

NATURA IMPACT REPORT DRAFT LEIXLIP LOCAL AREA PLAN 2017-2023

KILDARE COUNTY COUNCIL

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ABBREVIATIONS

AA	Appropriate Assessment
DAHRRGA	Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs
EPA	Environmental Protection Agency
EU	European Union
GIS	Geographic Information Systems
GSI	Geological Society of Ireland
LAP	Local Area Plan
LSEs	Likely Significant Effects
NHA	Natural Heritage Areas
NIR	Natura Impact Report
NIS	Natura Impact Statement
NPWS	National Parks and Wildlife Service
pNHA	Proposed Natural Heritage Areas
QI	Qualifying Interests
RPGs	Regional Planning Guidelines
SAC	Special Area of Conservation
SCI	Special Conservation Interests
SEA	Strategic Environmental Assessment
S.I. No.	Statutory Instrument Number
SPA	Special Protection Area
SUDS	Sustainable Urban Drainage Systems
SSCOs	Site Specific Conservation Objectives
WWTP	Waste Water Treatment Plant

1 INTRODUCTION

1.1 Legal Requirement for Habitats Directive Assessment

This Natura Impact Report (NIR) was prepared by Scott Cawley Ltd. for Kildare County Council. It provides information on and assesses the potential for the proposed Local Area Plan to impact on ecological sites of European-scale importance. This is the draft version of the NIR and is published alongside the Draft Leixlip Local Area Plan 2017-2023 and serves as a documented record of the process of the Appropriate Assessment (AA) of the Plan throughout its preparation.

The responsibility for carrying out the Assessment lies with Kildare County Council and this NIR facilitates the AA by the Council. The Council's AA decision at the Draft Plan Stage is also published alongside the Draft Leixlip Local Area Plan.

The preparation of the Draft Leixlip Local Area Plan has regard to Article 6 of the Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) (hereafter referred to as the Habitats Directive). This is transposed in Ireland by the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. 477) (hereafter referred to as the Habitats Regulations) and Part XAB of the Planning and Development (Amendment) Act 2010.

Articles 6(3) and 6(4) of the Habitats Directive set out the requirement for an assessment of proposed plans and projects likely to affect Natura 2000 sites (Annex 1.1).

Article 6(3) establishes the requirement to screen all plans and projects and to carry out a further assessment if required (Appropriate Assessment (AA)):

Article 6(3): "Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to an appropriate assessment of its implications for the site in view of the site's conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."

The subsequent paragraph allows proposed plans and projects to be approved in certain conditions.

Article 6(4): "If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of the Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species the only considerations which may be raised are those relating to human health or public safety, to the beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."

This Natura Impact Report has informed the Appropriate Assessment process for the Draft Leixlip Local Area Plan 2017-2023.

1.2 Statement of Authority

The preparation of the Natura Impact Report was carried out by Paul Scott and Caroline Kelly of Scott Cawley Ltd. The results of the AA were integrated into the Draft Leixlip Local Area Plan in Kildare County Council (KCC) via Amy Granville and Jane O'Reilly, Executive Planners (KCC), and Leah Kenny Operations Director (RPS).

Paul Scott is Director with Scott Cawley Ltd. Paul holds a first class honours degree in Environmental Biology from the University of Liverpool and a Masters in Pollution and Environmental Control at the University of Manchester. He is a Chartered Ecologist and Chartered Environmentalist and a Full Member of the CIEEM. He is an experienced environmental scientist, specialising in impact assessment and ecology. He has experience in a wide variety of environmental assessment and management projects and also has acted as a member of environmental assessment Expert Panels. Paul has prepared guidance on Strategic Environmental Assessment and Environmental Impact Assessment to UK and Irish central government and local authorities. Paul has prepared ecological guidance notes designed for planners and developers on behalf of the four Dublin local authorities. Paul has been involved in several Appropriate Assessments of complex projects and land-use plans including the Cherrywood SDZ, Ennis Local Area Plan, Meath County Development Plan, East Meath Local Area Plan and variations to the Meath, Dublin, Ennis and Kildare Development Plans. Paul developed a review package for Appropriate Assessment as part of the EPA STRIVE funded project Integrated Biodiversity Impact Assessment. He has lectured on EIA and Appropriate Assessment practice at University College Dublin, Trinity College Dublin and NUI Galway.

Caroline holds an honours degree in Environmental Biology from University College Dublin and a first class honours Masters in Ecological Assessment from University College Cork. Caroline's professional experience includes working with Wexford County Council where she was involved in a number of projects promoting environmental awareness and biodiversity, and more recently undertaking surveys and providing reports to inform both the Appropriate Assessment and Ecological Impact Assessment processes. Caroline has experience in habitat survey and assessment in a range of terrestrial, freshwater and coastal environments, surveys for protected species including bats, badger and otter as well as surveys for invasive species. Caroline has managed ecological assessments for a wide range of projects including tourism, industrial, residential and renewable energy developments.

2 ASSESSMENT METHODOLOGY

2.1 Formal Guidance

The AA process has taken account of guidance contained in the following documents:

- Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. (Department of Environment, Heritage and Local Government, 2010 revision).
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPWS 1/10 and PSSP 2/10.

- Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission Environment Directorate-General, 2001); hereafter referred to as the EC Article 6 Guidance Document. The guidance within this document provides a non-mandatory methodology for carrying out assessments required under Article 6(3) and (4) of the Habitats Directive.
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (EC Environment Directorate-General, 2000); hereafter referred to as MN2000. Note that a revised version of this Guidance is due to for publication in 2016 and will be taken into account when appropriate.
- Guidance Document on Article 6(4) of the 'Habitats Directive' 92/43/EEC. Clarification of the Concepts of Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence. Opinion of the European Commission (European Commission, January 2007).
- *Guidelines for Good Practice Appropriate Assessment of Plans Under Article 6(3) Habitats Directive* (International Workshop on Assessment of Plans under the Habitats Directive, 2011);
- Communication from the Commission on the precautionary principle. European Commission (2000).

2.2 Sources of Information Used

Information relied upon included the following information sources, which included maps, ecological and water quality data:

- Online data available on European sites as held by the National Parks and Wildlife Service (NPWS) from <u>www.npws.ie;</u>
- Information on water quality in the area available from <u>www.epa.ie;</u>
- Information on soils, geology and hydrogeology in the area available from <u>www.gsi.ie;</u>
- Information on the status of EU protected habitats and species in Ireland (National Parks and Wildlife Service, 2013a and 2013b);
- Kildare County Development Plan 2017-2023;
- Kildare County Development Plan 2017-2023- Natura Impact Report;
- Regional Planning Guidelines for the Greater Dublin Area (2010-2022);
- Regional Planning Guidelines for the Greater Dublin Area (2010-2022)- Habitats Directive Assessment;
- Retail Strategy for the Greater Dublin Area 2008-2016;
- Draft Transport Strategy for The Greater Dublin Area 2016-2035- Appropriate Assessment;
- Eastern River Basin Management Plans (2009-2015)- AA Screening Report;
- South Eastern River Basin Management Plans (2009-2015)- AA Screening Report;
- Kildare County Heritage Plan 2005-2009;
- Kildare County Biodiversity Plan 2009-2014;
- Draft Clane Local Area Plan 2017-2023- AA Screening;
- Draft Celbridge Local Area Plan 2017-2023 AA Screening;
- Sallins Local Area Plan 2016-2022- AA Screening;
- Monasterevin Local Area Plan 2015-2021- AA Screening;

- Kilcock Local Area Plan 2015-2021- AA Screening;
- Kilcullen Local Area Plan 2014-2020- AA Screening;
- Newbridge Local Area Plan 2013-2019- AA Screening;
- Maynooth Local Area Plan 2013-2019- AA Screening;
- Kildare Town Local Area Plan 2012-2018- AA Screening;
- Habitat Survey and Green Infrastructure Mapping (Kildare County Council, November 2014)

2.3 Appropriate Assessment: Purpose and Process

Kildare County Council has prepared the Draft Leixlip Local Area Plan 2017-2023. This Draft Plan sets out objectives and technical guidance which will be used to guide the development of the area.

All land use plans, such as the Draft Leixlip Local Area Plan 2017-2023 (hereafter referred to as the "Draft LAP"), must be prepared and examined to ensure that there will not be any adverse effects on sites that are designated for their special habitats and wildlife. These particular sites are regarded to be of European importance and are part of the European Commission's Natura 2000 network of sites. They are termed candidate Special Areas of Conservation (SAC) under the E.C. Habitats Directive and Special Protection Areas (SPA) under the E.C. Birds Directive. The Irish Government and local planning authorities have a legal obligation to protect these sites.

The process of assessing the Draft LAP was an iterative and step wise approach. The overall purpose of the process was to ensure that the LAP, when implemented, does not result in adverse effects on the "integrity" of the European sites within the Natura 2000 network.

The first step was to look at the overall LAP in principle and to answer the questions: is it likely that the implementation of this Plan could result in likely significant effects (LSEs) on the European sites within the Natura 2000 network? It does not matter where these sites may be – impacts can occur across administrative boundaries. This step is known as "Screening". In order to ensure that the Draft LAP complied fully with the requirements of Article 6 of the Habitats Directive and all relevant Irish transposing legislation, Scott Cawley Ltd, on behalf of Kildare County Council carried out the screening of the Draft LAP to see if it would require an AA. The outcome of this Screening Stage was that it was determined¹ that due to the types of development that could arise as a result of implementing the LAP, that significant effects could not be ruled out and that the Plan would need further assessment during its preparation. At the time of screening the Plan, the detail of the development objectives and settlement plans were not known so the screening was undertaken in a very precautionary and strategic manner. The Screening Stage resulted in the production of a Screening Determination which is published on the Kildare County Council website.

The AA process then moved to full Appropriate Assessment as required under Section 177V, Part XAB, 2000 Planning and Development Act, as amended.

The AA involved analysing the relationship between the proposed elements of the Draft LAP (as it was being prepared) and the Conservation Objectives of the European sites. Where there was the potential for an adverse impact to occur, then the assessment team recommended changes to elements of the Draft LAP to avoid or mitigate the potential

¹ Under Section 177U, Part XAB, 2000 Planning and Development Act, as amended.

impact. These recommendations were integrated into the various elements of the Draft LAP so that the implementation of the LAP would not result in any adverse effects on European sites.

In accordance with best practice a hierarchy of mitigation was followed:

- Avoidance of impacts by removing policies/objectives, removal of land-use zonings or changes to zonings;
- Caveats/changes to policies/objectives and additional mitigation added to zoning descriptions to mitigate any potential adverse effects on integrity.

Kildare County Council provided the Scott Cawley AA team with drafts during their process of preparing the Draft LAP. These drafts were reviewed and revised by the Council in an iterative process of assessment. The assessment methodology is described in more detail below. A summary of the results of this iterative review of the Draft LAP are provided in Section 3.4.

Leixlip Local Area Plan 2017-2023	Strategic Environmental Assessment							
	(SEA)and Appropriate Assessment (AA)							
	n of submissions on Draft Plan, Environmental							
Report and Natura Impact Report 10 th April 20	Report and Natura Impact Report 10 th April 2017 closing date for public submissions on Draft							
Plan								
22 nd May 2017								
Chief Executives Report on Submissions recei	ved to Draft Plan, Environmental Report and							
Natura Impact Report (for Elected Members)								
Before 3 rd July 2017								
Consideration of Chief Executive's Report by Ele	cted Members (resolve to alter or make, amend							
or revoke Draft Plan, Environmental Report and	Natura Impact Report) 31st July 2017							
	Determination of Requirement for SEA/AA in							
	accordance with S.12 of the Planning &							
	Development Act							
	(within 2 weeks of resolution) ¹							
Public Display of Amendments to Draft Plan	Public Display of Amendments to							
and consultation period	Environmental Reports and consultation							
	period							
August 2017 4 weeks	August 2017 4 weeks							
Submission of Chief Executive's Report to Mem	bers on submissions on the proposed material							
alterations to the Draft Plan, Environmental	Report Addendum and Natura Impact Report							
October 2017								
Consideration of Chief Executives Report by E	Elected Members (resolve to make, amend or							
revoke Draft Plan, Environmental Report and Na	tura Impact Report)							
November 2017								
Note ¹ – The Planning & Development Act 201	0 allows for the Chief Executive to allocate an							
additional discretionary time period to allow for the carrying out of SEA/AA in respect of any								

The Draft Plan is published for a period of public consultation as outlined below:

Any submissions will be scrutinised by the AA team and the Council will be alerted as to any submissions that may have implications for European sites.

proposed material alterations to the Draft Plan.

2.4 Overlap with the Strategic Environmental Assessment of the Draft Leixlip Local Area Plan.

The Strategic Environmental Assessment (SEA) of the Draft LAP was carried out concurrently with the AA. There were several areas of overlap and in accordance with good practice in terms of the following stages:

- Sharing of baseline data gathering and sharing, data on European sites and potential sensitivities and threats.
- Settlement zoning maps were scrutinized by the AA team for potential adverse effects on integrity of the European Sites in terms of their Conservation Objectives but also any other ecological impacts outside of the European sitescale were highlighted to the SEA team for them to address in the SEA process
- SEA team was able to highlight potential interactions between other environmental issues such as water quality and infrastructure and the sensitivities of European sites to the AA team.

2.5 Consultation Strategy

Whilst consultation is not an obligatory part of the Appropriate Assessment process, it provides important information on the state of the European sites and any specific concerns that key stakeholders may have. The Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs will be given the opportunity to comment on the Draft Plan and this NIR and any submission received after the period of public display will be taken into account during the subsequent stages in the preparation of the LAP.

2.6 How the AA process is applied within the Planning Hierarchy

The AA process takes place at several stages within the land use planning hierarchy. In the case of County Kildare the Draft Leixlip LAP must take cognisance of the Regional Planning Guidelines for the Greater Dublin Area 2010-2012 and the Habitats Directive (Appropriate) Assessment². The Kildare County Development Plan 2017-2023 will provide a framework for AA of individual planning applications and objectives and policies in Local Area Plans such as this one are ultimately overruled by those in the County Development Plan.

The Appropriate Assessment requirements of Part XAB of the Planning and Development (Amendment) Act 2010 apply to all levels of the planning hierarchy. At each stage the nature of the assessment will match the level of the hierarchy. As actions pass from the County Plan-level to the local plan level and then to individual planning applications, the following aspects become expressed at a sharper and more detailed level:

- Geographic specificity (i.e. from non-specific actions in County Development Plans to actions proposed for identifiable land parcels. Note that the Settlement Plans present a detailed level of geographic specificity as shown by the zoning maps. Criteria such as size and scale, land take, distance to European sites and presence of linkages can sometimes be identified).
- Duration and timing of impacts (usually not known at the plan level).

² <u>http://emra.ie/dubh/wp-content/uploads/2015/02/Greater-Dublin-Area-Regional-Planning-Guidelines-2010-</u> 2022-Volume-I.pdf

- Raw materials required, wastes and energy generated (can be predicted in a generic sense at plan level but precise constituents and quantities usually only known at the project level).

In order to address this hierarchy of level of detail, the current AA of the Draft LAP has ensured that where the certain aspects are not predictable at the LAP level but may pose a risk to the European site when project details are known, that this is highlighted in the AA process and appropriate safeguards or capture mechanisms are proposed.

2.7 Assessment Criteria

The crux of the AA process is the assessment of a proposal against the Conservation Objectives for a European site. For many Conservation Objectives that have been given site-specificity, they are themselves broken down into a series of *attributes* and *targets* for each Qualifying interest.

To make the assessment process efficient and manageable without losing quality of analysis, the Conservation Objectives were distilled to three common themes that could then be used as assessment criteria as to assess each objective, policy and proposed settlement areas. Each of the three criteria was quite general in nature which allows an easier assessment but also resulted in a very light "trigger" for the potential for adverse effects on integrity of European Sites to be identified.

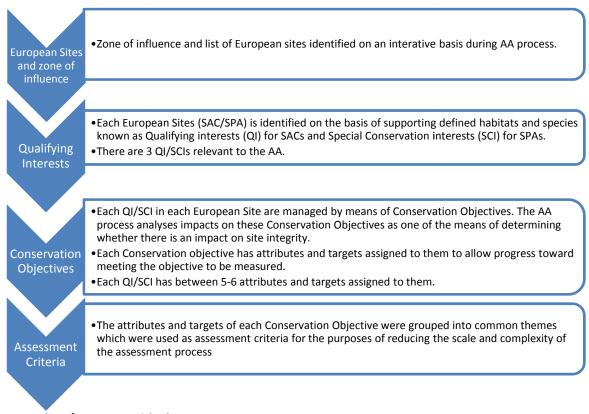


Figure 1: Preparation of Assessment Criteria

The common themes which have become the three assessment criteria for the analysis of the LAP are described below:

- 1. Are there hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality and changes in the underlying hydrological regime? The Rye Water Valley/Carton SAC is designated for the freshwater habitat "*Petrifying springs with tufa formation (Cratoneurion)*", as well as two mollusc species. This habitat type is dependent on having an available supply of freshwater. Therefore, any activities that could directly or indirectly affect water quality or supply, such as developments located adjacent to or within the SAC boundary, could potentially affect this European site. Activities that undermine this water supply could potentially have indirect adverse effects on European sites through habitat fragmentation, changes in species composition and habitat alterations.
- 2. Will there be a risk of direct habitat loss or loss of ecological networks supporting European sites? For example, roads and other new development occurring on undeveloped lands within or in close proximity to European sites.
- 3. Will there be a risk of direct or indirect disturbance to European site habitats and/or species? Even though most zoned lands are not directly within European sites they could affect it via indirect disturbance, e.g. river walkways, noise disturbance due to construction.

Table B1 in Appendix B identifies which Qualifying Interests, attributes and targets are covered by these assessment criteria.

2.8 How AA was applied to various components of the Draft Leixlip LAP.

Draft Leixlip Local Area Plan (written statement): The current Draft LAP has been analysed and this Draft NIR documents the output of the process which informs the overall AA of the LAP. Within the Draft LAP itself, there are different levels at which the AA has been applied. The overarching objectives in the main body of the Draft LAP were reviewed by the AA team and any adverse effects on integrity of European Sites were highlighted to the Plan authors. As with most strategic plans, the general nature of the strategic objectives was such that site-specific impacts could not be accurately predicted and it would depend on where and how the objective was applied. In such cases, the text was revised to reinforce the need to carry out AA at lower, site-specific levels in the planning hierarchy. The AA team had already briefed the LAP authors on the need to avoid certain objectives that could give rise to adverse effects on integrity of European Sites so in practice there were few objectives that required revision.

Draft LAP Maps: Maps were reviewed to analyse any map-based proposals that had geographic specificity that could be assessed as posing adverse effects on integrity of European Sites.

Key Development Areas (KDAs): Each of the proposed KDAs were taken in turn and analysed for their potential to result in adverse effects on European sites. This analysis focused primarily on the presence of a hydrological connection to the Rye River given the nature of the European site of concern (Rye River Valley/ Carton SAC). The EPA's Online Envision Map Viewer and NPWS Online Map Viewer were used to identify watercourses in

these areas which could potentially have hydrological connections to the Rye River. Historical studies detailing the nature of the hydrogeological context in the area were also consulted.

Each KDA was assessed to determine if it would pose an adverse effect on site integrity in terms of the site's Conservation Objectives. The three assessment criteria listed in Section 3.7 above were applied to the KDAs. The adverse effects of implementing the proposed developments on the criteria (and hence on the Conservation Objectives) was then predicted based upon the scientific information available. Impacts arising during project construction and operation stages and impacts both direct and indirect were considered at this stage.

Main Body: Draft Leixlip LAP

- 29 strategic objectives, consisting of 158 policies and 24 actions, within the Draft LAP were reviewed to determine if they could be linked to development that could have adverse effects on integrity of European Sites, most notably the Rye Water Valley/ carton SAC.
- Where likely significant effects (LSEs) were identified then the wording of the policy was revised to highlight the need to carry out assessment at the correct level of the planning hierarchy.
- No objectives or policies were removed altogether at this stage as all had been drafted in the knowlege of the types of impacts to avoid.
- In some cases, the implementation of the objective would have varying risk of LSEs occurring depending on the precise location. Therefore it would be necessary to apply AA at the Settlement -level.

Key Development Areas (KDAs)

4 Key Developmenet Areas identified in the LAP were examined and assessed for their capacity to cause adverse effects on the integrity of European sites, specifically the Rye Water Valley/ Carton SAC.

The review was guided by the three assessment criteria which took into account the Conservation objectives for the European sites considered to be within the Zone of

Figure 2: Sequence of Analyses of the Draft LAP.

3 OVERVIEW OF THE DRAFT LEIXLIP LOCAL AREA PLAN 2017-2013

3.1 Overview of Draft Leixlip LAP Structure

The previous LAP for Leixlip was adopted in January 2010. The 2010 LAP has a six year lifespan and a new LAP is now being prepared for Leixlip and its environs. This new Local Area Plan differs in that it incorporates lands at Collinstown which were not previously included within the LAP boundary. On adoption, the new LAP will govern the overall development of Leixlip and its environs, subject to objectives in the Kildare County Development Plan which will take precedence should conflict between the two occur. The proposed Draft LAP will replace and further develop an overall strategy for the proper planning and sustainable development of area.

3.2 Overview of Receiving Environment

The town of Leixlip is situated to the north-west of County Kildare, in close proximity to the border with County Dublin. The 2016 census indicated that Leixlip had a total population of 16,317 persons. In 1989, Intel constructed its largest manufacturing plant outside of the United States in Collinstown and since then Intel has invested approximately \$12.5 billion in the Leixlip site and employs more than 4,500 people at this location. In 1995 Hewlett Packard (HP) set up an inkjet printer component assembly plant to the south of Leixlip. It has invested in a number of extensions and the site is now a base for research and development, customer software support, marketing and sales and services. HP employs approximately 4,000 workers at its Irish plants in Leixlip, Co. Kildare, where the majority are based.

Leixlip has a well-developed road and rail infrastructure and a strong industrial base and is in close proximity to Dublin City as well as a number of towns such as Naas, Newbridge, Maynooth and Athy. At present the Leixlip Wastewater Treatment Plant (WWTP) is currently being upgraded to cater for the expanding population within the Lower Liffey Valley catchment and Intel. Upon completion, the WWTP will have a capacity of 150,000 P.E. However, it should be noted that Irish Water has indicated that this will provide capacity to cater for the needs of the Lower Liffey Valley catchment in the short to medium term. In the longer term, Irish Water will be looking at regional level solutions for the provision of wastewater infrastructure. The most recent available Annual Environmental report for this WWTP states that while the plant is currently operating over capacity (design capacity 80,000 P.E., current loading 83,591 P.E.) this does not have an observable impact on the water quality status of the receiving waters. However, the same assessment does identify that "priority substances" may be impacting the receiving waters even though the final effluent is compliant with emission limit values (2014). The River Liffey is the receiving water referred to and is "at risk of not achieving good status". Water quality in 2010 was given as Q3 <1km upstream of discharge point (SW001) and Q3-4 2.5km downstream of the same discharge point (Q3=POOR, Q3-4=moderate pollution status). The River Rye lies upstream of the discharge point while the European sites in Dublin Bay lie 20km downstream. It is important to note that development proposals are dependent on the upgrading of the wastewater network.

The town is located within the Liffey and Dublin Bay River catchment and holds a variety of habitats which are dependant to some degree on having an available supply of freshwater. According to the GSI's Online Map Viewer, the underlying bedrock of the town is given as *'Dinantian Upper Impure Limestone'* while some areas of exposed bedrock is present at the

surface also. The groundwater vulnerability of the area ranges from '*Moderate*' to '*Extreme*' with some '*Rock at or near the surface or Karst*' also being exposed. The groundwater body (Dublin) is expected to achieve good status under the Water Framework Directive's monitoring requirements. The aquifer in the area is described as a '*locally important aquiferbedrock which is moderately productive only in local zones*'.

An Environmental Impact Statement (EIS) for a development at the Intel site holds recent information relating to the hydrogeology of the area (AWN Consulting, 2014). According to this report the groundwater at the Intel site appears to flow in a north/north-easterly direction towards the River Rye which forms a discharge boundary to the north of the site. The deeper aquifers may be controlled by discharge to the River Liffey and the coast at Dublin Bay. An unusual feature of the groundwater regime in the wider environment is the formation of warm springs that occur in a syncline in the Lucan-Celbridge area, including the Leixlip Spa area at Louisa Bridge. A complex groundwater system is present here comprising of:

- 1. A deeper, older, warmer groundwater system which discharges to the Leixlip Spa well at Louisa Bridge. The groundwater is highly mineralized and iron rich. This system is thought to be the main source of groundwater at the well;
- 2. A more recent, shallow groundwater system that flows through conduits in the karstified limestone bedrock and discharges near the filtering pond at the Spa well. Groundwater from the shallow system discharges near rock faces and there is understood to be lateral flow towards the River Rye;
- 3. Deeper older groundwater that flows through a younger groundwater system and mixes with it.

Furthermore, karstic caves are known from along the Rye River in the townland of Blakestown to the northwest and karst has also been recorded by GSI in the townland of St. Catherine's to the southeast (AWN Consulting, 2014).

There is only one Special Areas of Conservation (SAC) which lies within the LAP boundary; the Rye Water Valley/ Carton SAC. This site extends along the River Rye, a tributary of the River Liffey and is designated due to the presence of the Annex I priority habitat Petrifying Springs [7220] as well as the Annex II mollusc species Narrow-mouthed Whorl Snail (*Vertigo angustior*) and Desmoulin's Whorl Snail (*Vertigo moulinsiana*). These mollusc species, both of which are rare in Ireland and Europe, are known to exist in marsh vegetation near Louisa Bridge. The mineral springs found on the site is a type considered to be rare in Europe and therefore is listed on Annex I of the E.U. Habitats Directive (NPWS, 2013).

The Site Synopsis for this European site (NPWS, 2013) makes note of a number of rare and threatened plant and animal species which are known to occur here. In addition, the Rye Water is also a spawning ground for Trout and Salmon and the rare White-clawed Crayfish (*Austropotamobius pallipes*) has also been recorded at Leixlip. Both Salmon and White-clawed Crayfish are listed on Annex II of the E.U. Habitats Directive. Kingfisher an Annex I species on the E.U. Birds Directive has also been seen in the environs of Leixlip town.

No Special Protection Areas (SPAs), areas designated for the conservation of a range of bird species, are located within 15km of the Leixlip LAP boundary.

Figure 3 below shows the locations of European Sites within 15km of the Draft Leixlip LAP boundary. The rationale for referring to this distance is outlined in Section 3.3.

Spatial boundary data for the European site network used was the most up-to-date available, updated and accessed in September 2016. As previously stated, the only European site deemed to be within the zone of influence of the Draft LAP is the Rye Water Valley/ Carton SAC.

In addition to examining European sites, it was deemed necessary to examine Natural Heritage Areas (NHAs) and proposed Natural Heritage Areas (pNHA). Although NHAs and pNHAs and other designated sites such as Nature Reserves, Wildfowl Sanctuaries and Ramsar sites do not form part of the European network, they often provide an important supporting role to the network, particularly when it comes to fauna species which often do not obey site boundaries. Three pNHAs are located within the zone of influence of the Draft LAP: Rye Water Valley/Carton pNHA, Royal Canal pNHA and Liffey Valley pNHA. Only the former site is pertinent to the assessment as it covers the same area as the SAC.

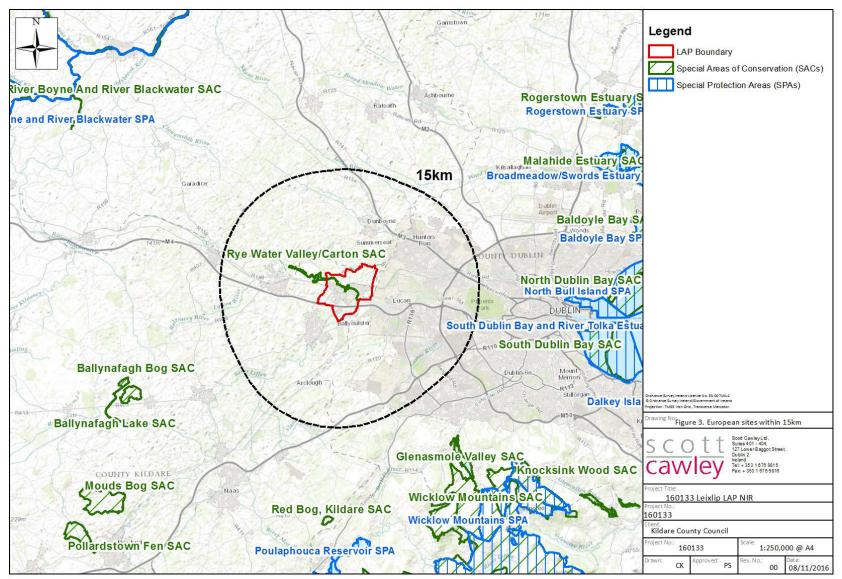


Figure 3. European sites within 15km of the Draft LAP boundary

3.3 Zone of Influence of the Plan

Current guidance on the zone of influence to be considered during the AA process states the following:

"A distance of 15km is currently recommended in the case of plans, and derives from UK guidance (Scott Wilson et al., 2006). For projects, the distance could be much less than 15km, and in some cases less than 100m, but this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects".

In practice the designation of an immoveable reference distance is not deemed to be useful as Qualifying Interests/Special Conservation Interests have different sensitivities. However, for the purpose of this specific NIR a distance of 15km was deemed to be sufficient to address all possible impacts from the Draft Leixlip LAP.

4 ASSESSMENT OF THE DRAFT LEIXLIP LOCAL AREA PLAN

4.1 Structure of Plan

The Draft LAP contains 12 chapters covering the aspects of future development in the area including:

- 1. Introduction
- 2. Leixlip in Context
- 3. Vision for Leixlip
- 4. Core Strategy
- 5. Urban Centre & Retailing
- 6. Enterprise, Economic Development & Tourism
- **7.** Housing & Community
- 8. Movement & Transport
- 9. Infrastructure & Environmental Services
- 10. Built Heritage & Archaeology
- **11.** Natural Heritage, Green Infrastructure & Strategic Open Spaces
- 12. Key Development Areas/ Masterplan Areas
- **13.** Implementation

Each chapter consists of Objectives, Policies and supporting text that adds background to the Objectives and Policies. This AA has focused on the impact of development assuming that they have complied with the objectives.

If correctly prepared at the early stages of plan-preparation, the objectives should not only avoid posing any adverse effects on integrity of European Sites but should also provide protective objectives that express intentions to protect European sites from adverse effects. Therefore, some of the Objectives may contain caveats or conditions that must be met to demonstrate compliance whilst others will be purely focused at protection of European sites.

4.2 Assessment Results

Table C1 in Appendix C lists all the Objectives and summarises the potential adverse effects on integrity of 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. In some cases, the implementation of the objective is open to interpretation at the project-level and the nature of the adverse effect arising is dependent on the location of the proposal. Therefore, 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 such cases it was assumed with a high level of confidence that mitigation measures could be applied when carrying out a project-level AA to address the adverse effects on integrity of European Sites.

The result of the revisions made to the LAP after the iterative assessment was that all of the elements in the Draft Leixlip Local Area Plan are not regarded to give rise to adverse effects on the integrity of European Sites.

4.3 How the Mitigation Measures ensure the removal of risks of adverse effects on the integrity of European Sites.

This section discusses how the Draft LAP Objectives have addressed the potential for adverse effects on European sites. It selects examples from Table C1 to demonstrate the approach that has been taken for certain impact types:

- 1. Draft LAP Objectives that reinforce statutory requirements e.g. EDTO1.3, MTO1.4, MTO3.3, NHO1.2, GIO1.5. While it is generally accepted that screening for AA is required at plan or project level, this requirement has been stated in some cases to reinforce its application at this level. Development applications that do not follow statutory requirements will not be permitted.
- 2. Draft LAP Objectives that place conditions and caveats e.g. EDTO1.3, MTO1.4, MTO3.3, NHO1.4 GIO1.5. This type of mitigation measure will only allow specific development to be considered if it can be shown to have considered specific aspects in the application documentation usually in the provision of information to the local Authority to allow them to carry out AA Screening.
- 3. **Draft LAP Objectives that lack geographic specificity**. In several cases the objective may not be expressed with reference to defined locations to permit a "complete" assessment in so far as site-specific impacts could be described. In such cases it was determined, given the nature of the Objective, as to whether impacts could be better avoided and proposals assessed at the project stage when project details are known.

5 INTERACTION WITH OTHER PLANS

The E.C. Habitats Directive and the Irish Birds and Habitats Regulations 2011 require that the impacts on European sites be assessed from the plan or project in question and also in the presence of other plans and projects that could affect the same European sites.

The analyses carried out during the preparation of this NIR has identified the plans that could act in combination with the Draft Leixlip LAP to pose adverse effects on integrity of European Sites. This section identifies if these Plans have undergone an appropriate assessment themselves as it is assumed that if a Plan has been adopted following an AA then it should not be capable of posing adverse effects on integrity of European Sites.

The cumulative/in-combination impact assessment focused on the other Development Plans that had the highest potential to affect the same European sites that could be affected by the Draft Leixlip LAP. Other higher-level plans that could promote infrastructure are integrated within the LAP itself and have been assessed as such.

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

The RPGs have undergone an AA and it recommended specific conditions to protect European sites (Section 4.6 of HDA). These were incorporated into the RPGs where appropriate. No in-combination impacts with the Draft Leixlip LAP are predicted as a result of implementation.

• Retail Strategy for the Greater Dublin Area 2008-2016

This Strategy does not seem to have undergone Appropriate Assessment. The Strategy sits under the Regional Planning guidelines for the Greater Dublin Area which was subject to AA, which placed emphasis on the protection of European sites. No incombination impacts with the Draft Leixlip LAP are predicted as a result of implementation.

• Transport Strategy for The Greater Dublin Area 2016-2035

This Strategy has undergone an AA and mitigatory measures have been recommended and incorporated into the text. Mitigation measures include those specifically to protect biodiversity including European sites, protection of riparian zone and waterbodies and watercourses and soil protection and contamination. No in-combination impacts with the Draft Leixlip LAP are predicted as a result of implementation.

• Eastern and South Eastern River Basin Management Plans (2009-2015)

Both Plans underwent an AA. Safeguards (described as 'mitigation measures' in Appendix I of the AA Screening) are in place for each qualifying interest of the European sites. An example of a common safeguard is the creation of buffer strips around water bodies to prevent pollutant loss. No in-combination impacts with the Draft Leixlip LAP are predicted as a result of implementation.

• Kildare County Development Plan 2017-2023

The Plan has undergone an AA. It found that any provisions in the Plan which may have potentially led to adverse impacts on European site have been mitigated for by the inclusion of a number of policies and objectives which specifically address the protection of European sites and reinforce statutory requirements to consider these in future plans and projects. Table A1 in Appendix A details these protective policies and objectives. No in-combination impacts with the Draft Leixlip LAP are predicted as a result of implementation.

• Kildare County Heritage Plan 2005-2009

This Plan does not seem to have undergone an AA. However, the aim of the County Kildare Heritage Plan is "to identify, preserve and conserve the built, natural and cultural heritage of the county". A number of actions within the Heritage Plan aim to raise public awareness, understanding and appreciation of the County's Heritage and promote best practice e.g. Action 2.12 "Inform general public, particularly estate agents, auctioneers, farmers and public bodies of protected sites (NHA, SAC, SPA), Protected Structures (RPS) and monuments and archaeological sites (record of Monuments and Places) and make them aware of the level of protection these sites and structures have under national and international legislation". No in-combination impacts with the Draft Leixlip LAP are predicted as a result of implementation.

• Kildare County Biodiversity Plan 2009-2014

While this Plan does not seem to have undergone an AA it should be noted that it sits under the Kildare County Development Plan which has undergone AA and has placed emphasis on the protection of European sites. Also the nature of the Biodiversity Plan is to conserve biodiversity including European sites that make up the NATURA 2000 network. No in-combination impacts with the Draft Leixlip LAP are predicted as a result of implementation.

• Draft Celbridge Local Area Plan 2017-2023

This Plan was subject to an AA Screening, which concluded that it will not have a significant effect on European sites.

• Draft Clane Local Area Plan 2017-2023

This Plan was subject to an AA Screening which concluded that it will not have a significant effect on European sites.

• Sallins Local Area Plan 2016-2022

This Plan was subject to an AA Screening which concluded that it will not have a significant effect on European sites.

• Monasterevin Local Area Plan 2015-2021

This Plan was subject to an AA Screening which concluded that it will not have a significant effect on European sites.

• Kilcock Local Area Plan 2015-2021

This Plan was subject to an AA Screening which concluded that it will not have a significant effect on European sites.

• Kilcullen Local Area Plan 2014-2020

This Plan was subject to an AA Screening which concluded that it will not have a significant effect on European sites.

• Newbridge Local Area Plan 2013-2019

This Plan was subject to an AA Screening which concluded that it will not have a significant effect on European sites.

• Maynooth Local Area Plan 2013-2019

This Plan was subject to an AA Screening which concluded that it will not have a significant effect on European sites.

• Kildare Town Local Area Plan 2012-2018

This Plan does not appear to have been subject to an AA Screening. However, is should be noted that this LAP sits under the County Development Plan which includes many policies and objectives to protect European sites.

6 **RESPONSIBILITIES FOR IMPLEMENTING MITIGATION POLICIES**

The responsibility for implementing the Leixlip LAP lies solely with the Planning Authority through the planning consent process. Applicants who intend to develop within the Leixlip LAP area are obliged to ensure that their application is consistent with the objectives and requirements within the Plan. The statutory requirement for the Planning Authority to carry out AA Screening for all planning applications is not affected by any of the statements in this NIR. All applications must be tested for the potential for likely significant effects. However, such effects are not likely to occur if the objectives in the Leixlip LAP and the requirements are adhered to as outlined, where appropriate.

Applicants must provide information to allow the Planning Authority to screen the application and decide if full AA is required.

7 MONITORING THE IMPLEMENTATION OF POLICIES

Whilst there is no legal requirement to monitor the outputs of the AA process, there is an obligation to monitor the implementation of the LAP through the E.C. SEA Directive as implemented in Ireland. Contingency measures may have to be applied if there is evidence that Objectives cannot be implemented successfully. The *European Communities (Environmental Liability) Regulations 2008* will also apply in the event of any environmental damage to habitats and species both within and outside of the European sites.

8 HOW THE AA PROCESS IN SHAPING THE LEIXLIP DRAFT LAP WILL PROTECT THE EUROPEAN SITES

This Natura Impact Report recorded the decisions that were taken during the preparation of the Draft Leixlip LAP. It determined that, assuming the successful implementation of the objectives and policies contained within the Plan itself there will be no adverse effects on integrity of European Sites in isolation or in combination with other Plans and Projects acting in the same area.

This NIR, along with any other relevant information will be use to inform the AA carried out by Kildare County Council. The Council will issue an AA Determination which is the record of their decision and how it was informed by this NIR, which will be published alongside the Draft LAP.

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APPENDICES

Appendix A

Table A1 Protective Policies and Objectives contained within the Kildare County Development Plan2017-2023

Appendix B

 Table B1 Site Specific Conservation Objectives for Qualifying Interests/Special Conservation

 Interests and how they are represented by the Assessment Criteria.

Appendix C

Table C1 Likely significant effects of Policies and Objectives contained within the Draft Leixlip LAP

Kildare County Development Plan 2017-2023- Measures to Protect sites of European and National Importance				
Location (Chapte	er)	Ref	Nature	Aim/ Policy/ Objective Text
Chapter 13: Heritage and Infrastructure	Natural Green		Aim	To contribute towards the protection of, conserve and manage natural heritage including sites designated at national and EU level and protected species and habitats outside of designated sites and to develop a Green Infrastructure network in the interests of the proper planning and sustainable development of the county.
Chapter 13: Heritage and Infrastructure	Natural Green	NH3	Policy	To require compliance with Article 10 of the Habitats Directive with regard to encouraging the management of features in 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
Chapter 13: Heritage and Infrastructure	Natural Green	NH 4	Policy	To support the conservation and enhancement of Natura 2000 Sites including any additional sites that may be proposed for designation during the period of this Plan and to protect the Natura 2000 network from any plans and projects that are likely to have a significant effect on the coherence or integrity of a Natura 2000 Site.
Chapter 13: Heritage and Infrastructure	Natural Green	NH 5	Policy	To prevent development that would adversely affect the integrity of any Natura 2000 site located within and immediately adjacent to the County and promote favourable conservation status of habitats and protected species including those listed under the Birds Directive, the Wildlife Acts and the Habitats Directive
Heritage and Infrastructure	Natural Green	NH 6	Policy	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 a Natura 2000 site to determine the likelihood of the plan or project having a significant effect on a Natura 2000 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 Natura 2000 sites will not be permitted (either individually or in combination with other plans or projects) unless for reasons of overriding public interest.
Chapter 13: Heritage and Infrastructure	Natural Green	NH 7	Policy	To contribute towards the protection of the ecological, visual, recreational, environmental and amenity value of the County's Natural Heritage Areas and associated habitats.
Chapter 13: Heritage and Infrastructure	Natural Green	NH 8	Policy	To ensure that any proposal for development within or adjacent to a Natural Heritage Area (NHA), Ramsar Sites and Nature Reserves is designed and sited to minimise its impact on the biodiversity, ecological, geological and landscape value of the site particularly plant and animal species listed under the Wildlife Acts and the Habitats

Appendix A: Table A1 Protective Policies and Objectives contained within the Kildare County Development Plan 2017-2023

			and Birds Directive including their habitats.
Chapter 13: Natural Heritage and Green Infrastructure		Policy	To ensure the impact of development within or adjacent to national designated sites Natural Heritage Areas, Ramsar Sites and Nature Reserves that is likely to result in significant adverse effects on the designated site is assessed by requiring the submission of an Ecological Impact Assessment (EIA) prepared by a suitably qualified professional which should accompany planning applications and council developments.
Chapter 13: Natural Heritage and Green Infrastructure		Policy	To restrict development within a proposed Natural Heritage Area to development that is directly related to the area's amenity potential subject to the protection and enhancement of natural heritage and visual amenities including biodiversity and landscapes
Chapter 13: Natural Heritage and Green Infrastructure		Policy	To ensure that development does not have a significant adverse impact on rare and threatened species, including those protected under the Wildlife Acts 1976 and 2012, the Birds Directive 1979 the Habitats Directive 1992 and the Flora Protection Order species.
Chapter 13: Natural Heritage and Green Infrastructure		Policy	To ensure that, where evidence of species that are protected under the Wildlife Acts 1976-2012, the Birds Directive 1979 and the Habitats Directive 1992 exists, appropriate avoidance and mitigation measures are incorporated into development proposals as part of any ecological impact assessment. In the event of a proposed development impacting on a site known to be a breeding or resting site of species listed in the Habitats Regulations or the Wildlife Acts 1976-2012 a derogation licence, issued by DAHRRGA may be required.
Chapter 13: Natural Heritage and Green Infrastructure		Policy	To encourage, pursuant to Article 10 of the Habitats Directive, the management of features of the landscape, such as traditional field boundaries, important for the ecological coherence of the Natura 2000 network and essential for the migration, dispersal and genetic exchange of wild species.
Chapter 13: Natural Heritage and Green Infrastructure		Policy	To require the submission of an Ecological Impact Assessment where deemed necessary by the planning authority (and where necessary an Appropriate Assessment in relation to Natura 2000 sites) including bat and otter surveys for developments along river, stream and canal corridors.
Chapter 13: Natural Heritage and Green Infrastructure		Policy	To strengthen ecological links between urban areas, Natura 2000 sites, proposed Natural Heritage Areas, parks and open spaces and the wider regional Green Infrastructure network.
Chapter 7: Infrastructure	WS13	Policy	To have regard to the requirements of the Habitats Directive, in all proposed projects or plans.
Chapter 13: Natural Heritage and Green Infrastructure		Objective	To request the National Parks and Wildlife Service to prioritise the preparation of Management Plans for Natura 2000 Sites which are located within the county.
Chapter 13: Natural Heritage and Green Infrastructure		Objective	To contribute towards the protection of Geological Natural Heritage Areas that become designated during the life time of the plan from inappropriate development.
Chapter 8: Energy and	WE2	Policy	To encourage the development of wind energy in suitable locations in an environmentally sustainable manner

Communications			and in accordance with Government policy and the Kildare Wind Energy Strategy.
Chapter 10: Rural Development	EI5	Policy	 To ensure that development for aggregate extraction, processing and associated concrete production does not significantly impact the following: Special Areas of Conservation (SACs). Special Protection Areas (SPAs). Natural Heritage Areas (NHAs). Other areas of importance for the conservation of flora and fauna. Zones of Archaeological Potential. The vicinity of a recorded monument. Sensitive landscape areas as identified at Chapter 14 of the Development Plan. Scenic views and prospects. Protected Structures. Established rights of way and walking routes.
Chapter 10: Rural Development	EI7	Policy	To require submission of an Appropriate Assessment under Article 6 of the Habitats Directive where any quarry / sand and gravel extraction is likely to have an impact on a Natura 2000 site (see Chapter 13).
Chapter 14: Landscape, Recreation and Amenity	WC4	Policy	To co-operate with the DHPCLG/DAHRRGA in the protection and conservation of both the Royal and Grand Canals and the River Barrow, designated as a pNHA and SAC respectively and in the sections of the River Liffey designated as a pNHA.
Chapter 14: Landscape, Recreation and Amenity	PF2	Policy	To co-operate with the DHPCLG/DAHRRGA and other statutory bodies in the protection and conservation of the Fen, a designated SAC and the immediate environs of the Fen.

Appendix B: Analysis of Likely Significant Effects on Conservation Objectives

Table B1Site specific conservation objectives of the Qualifying Interests of European Sites within the zone of Influence of the Leixlip LAP and analysis
of likely significant effects

1014 Narrow-mouthed Whorl Snail Vertigo angustior

To maintain the favourable conservation condition of Narrow-mouthed Whorl Snail, which is defined by the following list of attributes and targets (taken from Kenmare River SAC³ Conservation Objectives):

Attribute	Measure	Target	Criteria ⁴			
			1	2	3	
Distribution and occupied site	Number	No decline.		\checkmark	\checkmark	
Presence on transect	Occurrence	Adult or sub-adult snails are present in at least 3 places on the transect where optimal or sub-optimal habitat occurs.		\checkmark	\checkmark	
Abundance on Number per sample transect		At least two samples on the transect should have more than 10 <i>V. angustior</i> individuals.		\checkmark	\checkmark	
Transect habitat quality	Metres	At least 20m of habitat of the transect is classed as optimal or sub-optimal or optimal.		\checkmark	\checkmark	
Transect optimal Metres wetness		Soils, at time of sampling, are damp (optimal wetness) and covered with a layer of humid thatch for at least 20m along the transect.		\checkmark	~	
Habitat extent	Hectares	1.5ha of sub-optimal with optimal areas		\checkmark	\checkmark	
1016 Desmoulin's Snail Vertigo moulinsiana						
	To maintain the favourable conservation condition of Narrow-mouthed Whorl Snail, which is defined by the following list of attributes and targets (River Barrow and River Nore SAC Conservation Objectives):					
Attribute	Measure Target Criteria					

³ No "Site Specific Conservation Objectives" exist for the Rye Water Valley/ Carton SAC. Therefore, in accordance with the NPWS recommended approach, specific conservation objectives for the sites Qualifying Interests have been taken from a site holding that Qualifying Interest and for which "Site Specific Conservation Objectives" exist; in this case Kenmare River SAC (for Narrow-mouthed Whorl Snail) and River Barrow and River Nore SAC (for Desmoulin's Whorl Snail and Petrifying Springs with tufa formation (Cratoneurion).

⁴ The assessment criteria are as follows: 1. Hydrological linkages to European sites and potential for impacts to surface and ground water quality; 2. Direct habitat loss of European sites or loss of ecological networks supporting European sites; 3. Direct or indirect disturbance to European site habitats and/or species.

			1	2	3
Distribution: occupied sites	Number	No decline.		✓	✓
Population size: adults	Number per positive sample	At least 5 adult snails in at least 50% of samples		\checkmark	\checkmark
Population Density	Percentage positive samples	Adult snails present in at least 60% of samples per site		\checkmark	\checkmark
Area of occupancy	Hectares	Minimum of 1ha of suitable habitat per site		✓	✓
Habitat quality: vegetation	Percentage of samples with suitable vegetation	90% of samples in habitat classes I and II as defined in Moorkens & Killeen (2011)		~	×
Habitat quality: soil and moisture levels	Percentage of samples with appropriate soil moisture levels	90% of samples in moisture class 3-4 as defined in Moorkens & Killeen (2011)		~	×
7220 Petrifying sprin	ngs with tufa formatior	n (Cratoneurion)			
	vourable conservation ver Nore SAC Conservation	condition of Petrifying springs with tufa formation (<i>Cratoneurion</i> tion Objectives):) which is defined by th	e following list of attribut	es and targets (taken from
Attribute	Measure	Target	Criteria		
			1	2	3
Habitat area	Square metres	Area stable or increasing, subject to natural processes.		\checkmark	\checkmark
Habitat distribution	Occurrence	No decline.		\checkmark	\checkmark
Hydrological regime: height of water table; water flow	Metres; metres per second	Maintain appropriate hydrological regimes.	1		
Water quality	Water chemistry measures	Maintain oligotrophic and calcareous conditions.	✓		

Vegetation	Occurrence	Maintain typical species.	\checkmark	\checkmark
composition:				
typical species				

Appendix C

Table C1 Likely significant effects of Policies and Objectives contained within the Draft Leixlip LAP

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
CS1	It is the policy of the Council to support the sustainable long- term growth of	CSO1.1:Tosupportandfacilitatesustainableintensificationandconsolidation in the town centre and inestablished residential areas.CSO1.2:Tofocusnewresidential	No	No	No
	Leixlip in accordance with the Core Strategy	development into the Key Development Areas (KDAs) in tandem with community and social infrastructure.			
	of the County Development Plan 2017 – 2023.	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 a 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 integrated into the plan.	Yes, potential impacts to Rye Water Valley/ Carton SAC due to hydrological connection between the Rathleek Stream and River Rye. This connection provides potential for impacts on water quality and alterations to the underlying hydrology which supports the tuffa springs. However, it should be noted that mitigation to this effect is provided in policy NHO1.2, NHO1.4, NHO1.3 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.	No	Yes, potential impacts to Rye Water Valley/ Carton SAC through disturbance. However, it should be noted that mitigation to this effect is provided in policy NH01.2, NH01.4, NH01.3 and GI01.5. Therefore, taking these mitigating policies into account there are no adverse impacts through disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		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.	No	No	Νο
		CSO1.5: To support and facilitate development on zoned land based on the policies and objectives of the <i>Kildare Development Plan 2017 – 2023</i> and the Leixlip Local Area Plan 2017 - 2023.	No	Νο	No
UCR1	To protect the quality, visual character, cultural heritage, ambience and	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.	No	No	No
	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	 UCRO1.2: To improve the quality, ambience, vitality and vibrancy of the town centre, including: (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. 	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
	attractive environment for shopping, business, tourism, recreation and living.	UCRO1.3: 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: (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.	No	No	No
		UCRO1.4 To improve the accessibility of the town centre with particular emphasis on creating an environment that is accessible to pedestrians and cyclists.	No	No	No
		Actions • To work with relevant agencies and stakeholders to undertake a retail health check survey in the town centre and identify actions to support town centre regeneration.	No	No	No
UCR2	It is the policy of the Council to support the retail function of Leixlip through a combination of redevelopment of appropriate	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.	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
	infill and opportunity sites in the town centre, expansion opportunities at	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.	No	No	No
	neighbourhood centres and in conjunction with the development of new residential districts.	UCRO2.3 To support and facilitate appropriate levels of expansion to the established retail centres at Confey and Louisa Bridges.	Potential impacts to Rye Water Valley/ Carton SAC due to hydrological connection between the Royal Canal and the River Rye. However, it should be noted that mitigation to this effect is provided in NHO1.2. Therefore, taking this mitigating policy into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.	No. No zoned land overlaps with the SAC in this area.	Yes, potential for ex-situ disturbance to habitats and species associated with the Rye Water Valley/ Carton SAC through construction works. However, it should be noted that mitigation to this effect is provided in NHO1.2. Therefore, taking this mitigating policy into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.
		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.	No	No	No
		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).	No	Νο	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		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 design requirements for the Architectural Conservation Area (ACA).	No	No	No
		UCRO2.7 To support the development of retail-led tourism associated with the natural and built heritage assets of Leixlip.	No	No	Νο
UCR3	It is the policy of the Council to actively encourage, support and	UCRO3.1 To ensure that all new development in the town centre contributes positively to and enhances the streetscape and public realm in Leixlip.	No	Νο	Νο
	facilitate environmental and public realm improvements in Leixlip to address environmental	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.	Νο	No	No
	quality, urban design, safety, identity and	UCRO3.3 To rationalise the excessive use of line-marking and signage on Main Street.	No	No	No
	traffic impact.	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.	No	No	Νο
		UCRO3.5 To develop a central hub/node at Arthur Guinness Square and strengthen the connection between Main Street and River Liffey.	No	No	Νο

Objective	Text	Policy/Action 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.	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality The Rye River is located to the west of the River Liffey and their confluence is <100m upstream of Arthur Guinness Square. However, it should be noted that mitigation to this effect is provided in policy NHO1.4, NHO1.3 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.	Direct habitat loss or loss of ecological networks supporting European sites Whilst there may be potential impacts to River Liffey pNHA through habitat loss and disturbance, this pNHA does not directly support the SAC as it is downstream and less likely to allow the movement of QI species upstream.	Direct or indirect disturbance to European site habitats and/or species
		UCR03.7 To promote a multi-use and versatile environment for Arthur Guinness Square.UCR03.8 To encourage incidental play at suitable locations along the river walkway; opportunities may be possible	No	No Potential impacts to the Rye Water Valley/ Carton SAC through habitat loss if not correctly designed.	No Yes, potential impact to the Rye Water Valley/ Carton SAC through disturbance.
		within the riverside woodland adjacent Rye River Mall and at the riverside amenity Arthur Guinness Park.		Potential impacts to the River Liffey pNHA which acts as a support to the wider ecological network including European sites. However, it should be noted that mitigation to this effect is provided in policy NHO1.4, NHO1.3 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.	However, it should be noted that mitigation to this effect is provided in policy NHO1.4, NHO1.3 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.
		UCRO3.9 To investigate options to connect the Rye River Walkway to Main Street, including the possibility of reopening closed archways off Main	Without mitigation future proposals may pose a threat to the underlying hydrological conditions for which the tufa springs depend.	Yes, potential impacts to Rye Water Valley/ Carton SAC through habitat loss. However, it should be noted that mitigation to this effect is provided	Yes, potential impacts to Rye Water Valley/ Carton SAC through increased disturbance. However, it should be noted that mitigation to this effect is

Objective	Text	Policy/Action	Hydrological/hydrogeological	Direct habitat loss or loss of	Direct or indirect
			linkages to European sites and	ecological networks	disturbance to European
			potential for impacts arising to	supporting European sites	site habitats and/or
			and from surface and ground		species
			water quality		
		Street.	However, it should be noted that mitigation to this effect is provided in policy NHO1.4, NHO1.3 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.	in policy NHO1.4, NHO1.3 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.	provided in policy NHO1.4, NHO1.3 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.
		Actions: Prepare an Urban Design and Public Realm Study for Leixlip Town Centre, to include development of a consistent palette of hard landscape materials and street furniture in the form of a set of design guidelines for the town centre; which are both sympathetic to architectural heritage and offer visual appeal.	No	No	No
		Actions: • Improved paving, planting, lighting and street furniture in the town centre area.	No	Νο	Νο
UCR4	It is the policy of the Council to support the provision of high quality shop fronts and signage that	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 (Kildare County Council July 2013).	No	No	No
	contribute positively to and enhance the	UCRO4.2 To ensure that new signage contributes positively to and enhances the streetscape in accordance with the	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
	streetscape and to seek to control and limit	guidance set out in the Kildare County Council Policy on Signage (April 2013).			
	superfluous signage.	Actions: • To continue the Kildare County Council Shop Front / Town Centre Improvement Grant Scheme and assist, where appropriate, with the implementation of the grant scheme.	No	No	Νο
		Actions: • The Council will use, where appropriate, enforcement powers prescribed under the Planning and Development Act 2000 (as amended) to address unauthorised signage in Leixlip.	No	No	Νο
UCR5	It is the policy of the Council to apply the provisions of the Derelict Sites Act 1990 and the	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.	No	No	No
	Urban Regeneration and Housing Act 2015 in Leixlip.	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' Existing residential and 'C' New residential.	No	No	Νο
UCR6	It is the policy of the Council to	UCRO6.1 To prevent an excessive concentration of fast food outlets, take-	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
	manage the provision of undesirable uses such as fast food	aways, turf accountants, amusement arcades and off-licenses in Leixlip Town Centre. Actions:	No	No	No
	outlets, take- aways, turf accountants, amusement arcades and off- licenses, in the interest of protecting the retail function, residential amenity and public realm of Leixlip Town Centre.	 To ensure the control of noise, odour and litter and hours of operation by way of appropriate planning conditions. 			
EDT1	It is the policy of the council to support the development of Leixlip as an enterprise and employment hub for northeast Kildare.	EDTO1.1 To promote enterprise and employment development at Collinstown, focusing on the high tech, bio tech, research and development, ICT 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).	Νο	Νο	Νο
		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.	No	No	Νο

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		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.	No (Mitigation regarding protection of European sites is included in policy wording)	No	No
		 EDT01.4 To comply with the SEVESO III Directive to reduce the risk of accidents at SEVESO sites in Leixlip and the surrounding areas. EDT01.5 To have regard to the following in assessing applications for developments (including extensions) in the vicinity of the Intel SEVESO site: a) Major Accidents Directive (Seveso III– Directive(2012/18/EU) 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 	No Without mitigation future proposals may pose a threat to the underlying hydrological conditions for which the tufa springs depend. However, it should be noted that mitigation to this effect is provided in policies EDT01.3 and NH01.2. Therefore, taking these mitigating policies into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the	No No lands zoned within SAC.	No Yes, potential impacts to the Rye Water Valley/ Carton SAC through disturbance. However, it should be noted that mitigation to this effect is provided in policies EDT01.3 and NH01.2. Therefore, taking these mitigating policies into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		Authority.			this 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	 EDTO2.1 To support the continued operation and reasonable expansion of existing non-conforming uses, provided they do not: 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 	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
	zoning objective.				
EDT3	It is the policy of the Council to support and facilitate existing amenities and	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.	No	No	No
	the development of sustainable tourism infrastructure, attractions, activities and facilities in Leixlip.	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.	Unlikely to affect hydrology/hydrogeology. However, it should be noted that mitigation to this effect is provided in policy NHO1.4, NHO1.3 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.	Yes, potential impacts to Rye Water Valley/ Carton SAC and River Liffey pNHA through habitat loss. However, it should be noted that mitigation to this effect is provided in policy NHO1.4, NHO1.3 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.	Yes, potential impacts to Rye Water Valley/ Carton SAC and River Liffey pNHA through disturbance. However, it should be noted that mitigation to this effect is provided in policy NHO1.4, NHO1.3 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.
		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.	No	No	No
		EDTO3.4 To facilitate the provision of standardised signage and interpretation for tourism facilities and tourist attractions throughout the town.	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		EDTO3.5 To support the 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.	No	No	No
		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 water courses 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.	No	No	Yes, potential impacts on Rye Water Valley/ Carton SAC and River Liffey pNHA through disturbance. However, it should be noted that mitigation to this effect is provided in policy NHO1.4, NHO1.3 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.
		EDTO3.7 To support development of linkages between the historical demesne lands within and around the town to promote amenity linkage.	No	No	No
		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.	No	No	No
		EDTO3.9 To promote The Wonderful Barn as an integrated tourism and amenity destination with complementary commercial uses (see Section 9 also).	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		EDTO3.10 To support and encourage further appropriate development associated with the Arthur's Way heritage trail.	No	No	No
		EDTO3.11 To support and encourage further appropriate development of tourism and recreational facilities at Leixlip Manor Hotel and Gardens.	No	No	No
		Actions: • To liaise with relevant landowners and stakeholders to investigate the potential for an amenity walkway through Leixlip Castle.	Νο	Νο	No
		Actions: • To liaise with relevant landowners and stakeholders to investigate the potential for linkages between the historical demesnes within the LAP area and surrounding area.	No	Νο	No
		Actions: • To liaise with relevant stakeholders to advance proposals for an integrated tourism and amenity destination on the Wonderful Barn site, that accommodates a range of day and evening time uses.	No	No	No
HC1	It is the policy of the Council to ensure that sufficient land	HCO1.1 To promote and facilitate the phased development of identified Key Development Areas in accordance with the guidance set out in Chapter 12 of	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
	continues to be available at appropriate	this LAP.			
	locations to satisfy the Core Strategy growth allocation for Leixlip and that each household has access to good quality housing that is appropriate to	HCO1.2 To prepare a masterplan for a new residential and community district at Confey 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).	No	No	No
	its circumstance.	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.	No	No	No
		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.	No	No	No
		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 submitted as part of the	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		planning application, including a separate statement by the applicant on the need to reside in the area.			
		HC01.6 To ensure that, notwithstanding compliance with policy HC01.6, applicants comply with all other normal siting and design considerations.	No	No	No
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.	 HCO2.1 To require all new residential developments to meet the standards and guidance set out in: 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 (2015). The Design Manual for Urban Roads and Streets, DTTS and DECLG (2013) The policies, objectives and development management standards contained in this LAP and the Kildare County Development Plan. 	No	No	No
		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.	No	No	No
		HCO2.3 To require the submission of a Design Statement and Housing Mix Statement with applications for residential development in accordance	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		with the provisions of the County Development Plan.			
		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).	No	No	No
		Actions: • To undertake an audit of the established built up area to identify suitable opportunities for infill development.	No	No	No
НСЗ	It is the policy of the Council to facilitate and secure the	HCO3.1 To support and facilitate improvements to existing educational, childcare and healthcare facilities within the Leixlip LAP area.	No	No	No
	provision of social infrastructure to support existing and new communities	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.	No	No	No
	within the LAP area, in a manner which provides flexibility to	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.	No	No	No
	respond to varied and changing community	HCO3.4 To support and facilitate the provision of children's play facilities in Leixlip (including playgrounds and a skatepark).	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
	needs.				
HC4	It is the policy of the Council to facilitate and support a broad range of	HCO4.1 To support and facilitate the provision of multi-functional community facilities to meet the needs of the population of the Leixlip LAP area.	No	No	No
	community and recreational facilities to serve the needs of the residents of the LAP area	HCO4.2 To support and facilitate a planned extension to the existing graveyard at Confey.	Potential impacts to Rye water Valley/ Carton SAC through potential pollution/ changes to groundwater quality/ regime. However, it should be noted that mitigation to this effect is provided in policy NHO1.2. Therefore, taking this mitigating policy into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.	No	No
MT1	It is the policy of the Council to promote enhanced permeability for pedestrians and	MTO1.1 To ensure all footpaths in the town provide adequate access for the disabled and mobility impaired.	No	No	No
	cyclists within the urban environment in order to improve	MTO1.2 To support cycling as a more convenient and safe method of transport through the development of new or improved cycle facilities in Leixlip.	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
	access to the town centre, local schools, recreational facilities, shops, public transport services and other amenities, subject to local	MTO1.3 To work with the National Transport Authority 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.	Νο	Νο	No
	public consultation. This includes providing improved connectivity across the River Rye, Royal Canal and railway line, and enhances links with Maynooth and Celbridge.	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.	No	Potential impacts on Rye Water Valley/Carton SAC through habitat loss. However, it should be noted that mitigation to this effect is provided in policy NHO1.2. Therefore, taking this mitigating policy into account there are no adverse impacts through habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.	Potential impacts on Rye Water Valley/Carton SAC through increased disturbance. However, it should be noted that mitigation to this effect is provided in policy NHO1.2. Therefore, taking this mitigating policy into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.
		 MT01.5 To examine the feasibility of new pedestrian/ cycle links across the canal and railway that enhance walking and cycling options from residential areas and public spaces. MT01.6 To examine options for a new pedestrian and cycle link across the Rye River linking Confey Community College to Ryevale Lawns. 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 	No No (Mitigation relating to implementation of AA process is included in policy wording)	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		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.			
		MT01.7 To facilitate pedestrian and cycle links from Green lane to The Wonderful Barn through Easton Meadows and new residential development.	No	No	No
		MT01.8 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.	No	No	No
		MTO1.9 To ensure that the new pedestrian link between Captain's Hill and Mill Lane is carried out in accordance with the requirements of this Plan.	No	No	No
		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.	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		MTO1.11 To improve access, security and safety along the Royal Canal towpath, including: (i) Improved pedestrian access from Cope Bridge to the towpath (TBC); and (ii) Improved car-parking facilities adjacent to Royal Canal entry points at Cope Bridge and Louisa Bridge (TBC).	No	Potential for impacts on Rye Water Valley/ Carton SAC through habitat loss particularly around the Louisa Bridge area. However, it should be noted that mitigation to this effect is provided in policy NHO1.4, NHO1.3 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.	No
		Action: • Prepare a Permeability Study for Leixlip.	No	No	No
		Action: • To facilitate and support the implementation of the Royal Canal Way / North Kildare Cycleway through Leixlip (part of the Dublin - Galway Greenway Project).	No	Potential for impacts on Rye Water Valley/ Carton SAC through habitat loss and fragmentation. However, it should be noted that mitigation to this effect is provided in policy NHO1.4, NHO1.3 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.	No
MT2	It is the policy of the Council to promote the sustainable development of	MTO2.1 To secure the implementation of major public transport projects identified in the Transport Strategy for the Greater Dublin Area 2016-2035.	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
	Leixlip by supporting and guiding the relevant national agencies in delivering improvements to the public transport network and to public transport services.	 MTO2.2 To focus people intensive land uses around existing and planned public transport nodes, and improve access to services. 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. MTO2.4 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. 	No Potential impacts on the Rye Water Valley/ Carton SAC alterations to the underlying hydrology on which the tufa springs depend. However, it should be noted that mitigation to this effect is provided in policy NHO1.4, NHO1.3 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy. No	No No.	No Yes, potential for increased disturbance during construction. However, it should be noted that mitigation to this effect is provided in policy NHO1.4, NHO1.3 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy. No
		Action: • To continue to promote the provision of improved public transport services and facilities to serve the population of Leixlip through ongoing liaison with statutory agencies and public transport providers.	No	No	No

Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
It is the policy of the Council to maintain and improve and extend the local road network in	MTO3.1 To maintain and improve, as required, the local road network to ensure and high standard of road quality and safety in accordance with the requirements of this Plan and relevant legislation.	Νο	Νο	No
and around Leixlip to ensure a high standard of, connectivity,	MTO3.2 To support the implementation of the following road improvement schemes, subject to the availability of funding and	Potential impacts on the Rye Water Valley/ Carton SAC alterations to the underlying hydrology on which the tufa springs depend.	In the absence of geographic specificity, potential impacts may occur through habitat loss and fragmentation.	In the absence of geographic specificity, potential for impacts through increased disturbance during construction.
and safety for all road users.	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. (iii) The improvement of the junction of Main Street and Mill Lane.	However, it should be noted that mitigation to this effect is provided in policy NHO1.4, NHO1.3, MTO3.6 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.	However, it should be noted that mitigation to this effect is provided in policy NH01.4, NH01.3, MT03.6 and GI01.5. Therefore, taking these mitigating policies into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.	However, it should be noted that mitigation to this effect is provided in policy NHO1.4, NHO1.3, MTO3.6 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.
	 MTO3.3 To investigate the feasibility of the following road improvement schemes, to include an investigation of alternatives: (i) The realignment and improvement of the R149 (Confey Road) between the L1014 (Kellystown Lane) and the county border with Fingal. (ii) The upgrading of the L1014 (Kellystown Lane) or an alternative north-south connection west of the R149. 	No (Mitigation relating to implementation of AA process is included in policy wording)	No (Mitigation relating to implementation of AA process is included in policy wording)	No (Mitigation relating to implementation of AA process is included in policy wording)
	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, connectivity, and safety for all	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, connectivity, and safety for all road users.MTO3.1 To maintain and improve, as required, the local road network to ensure and high standard of road quality and safety in accordance with the requirements of this Plan and relevant legislation.MTO3.2 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. (iii) The improvement of the junction of Main Street and Mill Lane.MTO3.3 To investigate the feasibility of the following road improvement schemes, to include an investigation of alternatives: (i) The realignment and improvement of the R149 (Confey Road) between the L1014 (Kellystown Lane) and the county border with Fingal. (ii) The upgrading of the L1014 (Kellystown Lane) or an alternative	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, connectivity, and safety for all road users. MT03.1 To maintain and improve, as required, the local road network to ensure and high standard of road quality and safety in accordance with the requirements of this Plan and relevant legislation. No 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. (iii) The improvement of the junction of Main Street and Mill Lane. Potential impacts on the Rye Water Valley/ Carton SAC alterations to the underlying hydrology on which the tufa springs depend. MT03.3 To investigate the feasibility of Main Street and Mill Lane. MT03.3 To investigate the feasibility of alternatives: (i) The realignment and improvement of the R149 (Confey Road) between the L1014 (Kellystown Lane) and the county border with Fingal. No (Mitigation relating to implementation of AA process is included in policy wording) (ii) The upgrading of the L1014 (Kellystown Lane) or an alternative north-south connection west of the R149. No (Mitigation relating to implementation of the R149.	It is the policy of the Council to required, the local road network to minimutatin and improve, as the council to required, the local road network to ensure and high standard of road uality and safety in accordance with textend the local tradent setund the local tr

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		intersection between R149 (Captains Hill) and R148 (Main Street). (iv) The improvement of the intersection between R404 (Celbridge Road) and R148 (Main Street). 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.			
		MTO3.4 To secure improved access to The Wonderful Barn from the R404 (Celbridge Road) as part of any future development at this location.	No	No	No
		MTO3.5 To ensure that any significant new development takes place in proximity to public transport routes and can be adequately served by the road network.	No	No	No
		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.	No	Νο	Νο
		MTO3.7 To investigate the provision of additional on-street and off street public car parking in the town centre.	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		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).	No	No	No
		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.	No	No	No
		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 determined on a case by case basis.	No	Νο	Νο
		Action: • To support the preparation of a Strategic Land Use and Transportation Study for North East Kildare.	No	No	No
MT4	It is the policy of the Council to manage the provision of	MTO4.1 To apply the parking standards in the County Development Plan to all applications for planning permission in Leixlip LAP.	No	No	No

Objective	Textparkingtoprovideforthetheneedsofresidents,businessand	Policy/Action Action: Undertake a parking study of the Town Centre to identify suitable opportunities for on- street and off-street parking.	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality No	Direct habitat loss or loss of ecological networks supporting European sites No	Direct or indirect disturbance to European site habitats and/or species
	visitors to Leixlip Town Centre.				
11	It is the policy of the Council to work in conjunction with Irish Water to protect existing	IO1.1 To work in conjunction with Irish Water to promote the ongoing upgrade and expansion of water supply and wastewater services to meet the future needs of Leixlip.	No	No	No
	water and wastewater infrastructure in	IO1.2 To maximise the use of existing capacity in water services in the planning of new development.	No (Mitigation regarding protecting the quality of surface waters e.g. Rye River, included in policy wording)	No	No
	Leixlip, to maximise the potential of existing capacity and to facilitate	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.	No (Mitigation regarding protecting the quality of surface waters e.g. Rye River, included in policy wording)	No	No
	the timely delivery of water services infrastructure to facilitate future	IO1.4 To seek to ensure that development proposals comply with the standards and requirements of Irish Water in relation to water and wastewater infrastructure.	No	No	No
	growth.	Action: • The Council will encourage early consultation with Irish Water at pre-application stage to establish whether proposed developments may be premature pending the completion of upgrade works.	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
12	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	IO2.1 To carry out surface water infrastructure improvement works as required.	Yes, potential for impacts on water quality on Rye Water Valley/ Carton SAC and underlying hydrological conditions on which the tufa springs depend. However, it should be noted that mitigation to this effect is provided in policy NHO1.2. Therefore, taking this mitigating policy into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.	Yes, potential for impacts through habitat loss during works. However, it should be noted that mitigation to this effect is provided in policy NHO1.2. Therefore, taking this mitigating policy into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.	Yes, potential for impacts through increased disturbance during works. However, it should be noted that mitigation to this effect is provided in policy NH01.2. Therefore, taking this mitigating policy into account there are no adverse impacts through changes in hydrology, habitat loss or disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.
	the Water Framework Directive.	IO2.2 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 potential for SUDS at a local and district level to control surface water outfall and protect water quality.	No	Νο	Νο
		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.	No	No	No
		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	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		Management Plans.			
		IO2.5 To protect both ground and	No	No	No
		surface water resources and to work with Irish Water to develop and implement Water Safety Plan to protect			
		sources of public water supply and their contributing catchments.			
		Action:	No	No	No
		 To carry out a survey of surface water culverts in 			
		Leixlip to assess their current			
		state and to develop a			
		programme of improvements			
		where necessary.	No	No	No
		• To ensure that the surface			
		water drains in Leixlip are			
		regularly maintained to			
13	It is the policy of	minimise the risk of flooding. IO3.1 To manage flood risk in Leixlip in	No	No	No
15	the Council to	accordance with the requirements of			
	manage flood	The Planning System and Flood Risk			
	risk in Leixlip in	Management Guidelines for Planning			
	conjunction with	Authorities, DECLG and OPW (2009) and			
	the OPW and in	Circular PL02/2014 (August 2014).			
	accordance with	103.2 To ensure development proposals	No	No	No
	the requirements of the Planning	within the areas outlined on Flood Risk Map are the subject of Site-Specific			
	System and	Flood Risk Assessment, appropriate to			
	Flood Risk	the nature and scale of the			
	Management	development being proposed.			

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
	Guidelines for Planning Authorities (2009) and circular PL02/2014 (August 2014).	IO3.3 To support and co-operate with the OPW in delivering the Eastern CFRAM Programme applicable to Leixlip.	No	No	No
14	It is the policy of the Council to promote and facilitate the development and renewal of energy and communications	IO4.1 To support the statutory providers of national grid infrastructure by safeguarding existing infrastructure and strategic corridors from encroachment by development, that might compromise the operation, maintenance and provision of energy networks.	No	No	No
	networks in Leixlip, while protecting the amenities of the	IO4.2 To support and facilitate the provision of telecommunications infrastructure in Leixlip, subject to safety and amenity requirements.	No	No	No
	town.	IO4.3 To seek the undergrounding of all electricity, telephone and television cables in the town.	No	No	No
		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.	No	No	No
		IO4.5 To support ESB in identifying a suitable alternative site for the relocation of the existing telecommunications mast at Mill Lane.	No	No	No
		IO4.6 To promote and encourage the use of renewable energy technologies in existing and proposed building stock	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		within the LAP area.			
		Action: • To liaise with EirGrid in relation to the rationalisation of transmission infrastructure and/or underground routing of overhead powerlines in Leixlip.	No	No	No
15	It is the policy of the Council to protect environmental quality in Leixlip	IO5.1 To adequately maintain recycling facilities and to secure the provision of additional facilities, as required, including in conjunction with development.	No	No	No
	through the implementation of European, national and regional policy and legislation relating to air	IO5.2 It is the policy of Kildare County Council to avoid, prevent or reduce harmful effects on human health and the environment as a whole through promoting the preservation of best ambient air quality with sustainable development.	No	No	No
	quality, greenhouse gases, climate change, light pollution noise pollution and waste management.	Action: • To continue education and awareness programmes in local schools and to promote grant schemes and initiatives to residents' associations and other groups, in particular the Tidy Towns Committee.	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
BH1	It is the policy of the Council to preserve and enhance the buildings identified on the Record of Protected	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).	No	No	No
	Structures and to carefully consider any proposals for development that would affect the special value of such structures,	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.	No	No	No
	including its historic curtilage, both directly and indirectly.	 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: 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. b) Prohibit development that will block or interfere with a 	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		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.			
		BHO1.4 To address dereliction, vacancy and promote appropriate and sensitive reuse and rehabilitation of Protected Structures.	No	No	No
		BHO1.5 To support the actions and objectives of the Kildare County Heritage Plan.	No	No	No
		BHO1.6 To support the implementation of the conservation plan for the restoration and management of Leixlip Spa in association with key stakeholders	No	No	No
		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.	No	No	No
		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.	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		 (ii) The integration of car parking. (iii) The immediate consolidation and eventual restoration of the historic buildings. (iv) The reinstatement of the walled garden and rear courtyard; (v) The insertion of complementary commercial uses to ensure a sustainable future for the project. 			
		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.	No	Νο	Νο
		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.	Potential impacts on the Rye Water Valley/ Carton SAC and alterations to the underlying hydrology on which the tufa springs depend.	Νο	Potential impacts to Rye Water Valley/ Carton SAC through disturbance. However, it should be noted that
			However, it should be noted that mitigation to this effect is provided in policy NHO1.2, NHO1.4, NHO1.3 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through changes in hydrology, or water quality on the Rye Water Valley/Carton SAC through the implementation of this policy.		mitigation to this effect is provided in policy NHO1.2, NHO1.4, NHO1.3 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through disturbance on the Rye Water Valley/Carton SAC through the implementation of this policy.
BH2	It is the policy of the Council to preserve and	BHO2.1 To prepare a character statement appraisal and area specific policy objectives for the Leixlip ACA	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
	enhance the historic character and visual setting of the Leixlip Architectural Conservation Area and to carefully	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 and visual setting of the ACA including vistas, streetscapes, building line, fenestration patterns, architectural features.	No	No	No
	consider any proposals for development that would affect the special value of the area.	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.	No	Νο	No
		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.	No	No	Νο
		BHO2.5 To address dereliction and promote appropriate and sensitive reuse and rehabilitation of buildings, building features and sites within the ACA.	No	No	No
		BHO2.6 To reduce and prevent visual and urban clutter within the ACA including, where appropriate, traffic management structures, utility structures and all signage.	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		Actions: • The Council will work with and assist, where appropriate, owners of protected structures of particular significance within Leixlip in their maintenance and repair through advice and grant aid from relevant sources.	Νο	No	Νο
ВНЗ	It is the policy of the LAP to safeguard the archaeological heritage of the LAP area and avoid impacts on sites,	BHO3.1 To protect and preserve those items of archaeological interest as listed in Table 10.2 and shown on Built Heritage Map from inappropriate development that would adversely affect and/or detract from the interpretation and setting of these sites.	No	No	No
	monuments features or objects of significant historical or archaeological	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.	No	No	No
	interest.	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.	Νο	Νο	Νο
NH1	It is the policy of the Council to support the protection of species and habitats that are	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	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
	designated under the Wildlife Acts	pNHA.			
	Whalle 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.	 NHO1.2 To ensure screening for Appropriate Assessment, in accordance with Article 6(3) of the Habitats Directive is carried out in respect of any plan or project, including Masterplans, not directly connected with or necessary to the management of European sites, 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, including masterplans. Under Article 6(4) of the Habitats Directive for plans and projects that require Appropriate Assessment, such proposals which may give rise to significant cumulative, direct, indirect or secondary impacts on European sites will not be permitted (either individually or in combination with other plans or projects) unless it can be demonstrated that: 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. 	No (Mitigation regarding protection of European sites is included in policy wording)	No	Νο

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		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 and landscape value of the pNHA.	No	Νο	Νο
		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 (EcIA) prepared by a suitably qualified professional.	No	Νο	Νο
		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 network of habitats and corridors, which allow wildlife to exist and flourish and contribute to compliance with Article 10 of the Habitats Directive.	No	No	No
		NHO1.6 To protect and conserve the integrity of soils that support the rich biodiversity and ecological networks in Leixlip.	No	No	Νο
		Action: • To support the review and extension of the Habitat Survey Mapping for Leixlip to	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		include Collinstown and Confey areas.			
		Action: • TO survey of existing bridge structures in Leixlip to identify if any currently support bat roosts.	No	No	No
GI 1	It is the policy of the Council to protect, enhance and further develop the Green	GIO1.1 To integrate Green Infrastructure as an essential component of new developments and restrict development that would fragment the Green Infrastructure Network.	No	No	No
	Infrastructure network in Leixlip to provide a shared space for amenity, recreation and biodiversity.	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 by a case by case basis as part of the planning consent process.	No	No	No
		GIO1.3 To seek 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 and integrated into the design of new developments, where appropriate.	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		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 habitat 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.	No	No	No
		GIO1.5 To maintain a green infrastructure protection zone of not less than 15 metres 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 characteristics and sensitivities. Strategic green routes and trails will be open for consideration within the biodiversity 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 an	No	No	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		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.	No	No	No
		GIO1.7 To seek to preserve, protect and enhance trees (including woodlands) of special amenity, nature conservation or landscape value.	No	No	No
		GIO1.8 To seek to protect trees that have a particular local amenity or conservation value.	No	No	No
		GIO1.9 To promote appropriate tree planting within public open spaces along transport networks and in the public realm.	No	No	No
		Action: Review and update the Green Infrastructure Mapping for Leixlip to include lands at Collinstown and Confey. 	No	No	No
		Action: • All proposals for developments will be required to demonstrate that the existing Green Infrastructure network is protected, in so far as practicable, and that the development contributes positively to the development	Νο	No	Νο

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
		and protection of the overall green infrastructure assets of Leixlip.			
OS1	It is the policy of the Council 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,	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.	No (Mitigation included in policy wording)	No	No
		OSO1.2 To continue to facilitate and promote community-managed garden/allotments.	No	No	No
		OSO1.3 To promote and provide amenities /features such as picnic tables, playgrounds or outdoor gym equipment facilities in existing open spaces.	No	No	No
		OSO1.4 To investigate the potential to include new play facilities within open green space adjacent to the Canal Walk/Leixlip Spa.	No	Potential impacts on Rye Water Valley/ Carton SAC through habitat loss (loss of possible tufa springs whose location is not yet known).	No

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites However, it should be noted that mitigation to this effect is provided in policy NHO1.4, NHO1.3 and GIO1.5. Therefore, taking these mitigating policies into account	Direct or indirect disturbance to European site habitats and/or species
		OSO1.5 To encourage the development of amenity lands at Lough na Mona to	No	there are no adverse impacts through habitat loss on the Rye Water Valley/Carton SAC through the implementation of this policy. No	No
		cater for active recreation for residents of Leixlip. 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 Blackweston. (ii) Waterways Ireland regarding the Royal Canal	No	No	Potential impacts to Rye Water Valley/ Carton SAC through disturbance. However, it should be noted that mitigation to this effect is provided in policy NHO1.4, NHO1.3 and GIO1.5. Therefore, taking these mitigating policies into account there are no adverse impacts through disturbance on the Rye Water Valley/Carton SAC through the
		OSO1.7 To facilitate and promote the provision of a public park at The Wonderful Barn.	No	No	implementation of this policy. No
		OSO1.8 To pursue the creation of a Liffey Valley Regional Park together with Fingal and South Dublin County Councils.	No	No	No
		OSO1.9 To maintain and protect the greenbelt between Leixlip, Celbridge and Maynooth.	No	No	Νο

Objective	Text	Policy/Action	Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality	Direct habitat loss or loss of ecological networks supporting European sites	Direct or indirect disturbance to European site habitats and/or species
KEY DEVELOPMENT AREAS/ MASTERPLAN AREAS: To ensure that best practice urban design principles are applied to all new developments, based on the		KDA1: The Wonderful Barn: New Residential/ Open Space & Amenity at the wonderful Barn north of the M4.	No, according to the EPAs Online Envision Map Viewer ⁵ , one stream runs from north- west to south-east through these lands, flowing into the Backweston Reservoir to the south of the M4. This stream has no hydrological connection with the Rye River (Rye water Valley/ Carton SAC). Therefore, there is no potential for impacts to this European site.	No	No
integrated de	it well planned and evelopment enhances bility, attractiveness an area.	KDA2: Celbridge Road (West): New Residential Lands/ Open Space & Amenity between the M4 and Celbridge Road	No, according to the EPAs Online Envision Map Viewer, there are no water features on site which could prove a hydrological connection to the Rye Water Valley/ Carton SAC.	No	No
		KDA3: Easton (off Green Lane): New Residential Lands/ Open Space & Amenity	No, according to the EPAs Online Envision Map Viewer, there are no water features on site which could prove a hydrological connection to the Rye Water Valley/ Carton SAC.	No	No
		KDA4: Leixlip Gate (off Lane): New Residential Lands/ Open Space & Amenity	No, according to the EPAs Online Envision Map Viewer, there are no water features on site which could prove a hydrological connection to the Rye Water Valley/ Carton SAC.	No	No

⁵ EPA Envision Map Viewer: <u>http://gis.epa.ie/Envision</u> Accessed 03/11/2016



Leixlip Local Area Plan 2017-2023

Determination under Section 177V of the Planning and Development Act 2000 (as amended)

I refer to the Draft Leixlip Local Area Plan 2017-2023 published for the purposes of public consultation by Kildare County Council on 10th April 2017. This determination is a record of the planning authorities' decision.

The preparation of the Draft Leixlip Local Area Plan has regard to Article 6 of the Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) (hereafter referred to as the Habitats Directive). This is transposed in Ireland by the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. 477) (hereafter referred to as the Habitats Regulations) and Part XAB of the Planning and Development (Amendment) Act 2010. Articles 6(3) and 6(4) of the Habitats Directive set out the requirement for an assessment of proposed plans and projects likely to affect Natura 2000 sites (Annex 1.1). Article 6(3) establishes the requirement to screen all plans and projects and to carry out a further assessment if required (Appropriate Assessment (AA)).

Having regard to the content of the Draft Leixlip Local Area Plan 2017-2023 and consideration of the potential for significant impacts arising from its implementation which may have the potential to adversely affect any Natura 2000 site; with regard to their Qualifying Interests and Conservation Objectives, it was determined that in the absence of appropriate mitigation measures the Draft Plan had the potential to impact on the Rye Water Valley/ Carton SAC (Site Code: 001398). This decision has been informed by information and analysis prepared by Scott Cawley Ltd. Ecological Consultants on behalf of the Council, published in the form of a Natura Impact Report.

The process of assessing the LAP was an iterative and step-wise approach. The overall purpose of the process was to ensure that the Draft LAP, when implemented, does not result in adverse effects on the "integrity" of the European sites within the Natura 2000 network. The Natura Impact Report (NIR) described the nature of the Plan, the European sites within its zone of influence and the relationship between the two such that any impact pathways were identified. It also identified any potential for direct, indirect or cumulative impacts of the Plan on all relevant European sites.

To make the assessment process efficient and manageable without losing quality of analysis, the Conservation Objectives were distilled to three common themes that could then be used as assessment criteria as to assess each Objective, Policy, Action and Key Development Area. The common themes which became the three assessment criteria for the analysis of the LAP were:

1. Hydrological/hydrogeological linkages to European sites and potential for impacts arising to and from surface and ground water quality and changes in the underlying hydrological regime.

The Rye Water Valley/Carton SAC is designated for the freshwater habitat "Petrifying springs with tufa formation (Cratoneurion)", as well as two protected mollusc species. This habitat type is dependent on having an available supply of freshwater. Therefore, any activities that could directly or indirectly affect water quality or supply, such as developments located adjacent to or within the SAC boundary, could potentially affect this European site. Activities that undermine this water supply could potentially have indirect adverse effects on European sites through habitat fragmentation, changes in species composition and habitat alterations.

2. Direct habitat loss or loss of ecological networks supporting European sites.

For example, roads and other new development occurring on undeveloped lands within or in close proximity to European sites.

3. Direct or indirect disturbance to European site habitats and/or species.

Even though most zoned lands are not directly within European sites they could affect it via indirect disturbance, e.g. river walkways, noise disturbance due to construction.

To aid the assessment of potential effects on the Petrifying Springs (a Qualifying Interest of the Rye Water Valley/ Carton SAC), background information regarding the hydrogeology of the wider Leixlip area was also used in the AA process. The NIR states:

"An Environmental Impact Statement (EIS) for a development at the Intel site at Collinstown held recent information relating to the hydrogeology of the area (AWN Consulting, 2014). According to this report the groundwater at the Intel site appears to flow in a north/north-easterly direction towards the River Rye which forms a discharge boundary to the north of the site. The deeper aquifers may be controlled by discharge to the River Liffey and the coast at Dublin Bay. An unusual feature of the groundwater regime in the wider environment is the formation of warm springs that occur in a syncline in the Lucan-Celbridge area, including the Leixlip Spa area at Louisa Bridge. A complex groundwater system is present here comprising of:

- 1. A deeper, older, warmer groundwater system which discharges to the Leixlip Spa well at Louisa Bridge. The groundwater is highly mineralized and iron rich. This system is thought to be the main source of groundwater at the well;
- 2. A more recent, shallow groundwater system that flows through conduits in the karstified limestone bedrock and discharges near the filtering pond at the Spa well. Groundwater from the shallow system discharges near rock faces and there is understood to be lateral flow towards the River Rye;
- 3. Deeper older groundwater that flows through a younger groundwater system and mixes with it.

Furthermore, karstic caves are known from along the Rye River in the townland of Blakestown to the northwest and karst has also been recorded by GSI in the townland of St. Catherine's to the southeast (AWN Consulting, 2014). (Information taken from page 15 of the NIR).

Following the analysis of the Draft Plan as part of the preparation of the NIR, measures for impact reduction were incorporated through the formulation and revision of the Plan's Objectives and Policies. These mitigation measures aimed to avoid or reduce the impacts on the Qualifying Interests and Conservation Objectives of the designated Natura 2000 sites.

An assessment of all Objectives, Policies, Actions and the Key Development Areas contained within the Plan was undertaken and 'protective' Policies were identified which would mitigate for any potential impacts identified by other 'development driven' Policies.

In conclusion, in accordance with Section 177V of the Planning and Development Act 2000 (as amended), taking into account all matters relevant and subject to the full and proper implementation of the mitigation measures outlined in the NIR (including protective Policies identified within the Plan itself) it has been determined that the proposed Plan is not likely to have any adverse effects on the integrity of any European site within, or adjacent to the Plan area.

Signed Date Signatory (Approved Officer):

l len

6th April 2017 A/Director of Services, Planning Department