

Leixlip Area Plan 2017-2023

SEA Statement

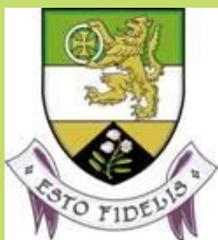
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Kildare County Council

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1 Introduction and Background

The Leixlip Local Area Plan 2017-2023 was adopted by the elected members of Kildare County Council on the 20th November 2017. This Local Area Plan (hereafter referred to as the LAP) is a land use plan and overall strategy for the development of Leixlip over the period of 2017 to 2023. The SEA for the Leixlip LAP was carried out in order to comply with the requirements of the ‘SEA Directive’ (2001/42/EC) and the provisions of the Planning and Development (Strategic Environmental Assessment) Regulations 2004 as amended by S.I. No. 201/2011 - Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011.

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

Kildare County Council has prepared the Leixlip LAP 2017-2023 to replace the 2010 Leixlip LAP. The LAP has been prepared under the provisions of the Planning and Development Act 2000 (as amended) to develop and improve in a sustainable manner the environmental, social economic and cultural assets of Leixlip.

The strategic vision is based on the role of Leixlip as defined in the settlement strategy of the Kildare County Development Plan and the aspirations of the people and stakeholders in Leixlip.

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

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

1.1 Purpose of the SEA Statement

This document is the Strategic Environmental Assessment (SEA) Statement for Leixlip Local Area Plan 2017-2023. The main purpose of the SEA Statement, as set out in Section 13(1) of S.I. No. 436/2004 - the Planning and Development (Strategic Environmental Assessment) Regulations 2004, as amended by S.I. No. 201/2011 - Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011, is to show:

- (a) How environmental considerations have been integrated into the plan,
- (b) How
 - (i) the environmental report was prepared pursuant to article 14B,
 - (ii) submissions and observations made to the planning authority in response to a notice under section 20(3) of the Act, and
 - (iii) any consultations under article 14F, have been taken into account during the making of the Plan,
- (c) The reasons for choosing the plan, as adopted, in the light of the other reasonable alternatives dealt with, and
- (d) The measures decided upon to monitor, in accordance with article 14J, the significant environmental effects of implementation of the plan.

Therefore, the purpose of the SEA Statement is to provide information on and transparency for the decision-making process; to document how the views of statutory consultees and other submissions received during the consultation phases have been taken into account in the adopted plan, as well as what arrangements are in place for monitoring.

The SEA process thereby assists in and improves the quality of the plan-making process by:

- Facilitating the identification and appraisal of alternative plan strategies;
- Raising awareness of the environmental impacts of the Plan implementation; and
- Encouraging the inclusion of measurable targets and indicators to aid monitoring

1.2 Legislative Context

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

Article 1 of the SEA Directive states:

"The objective of this directive is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with this Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment."

The SEA Directive was subsequently transposed into Irish law through:

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

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

Environmental Protection Agency

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

Department of Environment, Community and Local Government

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

Department of Environment, Heritage and Local Government

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

European Commission

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

1.3 SEA Process

In accordance with Section 14A(1) of the Planning and Development Regulations 2001, as amended, SEA must be carried out on the likely significant effects on the environment for towns with a population or target population of 5,000 or more; therefore a Strategic Environmental Assessment was a mandatory requirement for the Leixlip LAP 2017-2023. A formal SEA Scoping Report was prepared and issued to the statutory Environmental Authorities. Submissions were considered in the preparation of the Draft LAP and in the preparation of the associated SEA Environmental Report which provided an assessment of the consequences on the environment of carrying out the Draft Plan. The Draft Leixlip LAP and the SEA Environmental Report, together with a copy of the Natura Impact Report (NIR) and Strategic Flood Risk Assessment (SFRA) were placed on public display and observations and submissions were invited.

Submissions received on the Draft Leixlip LAP and the Environmental Report were reviewed and considered prior to the finalisation of the Plan. This enabled a full assessment of the effects of proposed changes and amendments on the environment. The Elected Members of Kildare County Council are obliged to take the Environmental Report into account when making the Plan, which was formally adopted on November 20th 2017.

The legislation and guidelines governing the SEA process recommend that the preparation of the Plan, SEA and Appropriate Assessment (AA) should be integrated and iterative. **Figure 1.1** (below) provides a summary of the integrated nature of the LAP preparation and SEA process.

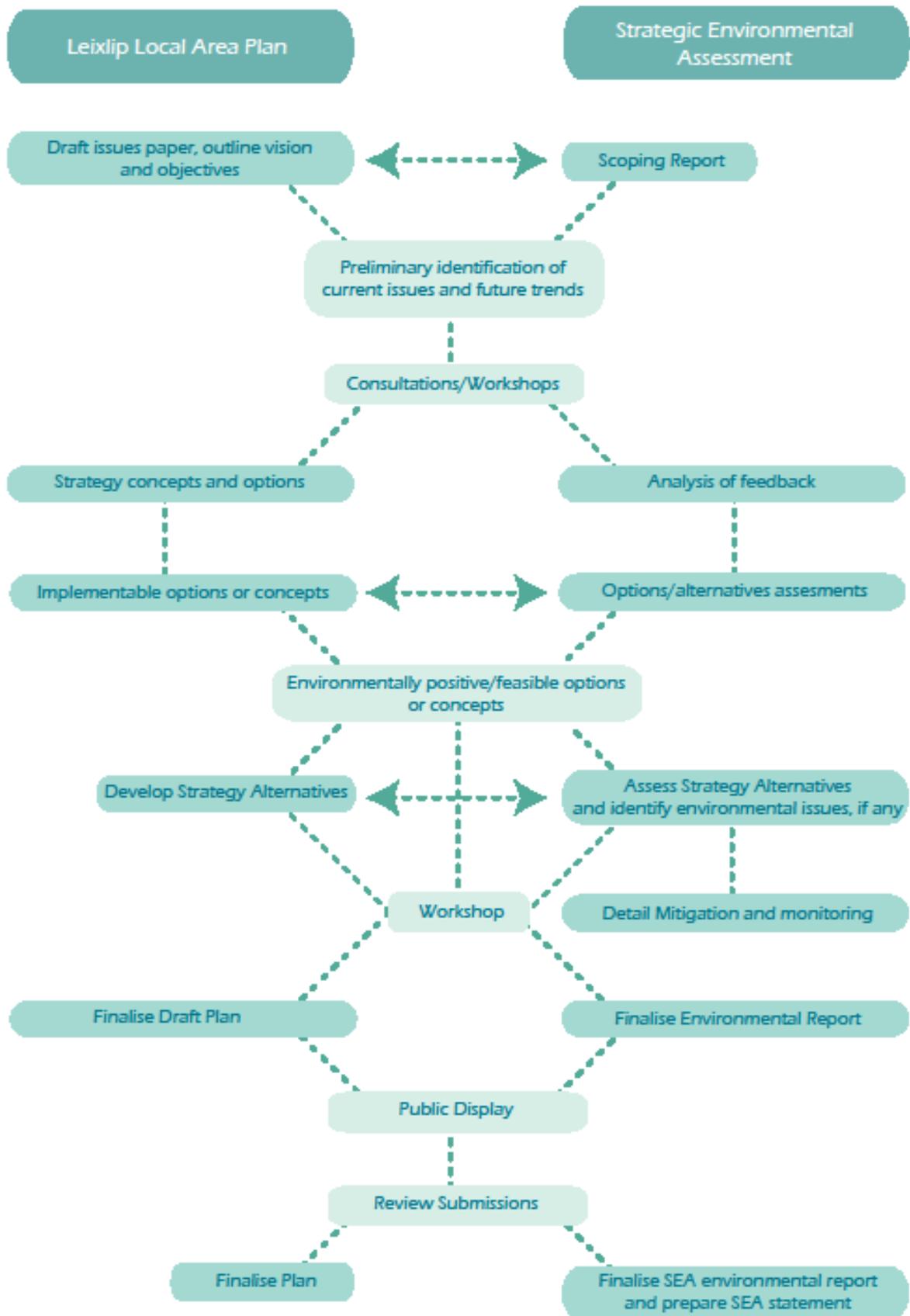


Figure 1.1 Outline of Leixlip Local Area Plan and integration with SEA Process

The Environmental Report (ER) also outlines how the SEA process was carried out in tandem with the preparation of the Leixlip LAP and its accompanying NIR. The SEA process ensured that the Plan was informed by environmental considerations from the outset. The SEA team were fully involved in the analysis of development options and were in a position to make suggestions throughout the process of the Plan preparation to ensure that environmental considerations and environmental effects were considered in the formulation of strategic goals and development objectives.

2 Integration of the Environmental Considerations into the Plan

2.1 Screening for Environmental Considerations

Screening assesses the need to undertake a Strategic Environmental Assessment. Under the Planning and Development Act 2000-2013, full Strategic Environmental Assessment is mandatory for the Leixlip Local Area Plan 2017-2023. Therefore, an initial screening was not required.

2.2 Scoping

The Scoping of the Leixlip Local Area Plan 2017-2023 was carried out in accordance with Article 5 (4) of the SEA Directive (2001/42/EC).

The principal purpose of the scoping stage is to decide upon the range of issues and level of detail to be included in the Environmental Report. An overview of the relevant environmental issues requiring further analysis are given consideration in the Environmental Report and ultimately in the LAP itself. By highlighting some of the significant issues at an early stage, it ensures that the issues are firmly to the forefront when considering each of the policies and objectives of the Plan and reduces the possibility of relevant issues not being addressed.

The scoping aspect involved consultation with the statutory consultees, providing an opportunity to comment on the highlighted issues and the proposed methodology. Under the Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011 the list of statutory consultees included:

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

In compliance with the SEA (Amendment) Regulations 2011, Kildare County Council gave notice to the aforementioned Environmental Authorities of its intention to prepare a new LAP for the area. A Scoping Report was prepared in order to facilitate consultation with statutory consultees and consultees were requested to review the content of the report and to comment on aspects they believe may require particular emphasis in the Local Area Plan and associated SEA Environmental Report and Appropriate Assessment documentation.

2.3 Statutory Consultations

Submissions were received from the following statutory consultees:

- The Environmental Protection Agency
- Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs
- Inland Fisheries Ireland

Table 2.1 below outlines the issues raised in submissions and the response and how these issues have been addressed within the preparation of the Environmental Report.

Table 2.1 – Summary of Scoping Submissions

CONSULTEE AND COMMENTS	RESPONSE
Environmental Protection Agency	
<ul style="list-style-type: none"> ▪ Acknowledged receipt of the Scoping Report for the Draft Leixlip LAP (incl. Collinstown). ▪ A number of river bodies within/adjacent to the Plan area are classified as having Moderate or Poor status under the Water Framework Directive in 2010-2012 ▪ Protecting designated National and European Sites within / adjacent to the Plan area including the Liffey Valley (pNHA), Royal Canal (pNHA) and Rye Water Valley/ Carton (pNHA/SAC), should be a key consideration of the Plan ▪ The Plan should ensure that development within the Plan area is aligned with the ability to provide the required critical service infrastructure (drinking water, wastewater, waste etc.). ▪ The EPA’s LEMA (Licencing, Enforcement, Monitoring and Assessment) system identifies a historic landfill site (code S22-02403) within the Plan area. The EPA Code of Practice: Environmental Risk Assessment for Unregulated Waste Disposal Sites (April 2007) should be taken into consideration. Any potential future proposals for re-zoning/development of these lands (or adjacent to these lands) needs to be ‘most appropriate to the potential sensitivities’. ▪ The Eastern Midland Regional Waste Management Plan should be integrated, as relevant, into the Plan. 	<p>Comments and suggestions have been considered in the preparation of the Environmental Report</p>
Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs	
<ul style="list-style-type: none"> ▪ Acknowledged receipt of the Scoping letter and made the following recommendations ▪ Proposed developments, due to their location, size, or nature that may have implications for the archaeological heritage should be subject to archaeological assessment. ▪ Such developments include those that are located at or close to a Recorded Monument, those that are extensive in terms of area (1/2 hectare or more) or length (1 kilometer or more), those that may impact the underwater environment (riverine or lacustrine) and developments that require an Environmental Impact Statement. ▪ Under the National Monuments Act it is obligatory to report all discoveries of archaeological objects and wrecks over 100 years old within 4 days of discovery. 	<p>Noted</p>
Inland Fisheries Ireland	
<ul style="list-style-type: none"> ▪ Acknowledged receipt of Scoping Report and confirmed that the proposed LAP would be brought to the attention of the Minister for Agriculture, Food and Marine. 	<p>Noted</p>

2.4 Appropriate Assessment Screening

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

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

The Stage 2 Appropriate Assessment was published in parallel with the LAP and Environmental Report.

2.5 Public Consultations and Submissions or Observations on the Draft LAP.

During the preparation of the Leixlip Local Area Plan, an opportunity was provided to members of the public and interested parties to make a written submission on the Draft Leixlip LAP and associated documents.

On the 10th April 2017, the Draft Leixlip LAP 2017-2023, the Environmental Report and the AA Screening Report were published and placed on public display until the 22nd May 2017. In total, 1,914 submissions were received during the public consultation period, eight of which were from government department and agencies. 1,021 of these submissions related to the protection of St. Catherine's Park. These were reviewed by the plan-making team and Chief Executive within Kildare County Council.

A report summarising the issues raised and the Chief Executive's recommendation was presented to the Elected Members. Each of the issues raised in the submissions were considered in the preparation of the Chief Executive's Report. The report listed the persons that made submissions or observations during the public consultation period, summarised the issues raised in the submissions or observations and responded on an issue by issue basis.

Having considered the responses and recommendations set out in the Chief Executive's Report, a range of amendments to the text of the Draft LAP were proposed. Contrary to the opinion of the Chief Executive's Report, a proposal by the Elected Members to amend the 'New Residential' land use zoning of Key Development Area 2 (Material Alteration No.1) with 'Agriculture' was also proposed. It was resolved by the Elected Members of Kildare County Council to alter the Draft Leixlip LAP and that these alterations would constitute a Material Alteration to the Draft LAP.

In accordance with Section 20 (3) (e) of the Planning and Development Act 2000 (as amended), the Proposed Material Alterations were published for public consultation on the 18th August 2017 for a period of not less than 4 weeks. A SEA Screening Report, an AA Screening Report were also placed on public display alongside the Proposed Material Alterations. Copies of the Proposed Material Alterations were sent to prescribed bodies, including government departments and other agencies, as required by the Planning and Development Act 2000 (as amended). Further SEA Screening and AA Screening determined that the Proposed Material Alterations were appropriate and acceptable in terms of SEA and AA requirements.

In total, 25 submissions were received on the Proposed Material Alterations, including eight (8) from prescribed bodies. Having reviewed the submissions arising from public consultation, a Chief Executive's Report was prepared which listed the persons that made submissions or observations, summarised the issues raised in the submissions or observations and responded to each submission. The Chief Executive's Report on submissions dated the 12th October acknowledged the submission from the Department of Housing, Planning, Community and Local Government (*DoHPCLG*) which advised that the removal of the 'New Residential' zoning from the Confey lands and lands at KDA2 materially contravenes the Core Strategy of the Kildare County Council Development Plan 2017 – 2023. The Department requested the Council to omit proposed Material Alterations No. 1 and No. 2 and stated *'where the authority does not implement the request, the Department advises that the Minister would be likely to consider the use of his powers to direct the planning authority accordingly under section 31 of the Act'*.

Having considered the submissions received from the public display of the Proposed Material Alterations and in accordance with the submission from the DoHPCLG, the Chief Executive recommended that Material Alteration No. 1 and Material Alteration No. 2 should not be adopted. Other alterations comprised minor clarifications to the text of the proposed material alterations. These proposed changes did not give rise to adverse environmental impacts.

2.6 Public Consultations and Submissions and Observations on the SEA Environmental Report and Screening of Proposed Material Alterations

Only three submissions, provided by the Environmental Protection Agency (EPA), the Dept. of Arts, Heritage, Regional, Rural and Gaeltacht Affairs and Inland Fisheries Ireland made specific reference to the SEA Environmental Report that accompanied the Draft Leixlip LAP on public display. Table 2.2 below notes the issues raised in the EPA submission and outlines how these issues would be addressed in the final Environmental Report.

Table 2.2 Review of SEA related Submissions

	Summary Of Issues Raised In EPA Submission	Response
1.	Biodiversity: SEA ER should consider describing whether invasive species are present within the Plan area	The final Environmental Report includes information on Invasive species as follows: <i>According to the National Biodiversity Data Centre, there are records of Curly leaved waterweed located within the northern section of the study area on both the Royal Canal and Rye Water. There are also records of Japanese Knotweed off Station Road in 2013. The records also include Grey Squirrel within the Study Area, near to the River Liffey and Lucan Demesne (2007). Other records of invasive species located within the Study Area are Canadian Waterweed (1989) and Jenkin's Spire Snail (2003). The nearest record of Himalayan Balsam is on the River Liffey c. 300m to the east of the Study Area. American Mink was recorded c. 650 m to the west of the Study Area, off the River Liffey in St. Catherine's Park. The invasive species Japanese Knotweed and Variegated yellow archangel were both noted along the Rye Water embankment walk between Ryevale Lawns and the river (opposite Confey Community College) during the surveys in 2014.</i>
2.	With regards water quality, we refer you to the EPA's www.catchments.ie website which provides information and maps on the water quality status under the Water Framework Directive. The SEA ER should provide additional information in relation to the pressures affecting water quality within the Plan area, and how the Plan proposes to address these.	Final ER contains additional information relating to the catchment within which Leixlip is located. Additional information relating to pressures on surface water, drainage and groundwater has been added and measures to counteract water deterioration have been identified.
3.	OPW have identified Leixlip as an AFA, where flood alleviation measures/options are proposed.	This is noted in the Flood and Flood Risk section of the ER.
4.	The reference to the EPA's Air Quality in Ireland 2011 report should be updated to	Information referencing the EPA's Air Quality in Ireland 2011 report has been updated to reflect the most recent EPA Air Quality Report for 2015 in the final

	reflect the most recent EPA air quality report for 2015. Additionally, we refer you to the Agency's previous submission at SEA Scoping Stage that included a list of updated reports/resources relating to air quality, water quality, drinking water, waste water etc. and which should be reflected in the SEA ER as appropriate and relevant to the Plan area.	Environmental Report SEA Spatial Information Sources has been cross checked to include any further information that may be relevant to the environmental assessment.
5.	In relation to existing air and climate issues (Section 5.5.3), the SEA ER states that advances in technology and fuel development will offset any rise in tail pipe emissions arising from increased car usage due to an increased population. Notwithstanding this, with a view to reducing reliance on fossil fuels, the use of non-fossil fuel sources should also be promoted. In this regard, we refer you to the DTTAS National Policy Framework for Alternative Fuels Infrastructure which should be considered, where relevant and as appropriate.	The final environmental report summarises the DTTAS National Policy Framework for Alternative Fuels Infrastructure in Section 4 and considers its recommendation in the final ER.
6.	For Objective B1 (Biodiversity related), the associated Draft Target first bullet point could be amended as follows "Promote siting of new development on non-sensitive sites".	The final ER has revised the Biodiversity Target ' <i>Considering of new development on non-sensitive sites</i> ' to ' <i>Promote siting of new development on non-sensitive sites</i> '.
7.	In addition, an additional SEA Indicator could include "the condition of the designated site".	Noted and included as Indicator in Final Environmental Report.
8.	For Objective A1 (Air, Noise and Climate Related), it may be useful to consider splitting this into two separate objectives, one for air quality and another for climate change adaptation / mitigation.	The final ER divides Air Quality Objectives into Objective A1 on Air Quality and A2 on Climate Change adaption as recommended by the EPA.
9.	With regards to material assets, there is also merit in providing indicators/targets for additional aspects such as the status of wastewater, drinking water and transport infrastructure.	The final ER provides of indicators and targets for the status of wastewater, drinking water and transport infrastructure as recommended by the EPA.
10.	In Section 4.2.7 Water Framework Directive, the SEA should include a reference to the second cycle of river basins management planning currently underway. In addition, it is worth noting that the Shellfish and Freshwater Fish Directives have been repealed.	Revised and updated in the final Environmental Report.
11.	Include a summary paragraph in Section 4.2.1 National Spatial Strategy 2002-2020, relating to the National Planning Framework, which is currently being prepared by the DHPCLG as a replacement for the National Spatial Strategy.	Summary of National Planning Framework included in final Environmental Report.

12.	Though the inclusion of Section 4.2.3 Delivering Homes, Sustaining Communities (2007) is noted, the relationship with the new Governmental housing strategy 'Rebuilding Ireland' should also be considered.	A summary of <i>Rebuilding Ireland, Action Plan for Housing and Homelessness</i> was outlined in Section 4.2.6 of the final ER and considered in the final over environmental assessment.
	Refer to previous submission at the SEA Scoping stage, which contained a list of possibly key influential plans/programmes that should be also taken into account.	
13.	Recommendation that additional information be provided in terms of how the potential for cumulative effects in particular, has been taken into account in the SEA process.	An overall Environmental Sensitivity Map for the Leixlip LAP area has been prepared and is included in the final Environmental Report to provide a visual representation of areas of vulnerability within the LAP area. The final Environmental Report also outlines any cumulative effects arising from areas with multiple environmental sensitives and identify appropriate mitigation measures.
14.	In paragraph two of Section 1.5 Screening for Appropriate Assessment, you should consider reviewing the Site Code referred to for the Rye Water Valley / Carton Special Area of Conservation, which appears to be incorrect?	The code for Rye Water Valley / Carton Special Area of Conservation is SAC 001398 and has been corrected in the final ER.
15.	We welcome that the mitigation measures recommended in the SEA ER, in terms of changes to the wording of policies and objectives, have been reflected in the Plan. We also acknowledge the many objectives and policies which have been provided to protect and manage environmental sensitivities / vulnerabilities	Noted. No change required
16.	The recommendation in Section 10.2 Monitoring Indicators that the monitoring programme for the implementation of the policies and objectives within the Draft LAP is integrated with the monitoring programme for the Kildare County Development Plan is welcomed. This monitoring programme should take into account any changes identified in the environmental baseline.	Noted
Summary of Issues Raised in Dept. of Arts, Heritage, Regional, Rural and Gaeltacht Affairs		Response
1.	The Draft Objective B1 for Biodiversity including Flora and Fauna is comprehensive but could benefit from mention of rare and protected plants in the draft targets. Rare and protected plants are found in the Liffey Valley and St. Catherines Wood for example.	Final Environmental Report includes a protective measure for rare and protected plants and in draft targets as follows: <i>'Maintain/Conserve rare and protected plants such as those found along the Liffey Valley and St. Catherines Woods.'</i>
2.	Section 5.1 notes the existence of 2 springs, one of which is a warm spring. Kildare County Council should note that there are 8 thermal springs of geological and scientific interest along the Kildare Meath border which are collectively referred to as the Kildare - Meath group or the Enfield group of springs. 1.	Information on thermal springs is included in Environmental Baseline Data for Biodiversity of final Environmental Report and will be assessed for potential impacts arising from the plan.

	<p>Louisa Bridge, Leixlip, Co. Kildare. This site is a pNHA and a SAC, tufa is present, 2. Brides River, Co. Meath.3. un-named, Co. Meath, 4. St. Patrick’s Well, Co. Kildare.5. Enfield - Kilbrook, Co. Kildare. This was described by Davies and Hill (1965)² as being on land of Mr. Thomas O’Hare at Kilbrook and was the warmest thermal spring found. It is also described by Fahy (1974 and 1975)⁶.Dysart Spring, Co. Kildare. 7. Hotwell House, near Rathcore, Co. Meath. Fahy (1975) shows this to be the second warmest of the eight. This was also described by Grainger and Davies (1966), while they mention Chara species (Stoneworts) as being present in 1966, Goodwillie (2001) did not find any in 2001. 8. Spring north of Longwood, Co. Meath.</p>	
	<p>Inland Fisheries Ireland</p>	<p>Response</p>
<p>1.</p>	<p>The River Ryewater supports a significant population of Brown trout and provides spawning habitat for a population of Atlantic salmon. The Royal Canal represent biologically valuable fisheries (and overall biodiversity) resources. The canal in Leixlip supports significant populations of coarse fish (including Pike, Perch, Roach, Rudd, Bream and Tench) not to mention a range of other freshwater aquatic species, plus all associated floral and faunal components in adjacent habitats. The presence of these fish populations highlights the sensitivity of the County’s aquatic systems in general.</p>	<p>Baseline data on biodiversity section of ER was updated to include the following section on Fish:</p> <p><i>The River Liffey and several of its tributaries are exceptional in supporting Atlantic salmon, Lamprey species and White-clawed Crayfish, all of which are listed under Annex II of the EU Habitats Directive in addition to Sea trout, resident Brown trout and many other fish populations. The Royal Canal represents a biologically valuable fishery (and overall biodiversity) resource. The canals in Kildare support significant populations of coarse fish, including Pike, Perch, Roach, Rudd, Bream and Tench in addition to other freshwater aquatic species, plus all associated floral and faunal components in adjacent habitats. The presence of these fish populations highlights the sensitivity of the County’s aquatic systems in general (Pers. Comm. Inland Fisheries Ireland, 2014).</i></p> <p>According to the NBDC records, White-clawed Crayfish was recorded in the River Liffey in 2005. This species is protected under the Habitats Directive and the Wildlife Acts.</p>
<p>2.</p>	<p>The LAP in considering the protection of the quality of the aquatic environment must address not only water quality but also include the protection of the physical environment, hydrological processes and biodiversity. Protection of the aquatic environment must imply a greater commitment than merely to prevent fish mortality or protect water quality.</p>	<p>It is considered that there are sufficient protective polices to ensure physical environment around the rivers, hydrological processes and biodiversity will protected. The Natural Heritage Objectives NHO1.1, NHO1.2 and NHO1.3 ensure that the physical environment around the Rye Water Valley/Carton SCA, Royal Canal and Liffey Valley pNHA are protected and conserved and will require an Ecological Impact Assessment for any development proposal to ensure its protection. This will consider any potential impacts on the Aquatic environment. It is also the Objective IO2.3 on Surface Water & Groundwater to maintain, improve and enhance the environmental and ecological quality of surface waters and groundwater in Leixlip.</p>

3.	Give greater consideration to sewerage treatment capacity to ensure ecological integrity and receiving waters are protected.	Noted
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Arising from the period of public display for proposed material alterations, a copy of the Proposed Material Alterations was sent to the Prescribed bodies and following its receipt, submissions were received relating specifically to the proposed material alterations. One submission, issued by the EPA, which is outlined below, made specific reference to the SEA Environmental Report. These recommendations were noted and where implemented, were screened prior to their incorporation in the Draft LAP.

Table 2.3 Review of EPA Submission on Material Alterations

	Summary of Issues Raised in EPA Submission	Response
1.	Kildare County Council should determine whether the implementation of the proposed Amendments/Alterations would be likely to have significant effects on the environment. This assessment should take account of the SEA Regulations Schedule 2A Criteria (S.I No. 436 of 2004) and should be subject to the same method of assessment as undertaken in the “environmental assessment” of the Draft Plan.	Noted and completed
2.	Following adoption of the Plan, an SEA Statement, should summarise the following: <ul style="list-style-type: none"> ▪ How environmental considerations have been integrated into the Plan; ▪ How the Environmental Report, submissions, observations and consultations have been taken into account during the preparation of the Plan; ▪ The reasons for choosing the Plan adopted in the light of other reasonable alternatives dealt with; and, ▪ The measures decided upon to monitor the significant environmental effects of implementation of the Plan. 	Noted and completed

2.7 Final Environmental Report

After the Leixlip LAP was adopted in November 2017, the Environmental Report was updated to take account of both public consultation stages, the SEA Screening of Material Alterations and the recommendations by the Environmental and Prescribed bodies in their submissions.

3 Alternatives

SEA Statements are required to include information on the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives considered.

Five alternatives were considered in the drafting of the SEA and the preparation of the Leixlip LAP. Options developed are not predictions or preferences; instead they offer a range of outcomes arising from different planning and development strategies. These five scenarios form the basis for comparative evaluation of the likely environmental effects of each as part of this study.

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

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

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

4 Monitoring Programme

4.1 Introduction

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

4.2 Monitoring Indicators

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

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

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

4.3 Sources

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

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

4.4 Reporting

A monitoring evaluation report on the effects of implementing the Local Area Plan is to be prepared in advance of the beginning of the review of the Plan. This report should address the indicators set out overleaf. Indicators and targets will be reviewed during the preparation of the monitoring evaluation report.

4.5 Responsibility

Kildare County Council will have an overall responsibility for collating existing relevant monitored data, the preparation of preliminary and final monitoring evaluation reports, the publication of these reports and, if necessary, the carrying out of corrective action. In addition, a number of national organisations will also carry monitoring. Monitoring of air and climate related considerations will also be carried out by the Environmental Protection Agency, whereas monitoring of impacts on biodiversity are carried out at a national level by the National Parks and Wildlife. In addition to Kildare County Council, the National Transport Authority and Transport Infrastructure Ireland will oversee changes relating to traffic and transport arising from the implementation of the Kildare LAP.

Table 4.1 Monitoring Environmental Indicators

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

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
		Wildfowl Sanctuaries, Refuges for Fauna or Flora and sites proposed for designation.		
POPULATION & HUMAN HEALTH	<ul style="list-style-type: none"> • Census population data • Rates of Unemployment per area • % increase in housing (number and type) 	<ul style="list-style-type: none"> • Minimise population exposure to high levels of noise, vibration and air pollution • Increase modal shift to public transport • Co-ordinate land use and transportation policies • Improve access to recreation opportunities 	Kildare County Council, CSO, DHPLG	CSO data every four years. On-going regular monitoring on increase in housing.
SOILS & GEOLOGY	<ul style="list-style-type: none"> • Rates of re-use / recycling of construction waste • Rates of cement / concrete production • Rates of brownfield site and contaminated land reuse and development • Rates of greenfield development 	<ul style="list-style-type: none"> • Prevent pollution of soil through adoption of appropriate environmental protection procedures during construction and maintenance works on site. • Ensure polluting substances are appropriately stored and banded. • Ensure appropriate management of existing contaminated soil in accordance with the requirements of current waste legislation. • Re-use of brownfield lands, rather than developing Greenfield lands, where possible. • Minimise the consumption of non-renewable sand, gravel and rock deposits. 	Kildare County Council, EPA	<p>Internal monitoring of likely significant environmental effects on a project by project basis</p> <p>Review of CORINE mapping (every c.5 years).</p> <p>Annual reviewing of brownfield rates</p>
WATER	<ul style="list-style-type: none"> • Compliance of potable water sources to water quality regulations • Compliance of surface waters with national and international standards • Potable and wastewater treatment capacities versus population • % of wastewater achieving 	<ul style="list-style-type: none"> • Support the achievement of “good” ecological and chemical status/potential of waterbodies in accordance with the Water Framework Directive. • Minimise flood risk through appropriate management of flood vulnerable zones. • Promote sustainable drainage practices to improve water quality and flow. 	Kildare County Council, OPW, EPA	On-going regular monitoring supplemented by data arising from development and delivery of measures within the Plan.

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
	<ul style="list-style-type: none"> tertiary treatment • Achievement of the Objectives of the River Basin Management Plans • Amount of new developments within flood plains • Annual costs of damage related to flood events 			
AIR QUALITY, CLIMATE & NOISE	<ul style="list-style-type: none"> • Traffic, Transport and Vehicular survey data • National and region specific emission data • Compliance with national standards • Reduction in greenhouse gas emissions • Number and extent of emission licensed facilities • Number of energy / renewable energy production facilities • Rates of energy / renewable energy consumption 	<ul style="list-style-type: none"> • Minimise air and noise emissions during construction and operation of new developments. • Promote minimisation of greenhouse gas emissions to the atmosphere • Limiting and adapting to climate change 	Kildare County Council, EPA	On-going regular monitoring supplemented by data arising from development and delivery of the measures within the plan (every c.2 years).
ARCHAEOLOGICAL, ARCHITECTURAL AND CULTURAL HERITAGE	<ul style="list-style-type: none"> • Updating of inventories to include new sites / features • Achieving the objectives of development plans regarding heritage protection • Range and extent of areas of heritage potential • Range and extent of areas of special planning controls 	<ul style="list-style-type: none"> • Regeneration of derelict and underutilised heritage sites • Improve appearance of areas with particular townscape character • Improve protection for protected archaeological sites and monuments and their settings, protected structures and conservation areas and areas of archaeological potential 	Kildare County Council, NPWS, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs	Monitoring of Statutory Consultee inputs on environmental effects as particular elements of the LAP are developed and advanced.

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
		<ul style="list-style-type: none"> Enhance access to sites of heritage interest 		
LANDSCAPE	<ul style="list-style-type: none"> Range and extent of Amenity Landscapes Rates of development within designated landscapes Rates of urban expansion Rates of deforestation Rates of agricultural land re-development % change of land use from rural to urban 	<ul style="list-style-type: none"> Improve protection for landscapes of recognised quality Maintain clear urban/rural distinctions Enhance provision of, and access to, green space in urban areas Ensure development is sensitive to its surroundings 	Kildare County Council, private developers/ landowners	Monitoring of Statutory Consultee inputs on environmental effects as particular elements of the LAP are developed and advanced.
MATERIAL ASSETS	<ul style="list-style-type: none"> Location / level of Infrastructure Achievement of development plan objectives; Rates of deprivation Rate of waste disposal to landfill statistics Range and extent of recycling facilities and services Rates of recycling 	<ul style="list-style-type: none"> Improve availability and accessibility of commercially provided facilities and public services Increase local employment opportunities Improve efficiencies of transport, energy and communication infrastructure Promotion of sustainable transport infrastructure i.e. increased public transport. Reduce the generation of waste and adopt a sustainable approach to waste management. 	Kildare County Council	

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

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