other historical demesne lands within and around the town.</p>		B1, S1, C1	<p>Potential uncertain impacts on biodiversity will be mitigated by Policy NH1 and NHO1.6 of the Draft LAP</p> <p>Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP</p> <p>Potential uncertain impacts on cultural heritage will be mitigated by Policy BH3 and BHO3.1 of the Draft LAP</p>
<p>EDTO3.9 To promote the Wonderful Barn as an integrated tourism attraction to include complementary commercial uses.</p>		C1	<p>Potential uncertain impacts on cultural heritage will be mitigated by Policy BH3 and BHO3.1 of the Draft LAP</p>
<p>EDTO3.10 To support and encourage further appropriate development associated with the Arthur's Way heritage trail.</p>		B1, C1	<p>Potential uncertain impacts on cultural heritage will be mitigated by Policy BH3 and BHO3.1 of the Draft LAP</p> <p>Potential uncertain impacts on biodiversity will be mitigated by Policy GIO1.1, GIO1.2, GIO1.3 and GIO1.7 of the Draft Leixlip LAP.</p>
<p>Policy HC3: It is the policy of the Council to facilitate and secure the provision of social infrastructure to support existing and new communities within the LAP</p>		L1	<p>Potential uncertain impacts on landscape will be mitigated by Objective BHO1.3 of the Draft Leixlip LAP.</p>

area, in a manner which provides flexibility to respond to varied and changing community needs.			
HCO4.1: To support and facilitate a planned extension to the existing graveyard at Confey.		S1, W1	Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP Potential uncertain impacts will be mitigated by Policy I2 and Objective IO2.1
Proposed Policies & Objectives Walking & Cycling			
Policy MT1: It is the policy of the Council to provide improved connectivity across the River Rye, Royal Canal and railway and between the town Centre, schools, recreational facilities, railway stations, major employers, and residential areas within Leixlip, and enhanced links with Maynooth and Celbridge.		S1,W1	Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP Potential uncertain impacts on water will be mitigated by Objective GIO1.5 and Objective IO2.4 of the Draft Leixlip LAP
Objectives It shall be an objective of the Council:			
MTO1.1: To work with the NTA to implement the Great Dublin Area Cycle Network Plan proposals for Leixlip, including the North Kildare Cycleway (Dublin – Galway) subject to detailed engineering design and the mitigation measures presented in the SEA and Natura Impact Statement accompanying the NTA Plan, including the North Kildare Cycleway (Dublin – Galway).		B1,S1	Potential negative impacts on biodiversity will be mitigated by Policy NH1 and Objectives NHO1.1, NHO1.2, NHO1.3, NHO1.4 and NHO1.5 of the Draft Leixlip LAP. Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP
MTO1.2: To improve and maintain the following routes for use by both pedestrians and cyclists: (i) Silleachain Lane; (ii) Distillery Lane; (iii) Rye Valley to the Glen; and (iv) Mill Lane to St Catherine’s Park.		B1,S1,W1	Potential negative impacts on biodiversity will be mitigated by Policy NH1 and Objectives NHO1.1, NHO1.2, NHO1.3, NHO1.4 and NHO1.5 of the Draft Leixlip LAP. Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP

<p>These options will be explored in further detail as part of the plan and subject to ecological analysis and assessment in order to safeguard the Rye Water Valley/Carnton SAC.</p>			<p>Potential uncertain impacts on water will be mitigated by Objective GIO1.5 and Objective IO2.4 of the Draft Leixlip LAP</p>
<p>MTO1.3: To examine the feasibility of new pedestrian and cycle links across the Royal Canal and railway (refer to Transport map):</p> <p>(i) From the R149, across the Royal Canal/railway via Cope Bridge;</p> <p>(ii) From the R149, across the Royal Canal/railway, to Glendale Meadows;</p> <p>(iii) From the R149, across the Royal Canal/railway, to River Forest;</p> <p>(iv) From the R148 to Green Lane (though Leixlip Amenity Centre, across the Royal Canal, and through Glen Easton).</p>		<p>B1,S1,W1</p>	<p>Potential negative impacts on biodiversity will be mitigated by Policy NH1 and Objectives NHO1.1, NHO1.2, NHO1.3, NHO1.4 and NHO1.5 of the Draft Leixlip LAP.</p> <p>Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP</p> <p>Potential uncertain impacts on water will be mitigated by Objective GIO1.5 and Objective IO2.4 of the Draft Leixlip LAP</p>
<p>MTO1.4: To examine options for a new pedestrian and cycle link across the Rye River linking Confey Community College to Ryevale Lawns. These options will be explored in further detail as part of the plan and subject to ecological analysis and assessment in order to safeguard the Rye Water Valley/Carnton SAC. Proposals for development which would be likely to have a significant effect on nature conservation-sites and /or habitats or species of high conservation value will only be approved if it can be ascertained, by means of an Appropriate Assessment or other ecological assessment, that the integrity of these sites will not be adversely affected.</p>		<p>B1,S1,W1,L1</p>	<p>Potential negative impacts on biodiversity will be mitigated by Policy NH1 and Objectives NHO1.1, NHO1.2, NHO1.3, NHO1.4 and NHO1.5 of the Draft Leixlip LAP.</p> <p>Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP</p> <p>Potential uncertain impacts on water will be mitigated by Policy NH1, Objective GIO1.5, NHO1.1, NHO1.2, NHO1.3, NHO1.4 and NHO1.5 of the Leixlip LAP.</p>
<p>MTO1.5: To facilitate pedestrian and cycle links from Green Lane to the Wonderful Barn through Easton Meadows and new residential development.</p>		<p>S1,B1, C1</p>	<p>Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP.</p>

			<p>Potential negative impacts on biodiversity will be mitigated by Policy NH1 and Objectives NHO1.1, NHO1.2, NHO1.3, NHO1.4 and NHO1.5 of the Draft Leixlip LAP.</p> <p>Potential uncertain impacts on cultural heritage will be mitigated by Policy BH3 and BHO3.1 of the Draft LAP.</p>
<p>MT01.6: To provide adequate, secure and dry bicycle parking facilities at appropriate locations at:</p> <p>(i) In the town centre (Abbey Square); and</p> <p>(ii) Near heritage and amenity destinations.</p>		C1	<p>Potential uncertain impacts on cultural heritage will be mitigated by Policy BH3 and BHO3.1 of the Draft LAP</p>
<p>MT01.8 To support delivery of a pedestrian and cycle overpass of the M4 to link The Wonderful Barn at Leixlip to Castletown Demesne in Celbridge in consultation with Transport Infrastructure Ireland.</p>		C1, L1	<p>Potential uncertain impacts on landscape will be mitigated by Objective BHO1.3 of the Draft Leixlip LAP.</p> <p>Potential uncertain impacts on cultural heritage will be mitigated by Policy BH3 and BHO3.1 of the Draft LAP</p>
<p>Objective</p> <p>It is the objective of the Council:</p>			
<p>MT02.1: To secure the implementation of major public transport projects identified in the Transport Strategy for the Greater Dublin Area 2016-2035.</p>		B1	<p>Potential negative impacts on biodiversity will be mitigated by Policy NH1 and Objectives NHO1.1, NHO1.2, NHO1.3, NHO1.4 and NHO1.5 of the Draft Leixlip LAP.</p>
<p>MT02.3: To support and facilitate the delivery of electrification and upgrading of the Dublin – Sligo rail line from Connolly Station to Maynooth, including the upgrading of Cope Bridge.</p>		L1	<p>Potential uncertain impacts on landscape will be mitigated by Objective BHO1.3 of the Draft Leixlip LAP.</p>
<p>Proposed Policies & Objectives</p> <p>Transportation</p>			
<p>Policy MT3: It is the policy of the Council to maintain and improve and extend the local road network in and around Leixlip to ensure a high standard of road accessibility, connectivity, quality and safety.</p>		S1,W1,A1	<p>Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP</p> <p>Potential uncertain impacts on water will be mitigated by Objective IO2.4 of the Draft Leixlip LAP</p>

			Potential uncertain impacts on Air and Climate will be mitigated by Policy I5 and Objective I5.2 of the Draft Leixlip LAP
Objective It is the objective of the Council:			
MTO3.1 To secure the implementation of the following road improvement schemes, subject to the availability of funding and environmental and conservation requirements: (i) The realignment of the R148 (Maynooth) at Collinstown in line with the approved Part 8. (ii) The replacement/upgrading of Cope Bridge. (v) The improvement of the junction of Main Street and Mill Lane.		B1,S1,W1	Potential uncertain impacts on biodiversity will be mitigated by Objective NHO1.3, NHO1.4 and NHO1.5 of the Draft Leixlip LAP. Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP Potential uncertain impacts on water will be mitigated by Objective IO2.4 of the Draft Leixlip LAP
MTO3.2 To investigate the feasibility of the following road improvement schemes, to include an investigation of alternatives: (iv) The realignment and improvement of the R149 (Confey Road) between the L1014 (Kellystown Lane) and the county border with Fingal. (v) (The upgrading of the L1014 (Kellystown Lane) or an alternative north-south connection west of the R149.		B1,S1,W1,L1	Potential uncertain impacts on biodiversity will be mitigated by Objective NHO1.3, NHO1.4 and NHO1.5 of the Draft Leixlip LAP. Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP. Potential uncertain impacts on water will be mitigated by Objective IO2.4 and IO2.5 of the Draft Leixlip LAP. Potential uncertain impacts on landscape will be mitigated by Objective BHO1.3 of the Draft Leixlip LAP.
MTO3.5 To work with key stakeholders as well as Fingal County Council and South Dublin County Council to examine the feasibility of new strategic road infrastructure linking the M4 and M3 and servicing the north of the town.	A1	B1,S1	Potential negative impacts on Air and Climate will be mitigated by Policy I5 and Objective I5.2 of the Draft Leixlip LAP. Potential uncertain impacts on biodiversity will be mitigated by Objective NHO1.3, NHO1.4 and NHO1.5 of the Draft

			Leixlip LAP Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP
MTO3.8 To investigate the provision of additional on-street and off street public car parking in the town centre.		A1	Potential uncertain impacts on Air and Climate will be mitigated by Policy I5 and Objective I5.2 of the Draft Leixlip LAP.
IO4.3: To seek the undergrounding of all electricity, telephone and television cables in the town.		B1,S1	Potential uncertain impacts on biodiversity will be mitigated by Objective NHO1.3, NHO1.4 and NHO1.5 of the Draft Leixlip LAP Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP
IO4.4: To discourage a proliferation of above ground utility boxes in the town and to seek screening measures in conjunction with the provision of such structures.		S1	Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP
BHO1.8 To promote The Wonderful Barn as an integrated tourism attraction including the restoration of the main features of the complex and its historical landscape: (v) The re-arrangement of the existing access way to merge with the historic entrance spatial sequence. (vi) The immediate consolidation and eventual restoration of the historic buildings. (vii) The reinstatement of the walled garden and rear courtyard; and (viii) The insertion of complementary commercial uses to ensure a sustainable future for the project.		C1,L1	Potential uncertain impacts on cultural heritage will be mitigated by Policy BH3 and BHO3.1 of the Draft LAP
Policy GI 1 It is the policy of the Council to protect, enhance and further develop the Green Infrastructure		B1,S1,W1	Potential uncertain impacts on biodiversity will be mitigated by Objective NHO1.4 and NHO1.5, and GIO1.7 of the Draft

network in Leixlip to provide a shared space for amenity, recreation and biodiversity.			<p>Leixlip LAP</p> <p>Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP</p> <p>Potential uncertain impacts on water will be mitigated by Objective IO2.4 and IO2.5 of the Draft Leixlip LAP.</p>
GIO1.4 To provide for Eco-ducts as part of any new pedestrian and cycle links across the River Rye, Royal Canal and railway, thereby facilitating the free movement of people and species through the LAP area.		B1,S1,W1,L1	<p>Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP</p> <p>Potential uncertain impacts on water will be mitigated by Objective GIO1.5 and Objective IO2.4 of the Draft Leixlip LAP</p>
OSO1.5: To develop the amenity lands at Lough na Mona to cater for active recreation.		B1,S1	<p>Potential uncertain impacts on biodiversity will be mitigated by Policy GI 1 and GIO1.1 and GIO 1.2 of the Draft Leixlip LAP</p> <p>Potential uncertain impacts on soils will be mitigated by Objective NHO1.6 of the Draft Leixlip LAP.</p>

10 Monitoring Programme

10.1 Introduction

Monitoring of the proposed Draft LAP and its implications on the environment is paramount to ensure that the environment is not adversely affected through its implementation. Under Article 10 of the SEA Directive, monitoring must be carried out of the significant environmental effects directly related to the implementation of the Plan *“in order to, inter alia, identify at an early stage unforeseen adverse effects and to be able to undertake appropriate remedial action.”* The SEA Guidelines state that monitoring should concentrate on likely significant environmental effects, which have been identified in the Environmental Report, and measures identified as necessary to avoid, reduce and offset any significant adverse effects.

10.2 Monitoring Indicators

Baseline monitoring is proposed on a series of indicators which measure changes in the environment, especially changes which are critical in terms of environmental quality, for example water or air pollution levels. These indicators aim to simplify complex interrelationships and provide information about environmental issues which is easy to understand. A list of environmental indicators is provided in Table 10.1. The indicators are based on the Strategic Environmental Objectives presented in Chapter 6 and have been derived from knowledge of the existing environmental issues within the Draft plan area and also from legislation, guidelines and higher level plans.

It is considered that a monitoring report on the implementation of the policies and objectives within the Draft LAP is important for the on-going and future implementation of the Plan. It is also considered appropriate that the monitoring programme for the implementation of the policies and objectives within the Draft LAP is integrated with the monitoring programme for the statutory development plans for Kildare County.

Environmental indicator assessment during monitoring can show positive/neutral impacts or negative impacts on the environment. Where an indicator value highlights a positive/neutral impact on the environment, it is likely that the policies of the LAP are well defined with regard to the environment. Conversely, where the policies of the Draft LAP have a negative impact on the environment, it may be necessary to review the policies or objectives of the plan or to take some other form of intervention. For example, if an objective or policy is having a significant adverse impact, a change may be considered during the lifetime of the Plan.

10.3 Sources

Measurements for indicators generally come from existing monitoring sources. Existing monitoring sources include those maintained by the relevant authorities including the National Transport Authority, the Environmental Protection Agency, the National Parks and Wildlife Service and the Central Statistics Office.

The output of lower-tier environmental assessment and decision making – including a review of project approvals granted and associated documents – will also be utilised as part of the Monitoring Programme.

Where significant effects - including positive, negative, cumulative and indirect - have the potential to occur as a result of the undertaking of individual projects or multiple individual projects, such instances should be identified and recorded and should feed into the monitoring evaluation.

Table 10.1 Monitoring Environmental Indicators

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
BIODIVERSITY, FLORA & FAUNA	<ul style="list-style-type: none"> • Number and extent of Protected Sites • Areas actively managed for conservation • Population and range of Protected Species • Achievement of the Objectives of Biodiversity Plans 	<ul style="list-style-type: none"> • Consider siting of new development on non-sensitive sites. • Improve/conservate and protect all designated sites and species within and adjacent to the Plan area • Deliver the requirement of the Habitats Directive (Article 4, Paragraph 4) for the maintenance or restoration of annexed habitats and species within SACs at a “favourable conservation status. • Promote the maintenance and, as appropriate, achievement of favourable conservation status of habitats and species, in association with the NPWS and other stakeholders. • Protect SPAs, Annex I bird species, and regularly occurring migratory bird species and their habitats, and avoid pollution or deterioration of important bird habitats outside SPAs. • Improve the ecological coherence of Natura 2000 by encouraging the management of, maintaining, and where appropriate developing, features of the landscape which are of major importance for wild fauna and flora. Such features are those which, by virtue of their linear and continuous structure (such as rivers with their banks or the traditional 	Kildare County Council, National Parks & Wildlife, Dept of Housing, Planning, Community and Local Government.	<p>Monitoring of environmental likely significant effects on a project by project basis as particular elements of the plan are developed and advanced.</p> <p>National Monitoring Report under Article 12 of the Birds Directive. (c. every 6 years).</p>

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
		<p>systems for marking field boundaries) or their function as stepping stones (such as ponds or small woods), are essential for the migration, dispersal and genetic exchange of wild species</p> <ul style="list-style-type: none"> Protect NHAs, National Parks, Nature Reserves, Wildfowl Sanctuaries, Refuges for Fauna or Flora and sites proposed for designation. 		
POPULATION & HUMAN HEALTH	<ul style="list-style-type: none"> Census population data Rates of Unemployment per area % increase in housing (number and type) 	<ul style="list-style-type: none"> Minimise population exposure to high levels of noise, vibration and air pollution Increase modal shift to public transport Co-ordinate land use and transportation policies Improve access to recreation opportunities 	Kildare County Council, CSO, DHPCLG	CSO data every four years. On-going regular monitoring on increase in housing.
SOILS & GEOLOGY	<ul style="list-style-type: none"> Rates of re-use / recycling of construction waste Rates of cement / concrete production Rates of brownfield site and contaminated land reuse and development Rates of greenfield development 	<ul style="list-style-type: none"> Prevent pollution of soil through adoption of appropriate environmental protection procedures during construction and maintenance works on site. Ensure polluting substances are appropriately stored and banded. Ensure appropriate management of existing contaminated soil in accordance with the requirements of current waste legislation. Re-use of brownfield lands, rather than developing Greenfield lands, where possible. Minimise the consumption of non-renewable sand, gravel and rock deposits. 	Kildare County Council, EPA	<p>Internal monitoring of likely significant environmental effects on a project by project basis</p> <p>Review of CORINE mapping (every c.5 years).</p> <p>Annual reviewing of brownfield rates</p>

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
WATER	<ul style="list-style-type: none"> • Compliance of potable water sources to water quality regulations • Compliance of surface waters with national and international standards • Potable and wastewater treatment capacities versus population • % of wastewater achieving tertiary treatment • Achievement of the Objectives of the River Basin Management Plans • Amount of new developments within flood plains • Annual costs of damage related to flood events 	<ul style="list-style-type: none"> • Support the achievement of “good” ecological and chemical status/potential of waterbodies in accordance with the Water Framework Directive. • Minimise flood risk through appropriate management of flood vulnerable zones. • Promote sustainable drainage practices to improve water quality and flow. 	Kildare County Council, OPW, EPA	On-going regular monitoring supplemented by data arising from development and delivery of measures within the Plan.
AIR QUALITY, CLIMATE & NOISE	<ul style="list-style-type: none"> • Traffic, Transport and Vehicular survey data • National and region specific emission data • Compliance with national standards • Reduction in greenhouse gas emissions • Number and extent of emission licensed facilities • Number of energy / renewable energy 	<ul style="list-style-type: none"> • Minimise air and noise emissions during construction and operation of new developments. • Promote minimisation of greenhouse gas emissions to the atmosphere • Limiting and adapting to climate change 	Kildare County Council, EPA	On-going regular monitoring supplemented by data arising from development and delivery of the measures within the plan (every c.2 years).

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
	<ul style="list-style-type: none"> production facilities Rates of energy / renewable energy consumption 			
ARCHAEOLOGICAL, ARCHITECTURAL AND CULTURAL HERITAGE	<ul style="list-style-type: none"> Updating of inventories to include new sites / features Achieving the objectives of development plans regarding heritage protection Range and extent of areas of heritage potential Range and extent of areas of special planning controls 	<ul style="list-style-type: none"> Regeneration of derelict and underutilised heritage sites Improve appearance of areas with particular townscape character Improve protection for protected archaeological sites and monuments and their settings, protected structures and conservation areas and areas of archaeological potential Enhance access to sites of heritage interest 	Kildare County Council, NPWS, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs	Monitoring of Statutory Consultee inputs on environmental effects as particular elements of the LAP are developed and advanced.
LANDSCAPE	<ul style="list-style-type: none"> Range and extent of Amenity Landscapes Rates of development within designated landscapes Rates of urban expansion Rates of deforestation Rates of agricultural land re-development % change of land use from rural to urban 	<ul style="list-style-type: none"> Improve protection for landscapes of recognised quality Maintain clear urban/rural distinctions Enhance provision of, and access to, green space in urban areas Ensure development is sensitive to its surroundings 	Kildare County Council, private developers/ landowners	Monitoring of Statutory Consultee inputs on environmental effects as particular elements of the Draft LAP are developed and advanced.
MATERIAL ASSETS	<ul style="list-style-type: none"> Location / level of Infrastructure Achievement of 	<ul style="list-style-type: none"> Improve availability and accessibility of commercially provided facilities and public services 	Kildare County Council	

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
	development plan objectives; <ul style="list-style-type: none"> • Rates of deprivation • Rate of waste disposal to landfill statistics • Range and extent of recycling facilities and services • Rates of recycling 	<ul style="list-style-type: none"> • Increase local employment opportunities • Improve efficiencies of transport, energy and communication infrastructure • Promotion of sustainable transport infrastructure i.e. increased public transport. • Reduce the generation of waste and adopt a sustainable approach to waste management. 		

EPA: Environmental Protection Agency
 NPWS: National Parks and Wildlife Service

DAHRRGA: Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs
 DHPCLG: Department of Housing, Planning, Community and Local Government

11 CONCLUSION

The Draft Leixlip LAP 2017-2023, its policies and objectives are key to development of a sustainable development and growth of Leixlip and its environs. The Draft LAP sets out an overall strategy for the proper planning and sustainable development of Leixlip in the context of the Kildare County Development Plan 2017-2023 and the Regional Planning Guidelines for the Greater Dublin Area 2010-2022 over the next 6 years.

The Strategic Environmental Assessment process has been carried out in conjunction with the Stage 2 Appropriate Assessment, a Strategic Flood Risk Assessment (SFRA) and the preparation of the Draft LAP itself. This allows for an early indication of the potential environmental effects likely to occur as a result of the implementation of the policies and objectives within the Plan. As a result, changes or alterations to the Draft Leixlip LAP are made throughout the course of its preparation. The benefit of preparing the Draft Leixlip LAP, the AA, the SFRA and the Environment Report simultaneously ensures that these issues are highlighted at an early stage in the process. This allows the potential negative impacts of the plan to be predicted early on, evaluated and effectively prevented or mitigated.

The objectives of the Draft Plan were assessed against the Strategic Environmental Objectives and indicate that the full implementation of the Draft Plan will not result in a significant negative or adverse impact on the environmental resources within the plan area boundary. As a result the Draft LAP will have a neutral to positive impact on the environment as a whole.

Where the SEA has found potential for negative impacts on the environment as a result of the implementation of the Draft Leixlip LAP, mitigation as well as enhancement measures have been proposed. The implementation of these measures, coupled with the monitoring procedures will ensure the Draft Leixlip LAP is acceptable from an environmental perspective.

In summary, the assessment of the Draft Leixlip LAP has concluded that its policies and objectives are acceptable and represent a balanced and fair approach to the proper planning and sustainable development of Leixlip. Monitoring of the Leixlip LAP throughout its lifetime will ensure that any potential adverse environmental impacts, unforeseen at this stage will be identified early, so as to prevent any deterioration of the environment. This Draft Leixlip LAP 2017-2023, as currently presented, can contribute to sustainable growth and development of Leixlip as a large growth town.

Appendix I: Scoping Submissions

Re: Leixlip Local Area Plan - SEA Scoping including Collinstown.

Dear Ms. Cooke,

Inland Fisheries Ireland is responsible for the protection, management and conservation of the inland fisheries resource. “*Fisheries*” includes all inland fisheries recreational and commercial, sea angling and mollusc fisheries stipulated under the Fisheries Acts, the physical habitat upon which the fishery relies, the facilities and access, the quantity and quality of the water and the plant and animal life on which fish depend for shelter and food and the spawning areas where in fish deposit their eggs. The protective role of IFI relates to all aspects of the aquatic environment and all factors that influence the biotic communities within waters, which in any way relate to the propagation of fish stocks.

The EU Water Framework Directive (2000/60/EC) entered into force in December 2000 requires the protection of the ecological status of river catchments – this encompasses water quality and requires the conservation of habitats for ecological communities. One of the primary objectives of the Directive is to establish a framework which prevents further deterioration and protects and enhances the status of aquatic ecosystems. Protection of aquatic ecosystems requires that river systems be protected on a catchment basis. The Local Area Plan must recognise that protection of the aquatic environment/habitat not only requires the protection of water quality but also necessitates the protection and maintenance of physical habitat and hydrological processes/regimes.

The Local Area Plan (LAP) zone under consideration is traversed by the River Ryewater in addition to smaller associated surface water channels and the Royal Canal and is bounded by the River Liffey. It is of vital importance that development in the area will not have a deleterious effect on aquatic life in these systems. The River Ryewater supports a significant population of Brown trout and provides spawning habitat for a population of Atlantic salmon. The Liffey and several of its tributaries are exceptional in the area in supporting Atlantic salmon (*Salmo salar*, listed under Annex II and V of the EU Habitats Directive) and Sea trout (*Salmo trutta*) in addition to resident Brown trout (*Salmo trutta*) populations. This highlights the sensitivity of local watercourses and the Liffey catchment in general. Only clean, uncontaminated surface waters should leave the LAP area and drain to the river network. Treated effluent from Leixlip wastewater treatment plant (WWTP) discharging to the River Liffey should comply at all times to the requirements of the Urban Wastewater Treatment Directive and Water Framework Directive. Development in the LAP must be in line with current available capacity in the relevant WWTP.

In determining the likely significant effects of the LAP under SEA, regard should be had to the need for the sustainable development of the inland and marine fisheries resource (including the conservation of fish and other species of fauna and flora, aquatic habitats and the biodiversity of inland and marine water ecosystems). Consideration should be given to potential significant impacts on:

- Water quality
- Surface water hydrology
- Fish spawning and nursery areas
- Passage of migratory fish
- Areas of natural heritage importance including geological heritage sites
- Biological Diversity
- Ecosystem structure and functioning
- Sport and commercial fishing and angling
- Amenity and recreational areas

The impact of development on watercourses should be handled with the utmost sensitivity to the relevant aquatic and riparian habitats. It is essential that IFI be contacted in relation to all works that may have an impact on surface waters (as per PLANNING AND DEVELOPMENT REGULATIONS, 2001, Section 28). The disturbance of riparian habitats should be minimised. An undisturbed buffer zone between development area and river bank should be maximised (10m minimum). Riparian vegetation should be retained in as natural a state as possible at all times.

Preparation of the LAP should facilitate the utmost priority for protection and conservation of salmonid systems in the area (including the Rivers Ryewater and Liffey). IFI's policy is to maintain watercourses in their open natural state in order to prevent habitat loss, preserve and enhance biological diversity and aid in pollution detection. IFI would welcome the designation of lands adjacent to surface waters, particularly salmonid systems as areas of open preservation allowing protection / enhancement of biological diversity while providing open space and recreational amenity for river users. Natural heritage objectives should include maintenance of buffer zones of at least 10m from the water's edge along both banks of the surface waters in the LAP area. This measure should help to protect fisheries and ecological interests.

The protection of habitats outside designated areas and a council commitment to reject proposals that would interfere with natural floodplains would greatly benefit both aquatic and riparian features in Leixlip and the surrounding areas. IFI is strongly opposed to any development on floodplain lands.

The implementation of a SUDS design for surface water disposal in any areas of increased urbanisation is a positive indicator of the Council's intention for the sustainable development of the area and should, in conjunction with good management of the site, aid in flooding and pollution management. Policies and recommendations made under the Greater Dublin Strategic Drainage Study (GSDSDS) should be applied in development of a drainage strategy for the LAPs under consideration.

Commitment to these broad principles within the LAP is recommended. The principles of sustainable development as set out in the National Sustainable Development Strategy adopted by Government should form the basis for development approaches. It is essential that infrastructural development (such as local sewerage system capacity) should precede actual development at all times.

I trust you will take our observations on board when preparing the local area plan.

Regards,

Roisin O' Callaghan

Roisin O' Callaghan

Fisheries Environmental Officer

Inland Fisheries Ireland - Dublin

Iascach Intire Eireann

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Ms Veronica Cooke
Administrative Officer
Forward Planning
Kildare County Council
Aras Chill Dara
Naas
Co. Kildare

20th September 2016

Our Ref: SCP150301.3

Re: SEA Scoping Report for the Proposed Local Area Plan for Leixlip (including Collinstown)

Dear Ms Cooke,

I refer to and acknowledge your correspondence, dated 30th August, in relation to the Strategic Environmental Assessment Scoping Report for the Proposed Local Area Plan for Leixlip (including Collinstown), referred to hereafter as the Plan. A number of specific comments to be considered are provided below. In addition to the comments, please see attached an SEA Integration document which sets out the key environmental issues, as relevant and appropriate, to be taken into account in the preparation of the SEA and Plan.

Specific Comments to be considered

- *Protection of Water Quality under the Water Framework Directive*

It is noted that a number of river bodies within/adjacent to the Plan area are classified as having *Moderate* or *Poor* status under the Water Framework Directive in 2010-2012. They are also currently classified as ranging in water quality status from *Good to Poor* under the EPA water quality classification in 2013. These include the River Rye, River Rathleek, the River Liffey and the River Oranstown.

A large portion of the Plan area is classified by the Geological Survey of Ireland as being *Extremely Vulnerable*. The Plan should promote the protection of surface water, groundwater resources and their associated habitats and species in line with the recommendations of the River Basin Management Plan and associated Programme of Measures.

- *Biodiversity*

Protecting designated National and European Sites within / adjacent to the Plan area including the Liffey Valley (pNHA), Royal Canal (pNHA) and Rye Water Valley/ Carton (pNHA/SAC), should be a key consideration of the Plan.

- *Adequate and Appropriate Critical Infrastructure.*

The Plan should ensure that development within the Plan area is aligned with the ability to provide the required critical service infrastructure (drinking water, wastewater, waste etc.). We recommend that the Plan include a clear commitment to collaborate with Irish Water and other key stakeholders, in order to ensure the sustainable development of the Plan area.

- *Historic Landfill Site within the Plan area.*

The EPA's *LEMA (Licencing, Enforcement, Monitoring and Assessment)* system identifies a historic landfill site (code S22-02403) within the Plan area. The *EPA Code of Practice: Environmental Risk Assessment for Unregulated Waste Disposal Sites (April 2007)* should be taken into consideration. Any potential future proposals for re-zoning/development of these lands (or adjacent to these lands) needs to be '*most appropriate to the potential sensitivities*'. Where a landfill meet the definition of a 'closed landfill' as defined in the Waste Management (certification of historic unlicensed waste disposal and recovery activity) Regulations 2008 (S.I.



No 524 of 2000), the Plan should refer to the requirement for authorisation of the landfill by the Agency under those regulations. In addition, the *Eastern Midland Regional Waste Management Plan* should be integrated, as relevant, into the Plan.

Scoping Process Guidance

Guidance on the SEA Scoping Process, including an SEA Pack, Integration Guidance, SEA Checklist, SEA Spatial Information Sources and guidance on *Integrating Climate Change into SEA* and *Developing and Assessing Alternatives in SEA*, is available on the EPA website and should be considered in the preparation of the SEA. These resources can be consulted at the following address: <http://www.epa.ie/pubs/advice/ea/>

SEA WebGIS Search and Reporting Tool

The EPA has launched a new application for the purposes of Strategic Environmental Assessment (SEA) for public authorities. It is a GIS based web application that allows users to explore, interrogate and produce an indicative report on key aspects of the environment in specific geographic areas. These reports are indicative and will provide an overview of key aspects of the environment within a specific plan area. This may be used to inform the SEA screening and scoping stages for Plans and Programmes with particular reference in the first instance to the land use sector, though it is also applicable to other sector plans. It may be accessed via www.edenireland.ie

Environmental Authorities

Under the SEA Regulations (*S.I. No. 436 of 2004*), as amended by *S.I. No. 201 of 2011*, notice should also be given to the following:

- The Minister for the Environment, Community & Local Government
- Minister for Agriculture, Marine and Food, and the Minister for Communications Energy and Natural Resources, where it appears to the planning authority that the plan or programme, or modification of the plan or programme, might have significant effects on fisheries or the marine environment
- where it appears to the competent authority that the plan or programme, or amendment to a plan or programme, might have significant effects in relation to the architectural heritage or to nature conservation, the Minister for Arts, Heritage and Gaeltacht Affairs, and

Additional comments on the Plan may be provided upon receipt of the Draft Environmental Report and Plan and associated documents during the next statutory consultation phase of the SEA Process. Should you have any queries or require further information in relation to the above please contact the undersigned. I would be grateful if an acknowledgement of receipt of this submission could be sent electronically to the following address: sea@epa.ie.

Yours Sincerely,

David Galvin

SEA Team

SEA Section

Office of Environmental Assessment

Environmental Protection Agency

Regional Inspectorate

Inniscarra, County Cork

INTEGRATION OF ENVIRONMENTAL CONSIDERATIONS

The Environmental Protection Agency (EPA) is a statutory Environmental Authority under the SEA Regulations. Our role in SEA in relation to Land Use Plans focuses on promoting full integration of the findings of the Environmental Assessment into the Plan. It is not the function of the EPA to either approve or enforce Land Use Plans. The EPA is focusing our efforts/resources in influencing the preparation of key national and regional plans within the planning hierarchy.

In light of the above, we intend to provide a ‘self-service approach’ to responding to submissions on plans lower in the planning hierarchy through use of this template. In this respect, where specific comments are not provided on this particular Plan (and at this stage of the SEA process), we recommend that you take this guidance document into account, and also incorporate the more detailed available guidance and other available resources on our website at <http://www.epa.ie/pubs/advice/ea/>. These resources include:

- [SEA process guidance.](#)
- [Integration of environmental considerations in land use planning guidance.](#)
- [List of available environmental spatial data sets.](#)
- [SEA GIS Search and Reporting Tool for local authority plan-makers which may be useful in the preparation of the SEA and Draft Plan.](#)
- [Recent EPA SEA related guidance on Integrating Climate Change into SEA, Developing and Assessing Alternatives in SEA, Local Authority Adaptation Strategy Development Guidelines, and GIS SEA Manual.](#)

The Plan should be consistent with key relevant higher level plans / programmes in the planning hierarchy (at a regional and national level) and be set in the context of national SEA Regulations, Planning & Development Regulations and associated DECLG Guidelines including *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* (DECLG, 2004) and the *Development Plans - Guidelines for Planning Authorities* (DECLG, 2007).

Ireland’s environment is a key national strategic and valuable asset which needs to be protected and proactively managed to ensure it forms the basis of Ireland’s economic wellbeing and a healthy society. The Plan should ensure that the natural resources and environmental conditions that are fundamental to the economic and social wellbeing of future generations are protected and are not degraded or exhausted. Four key environmental challenges for Ireland have been identified in *Ireland’s Environment 2012* (EPA, 2012) which should be taken into account in the Plan. There are as follows: *Valuing and Protecting our Natural Environment, Building a Resource-Efficient Low-Carbon Economy, Implementing Environmental Legislation* and *Putting the Environment at the Centre of our decision making*,

Section II of *Ireland’s Environment 2012* describes the six key thematic areas which should be considered and assessed in the Plan. These are *Greenhouse Gases and Climate Change, Air Quality (and Transboundary Air Emissions), Water, Sustainable Resource Use, Consumption and Waste, Nature and Biodiversity* and *Land & Soil*. The Plan should consider how to address the challenges above, taking into account the thematic areas described, in order to ensure proper planning and sustainable development is promoted in the lifetime of the Plan. The EPA also has available as reference the Irelands Environment section on its website. This provides an overview of key issues in thematic areas and links to environmental indicator data.

In addition to the high level goals and challenges described above, the EPA has summarised the key environmental aspects which should be incorporated, as appropriate, in the preparation of the SEA and Draft Plan.

Summary of Latest Updates in 2016

Changes	Comments
29/10/15	Link to Air Quality in Ireland Report for 2014 (EPA, 2015)
19/02/16	Link to Urban Wastewater Treatment Report for 2014 (EPA, 2015)
11/03/16	Updated link to GIS SEA Manual now available
11/03/16	Updated Noise section
24/04/16	Updated link to Bathing Water Quality Report for 2015
19/05/16	Added link to CORINE 2012 Data in Appendix II
19/05/16	Added link to EPA/WRA Draft SEA Resource Manual in Appendix I
30/05/16	Added link to LA Adaptation Strategy Development Guidelines (EPA, 2016)
30/05/16	Added link to Catchments.ie in Appendix I

KEY SIGNIFICANT ENVIRONMENTAL ASPECTS TO CONSIDER

Water

Support the Provision of a Safe and Secure Drinking Water Supply

In considering additional zoning/development and growth of settlements within the Plan area, it is critical that development be closely linked to the ability to provide a safe and secure supply of drinking water and related critical service infrastructure. In this context, the Plan should include a commitment to collaborate with Irish Water and other relevant stakeholders, in the provision of and adequate and appropriate drinking water supply.

The EPA series of drinking water quality reports, including the *Drinking Water Report – 2014* (EPA, 2015), should be consulted in the context of ensuring the relevant recommendations are implemented in relation to improving drinking water quality. Key issues identified with particular supplies, including significant issues identified through (Irish Water) Drinking Water Safety Plans, should be highlighted for individual plans. The Plan should include, where relevant, specific objectives to support the improvement of any water supplies in the Plan area, in collaboration with Irish Water.

A Remedial Action List (RAL) of problematic drinking water supplies is released by the EPA on a quarterly basis. It is a dynamic list which records identified and reported issues. Once appropriate mitigation measures are established and implemented, supplies are removed from the RAL. The Plan should commit to supporting Irish Water, in addressing issues where water supplies servicing the Plan area are included on the RAL. Further information can be found at: <http://www.epa.ie/downloads/pubs/water/drinking/>.

Support the Provision of Adequate and Appropriate Waste Water Treatment

As referred to in the *Water Quality in Ireland 2010 – 2012* (EPA, 2015), one of the key causes of water pollution is from point sources including discharges from waste water treatment plants. The need to provide and maintain adequate and appropriate wastewater treatment infrastructure to service zoned lands and developments over the lifetime of the Plan should be included as a specific Policy/Objective in the Plan.

Where agglomerations with treatment or poorly performing (or at capacity) treatment plants within the Plan area are highlighted in the *Focus on Urban Waste Water Discharges in Ireland Report for 2014* (EPA, 2015), the Plan should include a commitment to support the provision of appropriate measures to address these issues as a priority, in collaboration with Irish Water. The Plan should also include as appropriate, measures to ensure that combined storm water overflows, sewers and trade effluent in the area covered by the Plan is also managed properly.

With regard to any proposed rural residential development which may arise, or development proposals in un-sewered rural area, or areas where connection to the public sewer is not feasible, the Plan should include a commitment to implement, as appropriate, the EPA's [Code of Practice: Wastewater Treatment and Disposal Systems Serving Single Houses \(p.e < 10\)](#), (EPA, 2009).

Water Framework Directive

Protection of Surface and Ground Water Resources

Protecting our valuable surface and ground water resources is of vital importance to protect both human health and provide for a healthy environment. In this context, the Plan should provide clear commitments to protect surface water, groundwater and coastal/estuarine resources and their associated habitats and species, including fisheries within and adjacent to the Plan area. Where specific recommendations/concerns for water bodies within the Plan area are identified in EPA water quality reports, including the *Water Quality in Ireland 2010 – 2012*' (EPA, 2015) and relevant regional water quality reports, these should also be addressed/considered at an appropriate level in the Plan.

The Plan should also ensure that any specific relevant objectives and measures for individual water bodies, within the Plan area as set out in the existing relevant Water Framework Directive River Basin Management Plan, are provided for in order to ensure water quality is protected/improved/maintained. The Plan should also consider that subsequent water management plans (including catchment management plans) may arise out of current review of the second cycle of WFD River Basin Management Planning should be integrated as appropriate upon their adoption.

[The European Union \(Water Policy\) Regulations 2014 \(S.I. No. 350 of 2014\) sets out the roles and responsibilities of the various stakeholders and the associated requirements in relation to river basin management planning and should be integrated as appropriate. These responsibilities should be reflected in the Plan and the associated environmental monitoring.](#)

Protection of Groundwater Resources

Groundwater aquifers form important sources of drinking water both locally and regionally. Much of the summer seasonal flow in many rivers is also derived from groundwater sources. To maintain high quality water resources within the Plan area, it is important that development is controlled and managed appropriately, in particular in areas of high groundwater vulnerability to avoid transmission of pollutants into important aquifers.

The Plan should include a clear Policy / Objective for the protection of groundwater resources and associated habitats and species. The Plan should also include a commitment to integrate any existing Groundwater Protection Schemes and Groundwater Source Protection Zones, as relevant and appropriate within the Plan area. The Plan should also include a commitment to comply with the [European Communities Environmental Objectives \(Groundwater\) Regulations 2010](#) (S.I. No. 9 of 2010).

Issues to consider relating to protection of groundwater include; *enforcement of planning conditions related to installation, operation and maintenance of on-site wastewater treatment / septic tank systems, connection of all remaining houses within settlement boundaries to wastewater treatment plant, the development of a wastewater leak detection programme* and the implementation and enforcement of the *European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2009* and associated *European Communities (Good Agricultural Practice For Protection Of Waters) Regulations 2010* (S.I. No 610 of 2010).

Protection and Management of Bathing Waters

The obligation to protect bathing waters within (and adjacent to) the Plan area should also be reflected in the Plan. Bathing Waters are afforded protection under Directive 2006/7/EC, known as the '*Directive on bathing water*', which is transposed into National legislation by the *Bathing Water Quality Regulations 2008 (S.I. No. 79) of 2008*. In addition, under the Water Framework Directive, recreational waters/bathing water areas are included on the Register of Protected Areas. The Plan should provide for the protection of any waters which are used for bathing within or adjacent to the Plan area.

The EPA's most recent report on bathing water quality '[The Quality of Bathing Water in Ireland – A Report for the Year 2015](#), (EPA, 2016)' sets out the status of Irish Seawater and Freshwater Bathing areas and should be integrated as appropriate. The EPA's available bathing water advice/guidance includes an online GIS resource called "[Splash](#)" which should be considered.

Water Framework Directive & Biodiversity

Any sites of significant biodiversity value within or adjacent to the Plan area listed on the Water Framework Directive Register of Protected Areas, (such as Fresh Water Pearl Mussel Catchments, designated Salmonid waters, fisheries / shellfisheries), should be protected in preparing the Plan.

Need for Conservation of Water Resources

The Plan should include an Objective/Policy promoting the need for the conservation of water resources and also the need for detection/mitigation of infrastructural leakages. It may also be useful to consider developing a Water Conservation Strategy, in association with Irish Water and adjoining local authorities, where appropriate.

Flood Prevention and Management

The Plan should fully comply with [The Planning System and Flood Risk Management - Guidelines for Planning Authorities](#) (OPW/DEHLG, 2009). These Guidelines place requirements on planning authorities to carry out strategic flood risk assessments and also to ensure that development/zoning of vulnerable land uses, in areas at significant risk of flooding (flood zones A and B) is avoided. In effect, only flood/water compatible uses should be built in flood plains. Where this is not possible, any proposal for development/zoning is required to include a '*Justification Test*' in accordance with the Guidelines. Examples of vulnerable land uses include hospitals, residential developments and essential infrastructure such as transport and utilities (electricity generating power stations, water and sewage treatment) and potential significant sources of pollution (SEVESO sites, IPPC sites).

The Plan should include a commitment to carry out strategic flood risk assessments, in line with the Flood Risk Management Guidelines, to inform the development and implementation of the County Development Plan and lower level local area plans respectively.

A specific Policy should be included to provide for/promote appropriate flood risk assessments to be undertaken, where development / zoning is being proposed in the Plan area where there is significant risk of flooding, in accordance with the Guidelines referred to above.

The Plan should also promote the development, where appropriate, of adaptation measures to account for the likely increased risk of flooding due to climate change within the Plan area, including implementation of adequate and appropriate Sustainable Urban Drainage Systems. Additionally, the Plan should provide for protection, management, and as appropriate, enhancement of existing wetland habitats where flood protection/management measures are necessary.

Integrated Coastal Zone Management should also be considered as relevant and appropriate, to inform the preparation of coastal plans and programmes.

Biodiversity

Biodiversity within the Plan area may include designated and undesignated sites, habitats, species and networks of importance at an international, national, regional or local level. The protection of ecological resources is a key consideration which needs to be addressed. In this regard, the Plan should include clear Policies/Objectives to conserve and protect all designated sites within and adjacent to the Plan area (including the habitats and/or species for which they have been selected, or which they support), and should also promote the protection of undesignated sites and local biodiversity features.

The Plan should also promote the need to protect wider aspects of biodiversity including ecological corridors / linkages / green infrastructure, areas of important local biodiversity, the provision of buffer zones between developments and areas of significant biodiversity and ensuring appropriate control and management measures for invasive species.

Plans should be supported / informed by available habitat mapping (including wetland mapping) and other ecological surveys as relevant. The Plan should refer to and reflect the relevant commitments in *Ireland's National Biodiversity Plan – Actions for Biodiversity 2011-16* (DAHG, 2011). Local Heritage/Biodiversity plans should be highlighted and should promote the implementation of key actions set out in these plans. Where not established, commitments should be included to prepare these plans.

Appropriate Assessment

The Plan should promote the application of the guidance set out in the DECLG Publication '[Appropriate Assessment of Plans and Projects in Ireland- Guidance for Planning Authorities](#)' (2009; revision 2010), in relation to the requirements of Article 6 of the Habitats Directive.

The Plan should include a commitment to ensure compliance with the requirements of Article 6 of the Habitats Directive. The Plan should also be subject to Appropriate Assessment (AA). The Plan should include a clear Policy/Objective that sets out a requirement for AA Screening for new, reviewed or amended Plans and proposed projects, which may have the potential to impact on European sites. Potential for cumulative/in-combination effects associated with other relevant Plans/Programmes/Projects should also be determined.

Air, Noise And Climatic Factors

Noise

The objectives of EU and Irish noise legislation is “*to avoid, prevent or reduce harmful effects on human health and the environment as a whole*”, and this includes noise nuisance. To this effect the Plan should ensure this requirement is complied with. **The assessment and management of noise from the main infrastructural transport sources (roads, rail, and airports) are governed by the Environmental Noise Directive and associated 2006 Environmental Noise Regulations (S.I. 140 of 2006). In this context, as appropriate, the Plan should promote the implementation of Environmental Noise Directive and associated national regulations.** <http://www.environ.ie/environment/noise/si-140-2006-environmental-noise-regulations-2006>

Available Noise Action Plans should be taken into account also and reviewed as required, to reflect the Plan period and associated development proposals. Consideration should be given to any relevant noise maps, and action plans. Strategic noise maps are designed to assess noise exposure resulting from major roads, railways and airports. Noise action plans are designed to act as a means of managing environmental noise through land use planning, traffic management and control of noise sources. The third round of noise mapping is currently underway in Ireland and will be completed in 2018. <http://noise.eionet.europa.eu/help.html>.

Consideration should be given to protect, where relevant, any designated quiet areas in open country. In 2003, the EPA commissioned a [research project](#) to establish baseline data for the identification of quiet areas in rural locations. Quiet Areas are defined as “*an area in open country, substantially unaffected by anthropogenic noise.*” A range of minimum distance criteria from man-made noise sources such as urban areas, industry and major road sources were defined, and the report includes a number of key recommendations for the identification and control of Quiet Areas.

Air & Climatic Factors

The need to protect and improve, (as appropriate), air quality within the Plan area, particularly in areas zoned for increased urban and transport related development should be highlighted in the Plan.

The integration of climate change adaptation and mitigation measures should be reflected in the Plan, at the appropriate level either through relevant land use plans and/or specific sectoral plans e.g. Flood Risk Management Plans, Integrated Coastal Zone Management Plans etc. In this context, *Ireland's National Climate Strategy 2007 – 2012*, (DECLG, 2007) should be referred to. [Recently, Local Authority Adaptation Strategy Development Guidelines, \(EPA, 2016\) has been published, to support local authorities develop local climate adaptation strategies.](#)

Air quality legislation in Ireland highlights the need “to avoid, prevent or reduce harmful effects on human health and the environment as a whole”. In addition, it requires that Local Authorities where appropriate “shall promote the preservation of best ambient air quality compatible with sustainable development.”. These requirements should be incorporated by means of a specific plan objective / policy.

Recent [EPA reports on air quality](#) include the *Air Quality in Ireland 2014 Report*, (EPA, 2015) which sets out the most recent status in each of the four air quality zones in Ireland.

The EPA manages the national ambient air quality monitoring network and measures the levels of a number of atmospheric pollutants. The pollutants of most concern are those whose main source is traffic such as Particulate Matter and Nitrogen Dioxide should to be taken into account. Information in relation to these aspects is available at: <http://www.epa.ie/air/quality/monitor/#>

Waste Management

The Plan should promote the integration of land use zoning and development to existing and planned availability of waste infrastructure and capacity. The Plan should also refer to and incorporate the relevant aspects of the relevant Regional Waste Management Plan.

In addition, the Plan should promote and incorporate the relevant recommendations in the following series of EPA reports including:

- *The Nature and Extent of Unauthorised Waste Activity in Ireland (EPA, 2005)*
- *National Waste Report 2012 (EPA, 2014)*
- *National Hazardous Waste Management Plan 2014-2020 (EPA, 2015)*

Radon

Where significant concentrations of radon occur within the Plan area, these should be taken into account in the Plan or associated development control measures, as appropriate. Radon Maps are available at <http://www.epa.ie/radiation/radonmap/> which should be useful in identifying potential for significant radon accumulations within the Plan area.

Energy Conservation/Renewable Energy

In seeking to provide for and support the provision of a low carbon economy, the Plan should, where appropriate, promote the use of renewable energy sources (e.g. solar, wind, geothermal etc.) within the Plan area, at appropriate locations. The Plan should also promote the need for energy conservation measures in buildings in association with key stakeholders such as the Sustainable Energy Authority of Ireland. Relevant guidance, including their [Methodology for Local Authority Renewable Energy Strategy](#) guidance is available on the website: www.sei.ie.

The Plan should also consider the inclusion of, as appropriate, a Policy/Objective to prepare and implement an ‘Energy Conservation Strategy’ and associated awareness campaign.

Landscape

The Plan should provide for the protection of designated scenic landscapes, scenic views, scenic routes and landscape features of national, regional, county and local value. The Plan should also take into account the landscape character adjoining the Plan area. Visual linkages between established landmarks and landscape features and views should be taken into account when land is being zoned and when individual development proposals are being assessed / considered. The *National Landscape Strategy* (DECLG, 2015) should be taken into account and integrated as appropriate into the Plan.

Geology / Geomorphology

The Plan should protect any designated Geological and Geomorphological NHAs/pNHAs, which may be present/designated within or adjacent to the Plan area in consultation with the Geological Survey of Ireland.

Transportation

In seeking to support achieving a low carbon economy, it is important to consider and manage transport related emissions within the Plan area. In this regard the Plan should promote, and as appropriate provide for sustainable modes of transport. The Department of Transport, Tourism and Sport Report '*Smarter Transport – A Sustainable Transport Future*' (DTTS, 2009) should be reviewed in the context of possible initiatives which could be included as objectives within the Plan.

Promoting the development of traffic management measures to reduce the potential for traffic congestion and associated vehicular emissions should be considered. In particular, it would be useful to prepare (and review existing) Integrated Traffic Management Plans, where relevant and appropriate, for the existing urban areas and proposed new urban developments to consider and address the short, medium and long-term traffic management requirements within the Plan area.

Infrastructure Planning

Where zoning/rezoning of lands and the introduction of new development is being proposed within the Plan area, the Plan should promote the need for an integrated planning approach to service any development proposed and authorised during the lifetime of the Plan in collaboration with key stakeholders.

The Plan should, (when considering additional development proposals), support and promote the provision of adequate and appropriate critical service infrastructure, surface and storm water drainage, public transport, waste management, community services and amenities etc. on a planned and phased basis. This is in the context of taking into account and addressing existing infrastructural inadequacies to meet the expected needs of predicted increases in population associated with the Plan implementation.

The potential impact on human health, habitats and species of ecological importance, flood risk and water quality should be taken into account in considering proposed additional infrastructure or in proposed upgrading of existing infrastructure.

Environmental Impact Assessment (EIA)

The Plan should highlight that, under the EIA and Planning & Development Regulations, certain projects arising during the implementation of the Plan may require an EIA. It should be noted that projects may also require Appropriate Assessment screening, as required by Article 6 of the Habitats Directive. It should be noted that the EPA's role in relation to EIA relates only to facilities/sites which are licensable by the EPA, namely IPPC, waste water and waste sites.

APPENDIX I: Some Useful Environmental Resources

Environmental Criteria	Selected Resources
State of Environment	http://www.epa.ie/irelandsenvironment
Surface Water	http://www.wfdireland.ie/index.html http://www.epa.ie/pubs/reports/water/waterqua/ http://www.catchments.ie (launching June 2016)
Ground Water	http://j.mp/gsigroundwater http://www.epa.ie/downloads/pubs/water/ground/ http://www.epa.ie/hydronet/#Water%20Levels
Drinking Water	http://www.epa.ie/pubs/reports/water/drinking/
Waste Water	http://www.epa.ie/pubs/reports/water/wastewater/
Bathing Water	http://www.epa.ie/pubs/reports/water/bathing http://splash.epa.ie/#
Marine	http://www.marine.ie/Home/site-area/home/home
Biodiversity	http://www.npws.ie/guidance-appropriate-assessment-planning-authorities http://www.npws.ie/publications http://maps.biodiversityireland.ie/#/Home
Flood Prevention and Management	www.floodmaps.ie www.cfram.ie
Air	http://www.epa.ie/pubs/reports/air/quality/
Climate	http://www.environ.ie/en/Environment/Atmosphere/ClimateChange/ http://www.epa.ie/pubs/reports/research/climate/
Waste Management	http://www.epa.ie/pubs/reports/waste/
Radon	http://www.epa.ie/radiation/radonmap
Energy Conservation	www.sei.ie
Landscape Character Assessment	http://www.heritagecouncil.ie/
Geology / Geomorphology	http://www.gsi.ie/Mapping.htm
Transportation	https://www.nationaltransport.ie/planning-policy/ http://www.nra.ie/environment/
SEA	www.edenireland.ie (SEAGIS Reporting Tool) http://www.epa.ie/pubs/advice/ea/ http://www.epa.ie/pubs/consultation/manual/
EIA	http://www.environ.ie/en/DevelopmentHousing/PlanningDevelopment/EnvironmentalAssessment/EIASEAGuidance

Appendix II: Some Useful Planning Related Resources

Environmental Criteria	Selected Resources
Spatial Planning GIS	www.myplan.ie http://www.epa.ie/soilandbiodiversity/soils/land/corine/
DECLG Guidelines /	http://www.environ.ie/en/DevelopmentHousing/PlanningDevelopment/Planning/

Legislation	
Flood Risk	www.cfram.ie www.floodmaps.ie

**Appendix III:
Suggested High Level Plans/Programmes/Strategies (PPS) to Consider***

Environmental Criteria	Suggested High Level Plans/Programmes/Strategies (PPS)
National	<ul style="list-style-type: none"> - National Spatial Strategy (DECLG) - National Development Plan (DECLG) - Rural Development Programme (DECLG) - National CFRAMS Programme (DECLG) - National Renewable Electricity Policy Framework (in preparation DCENR) - Grid 25 Implementation Strategy (Eirgrid) - National Hazardous Waste Management Plan (EPA) - Food Harvest 2020 / FoodWise 2025 (DAFM) - National Forestry Programme / Forestry Policy Review (DAFM) - Seafood Operation Programme / Strategic Aquaculture Programme (DAFM) - Harnessing Our Ocean Wealth (DAFM) - National Broadband Plan (DCENR) - National Landscape Strategy (DECLG) - National Peatland Strategy, SAC Raised Bog Management Plan (DAHG) - National Biodiversity Plan (DAHG) - Water Services Strategic Plan (Irish Water) - Capital Investment Programme (Irish Water) - Sectoral Climate Change Adaptation Strategies and Low Carbon Roadmaps - Smarter Transport / Strategic Framework for Integrated Land Transport (DTTAS) - Offshore Renewable Energy Development Plan (DCENR) - Offshore Oil and Gas Exploration (DCENR) - State of the Environment Report 2012 (EPA)
Regional	<ul style="list-style-type: none"> - Regional Spatial and Economic Strategies - Regional Planning Guidelines - River Basin Management Plans (and Programme of Measures) - Relevant CFRAMS - Pollution Reduction Programmes for Shellfish Waters - Freshwater Pearl Mussel Sub-basin Management Plans - Forestry and Freshwater Pearl Mussel Plan (DAFM, in preparation) - Regional Waste Management Plan - National Transport Strategy for Greater Dublin Area - Wild Atlantic Way - Shannon Integrated Framework Plan (SIFP) - County Renewable Energy / Wind Energy Strategies - County Tourism Strategies

Note: *Plan-makers should consider and identify key relevant PPS in the SEA. List of Plans is indicative only and some may not always be relevant to a particular plan.



An Roinn Ealaíon, Oidhreachta,
Gnóthaí Réigiúnacha, Tuaithe agus Gaeltachta

Department of Arts, Heritage,
Regional, Rural and Gaeltacht Affairs

27 September 2016

FP2016/068

Veronica Cooke,
Forward Planning,
Kildare County Council,
Aras Chill Dara,
Naas,
Co. Kildare

Via *eReferral* or email: lapsubmissions@kildarecoco.ie

Re: **SEA scoping for Proposed Local Area Plan for Leixlip (including Collinstown).**

A Chara,

On behalf of the Department of Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, I refer to correspondence received in relation to the above.

Outlined below are heritage-related observations/recommendations of the Department under the stated heading.

Archaeology

It is recommended that the following be included as part of the Plan to further strengthen the protection of the built heritage, and to address the importance of and include protection of the underwater cultural heritage of the areas to be covered by the plan.

Ireland has a long and varied maritime history with extensive records for wrecks along its coast, rivers, lakes and offshore waters. The Underwater Archaeology Unit (UAU) is in the process of compiling an inventory of wrecks for the coastal and inland waters of Ireland, the records from which are stored in a shipwreck inventory database and housed in the UAU archive. The Wreck Database is accessible through the Archive Unit of the National Monuments Service. Over 18,000 wrecks have been recorded to date ranging from small fishing boats, dugout canoes and coastal traders to steamships and ocean going ships. Though earlier sources have been included where obtainable, the Inventory is largely based on documentary sources available from after 1700AD. As such, previously unrecorded shipwreck sites, including those dating to earlier periods, may await discovery in the River Liffey and its tributaries. Other forms of underwater archaeology may survive in the River Liffey in the form of abandoned vernacular craft, harbours, piers and jetties, waterside features, mills, fortifications, anchors, fish traps, crannogs, bridges, weirs, artefacts and the material traces of any activities in the past that involved the exploitation of riverine resources.

Many of these site types are protected and can be identified from the Record of Monuments and Places for the relevant County and in the relevant Urban Archaeology Survey. However, previously unrecorded archaeological sites other than wrecks may also lie undiscovered in the rivers and streams within the Leixlip Local Area Plan.

The 1987 and 1994 (Amendment) Acts of the National Monuments Act 1930 – 2004 specifically address the protection of underwater archaeology. All wrecks over 100 years old and archaeological objects underwater are protected under the legislation and significant wrecks less

than one hundred years old can be designated by Underwater Heritage Order on account of their historical, archaeological or artistic importance. Under the legislation diving on protected wreck sites or with the intention of searching for archaeological material underwater is subject to licensing requirements. Likewise, the use of detection devices, such as hand held metal detectors, geophysical surveying equipment, video or other camera equipment with locational devices attached, on protected sites underwater or for the purpose of prospecting for archaeology requires a specific detection device licence. Under the National Monuments Act it is obligatory to report all discoveries of archaeological objects and wrecks over 100 years old within 4 days of discovery. Dive and detection device licence application forms are available through the Department's web site (www.archaeology.ie).

Flood relief works and other development works in or adjacent to rivers have the potential to negatively impact known or potential submerged or buried archaeology and there will be a need for an appropriate level of archaeological assessment of the proposed works in these areas. Proposed developments, due to their location, size, or nature that may have implications for the archaeological heritage should be subject to archaeological assessment. Such developments include those that are located at or close to a Recorded Monument, those that are extensive in terms of area (1/2 hectare or more) or length (1 kilometer or more), those that may impact the underwater environment (riverine or lacustrine) and developments that require an Environmental Impact Statement. Archaeological heritage includes:

- National Monuments in the ownership or care of the State or Local Authority
- Archaeological and Architectural monuments/sites in the Record of Monuments and Places
- Monuments in the Register of Historic Monuments
- Zones of Archaeological Potential in Historic Towns
- Underwater Archaeological Heritage, including Historic Wrecks
- Previously unknown and unrecorded archaeological sites (including subsurface elements with no visible surface remains and potential sites underwater in rivers, lakes or the sea, that can include wharves, jetties, quays, piers, fish traps, anchorages, bridges, fording points)
- Potential sites located in the vicinity of large complexes of site or monuments
- Present or former wetlands, unenclosed land, rivers or lakes, or the inter-tidal zone.

It is recommended that the Council take cognisance of the above in relation to the proposed Local Area Plan for Leixlip.

If you require any further information or clarification on the above do not hesitate to contact this office.

You are requested to send further communications to this Department's Development Applications Unit (DAU) via **eReferral**, where used, or to manager.dau@ahg.gov.ie; if emailing is not possible, correspondence may alternatively be sent to:

The Manager, Development Applications Unit (DAU),
Department of Department of Arts, Heritage and the Gaeltacht,
Newtown Road, Wexford, Y35 AP90

Is mise, le meas



Sinéad O' Brien
Development Applications Unit
Tel: 053-9117528