

Loughmacask Masterplan

Strategic Environmental Assessment (SEA)

Statement

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1 Strategic Environmental Assessment Statement for the Loughmacask Masterplan

1.1 Introduction

This is the Strategic Environmental Assessment (SEA) Statement for the adopted Loughmacask Masterplan (the 'Plan').

Strategic Environmental Assessment (SEA) is derived from European Directive 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment (also known as the 'SEA Directive'). SEA is a process for evaluating, at the earliest appropriate stage, the environmental quality and consequences of Plans or Programmes (P/Ps). The purpose is to ensure that the environmental consequences of Plans or Programmes are assessed both during their preparation and prior to their adoption. The SEA process also gives specified environmental authorities, interested parties and the general public, an opportunity to comment on the environmental impacts of the proposed Plans or Programmes and to be kept informed during the decision-making process.

The SEA Directive (2001/42/EC) was transposed into national legislation by the:

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

The latter Regulations (i.e. S.I. No. 436 of 2004 as amended by S.I. No. 201 of 2011) provide for SEA for statutory development plans. The former Regulations (i.e. S.I. No. 435 of 2004 as amended by S.I. No. 200 of 2011) provide for SEA for other plans, including non-statutory land use plans such the Loughmacask Masterplan.

This SEA Statement is a reflective document that looks back on the SEA process, what has been achieved and it also sets out what monitoring will be done in the future.

1.2 Content of the Strategic Environmental Assessment Statement



In accordance with Article 16(2)(b) of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004, (as amended by S.I. 200 of 2011), the SEA Statement will summarise the following:



- (i) how environmental considerations have been integrated into the Plan or programme, or modification to a plan or programme;
- (ii) how:
 - (I) the environmental report prepared pursuant to article 12,
 - (II) submissions and observations made to the competent authority in response to a notice under article 13, and
 - (III) any consultations under article 14.have been taken into account during the preparation of the plan or programme, or modification to a plan or programme,
- (iii) the reasons for choosing the plan or programme, or modification to a plan or programme, in the light of the other reasonable alternatives dealt with, and
- (iv) the measures decided upon to monitor, in accordance with article 17, the significant environmental effects of implementation of the plan or programme or modification to a plan or programme.

1.3 Key Stages of the Strategic Environmental Assessment Process

A summary of the key stages of the SEA process are set out in the Table 1.1 below.

Table 1.1: Key Stages of the SEA Process for the Loughmacask Masterplan

SEA Stage	SEA Actions	Progress
1. Screening	<p>The requirement to undertake a SEA is mandatory for certain Plan / Programme (P / P). Where SEA is not a mandatory requirement, the P / Ps is subject to a 'Screening process', to consider if it is <i>likely to have significant effects</i> on the environment, and therefore, if SEA is required.</p> <p>In accordance with Article 9 of the Regulations, screening of the Loughmacask Masterplan determined that the Plan has potential for significant effects on the environment and that the potential for effects on European sites could not be excluded. As such the Plan required SEA (and Stage 2 Appropriate Assessment).</p>	<p>Completed</p> 
2. Scoping	<p>Kilkenny County Council undertook consultation with the environmental authorities specified in article 11 of the Regulations on:</p> <ul style="list-style-type: none"> methods of assessment for the SEA; contents and level of detail in the Plan / Programme; the stage in the Plan or Programme-making process; and the extent to which certain matters are more appropriately assessed at different levels in the decision-making process in order to avoid duplication of environmental assessment. <p>Consultation with the environmental authorities with an invitation to return submissions or observations. Submissions / observations were received from the following environmental authorities:</p> <ul style="list-style-type: none"> The Environmental Protection Agency (EPA); Inland Fisheries Ireland (IFI) - under the Department of Environment, Climate and Communications (DECC); and Geological Survey, Ireland (GSI) - under the Department of Environment, Climate and Communications (DECC). <p>The submissions / observations provided information on legislation, guidance, sources of information, the baseline environment, and on key considerations, which assisted, guided and informed the preparation of the Draft Plan and the Strategic Environmental Assessment.</p>	<p>Completed</p> 

SEA Stage	SEA Actions	Progress
3. Environmental Assessment and Environmental Report	<p>An assessment of the likely significant impacts on the environment as a result of the Plan through the preparation of the SEA Environmental Report. This was an iterative process during the preparation of the Draft Plan.</p> <p>The Environmental Report was placed on public display with the Draft Plan, the Natura Impact Statement and Strategic Flood Risk Assessment between 26 August – 7 October 2022.</p> <p>The Chief Executive prepared a report on the submissions and observations received and made recommendations for minor alterations to the Plan. The Draft Plan and the Chief Executive's Report were considered by the Elected Members of Kilkenny County Council where they resolved to adopt the Loughmacask Masterplan.</p>	<p>Completed</p> 
4. SEA Statement	<p>With the adoption of the Loughmacask Masterplan, the SEA process includes the finalisation of the SEA Environmental Report and the preparation of the SEA Statement (this report) in accordance with Article 16 of SEA 2001-2022, summarising:</p> <ul style="list-style-type: none"> how environmental considerations have been integrated into the plan; how the environmental report; submissions and observations made to the planning authority in response to a notice under article 12, and any consultations under article 14 of the Regulations have been taken into account during the preparation of the plan; the reasons for choosing the plan as adopted in the light of the other reasonable alternatives dealt with; and the measures decided upon to monitor, in accordance with article 17, the significant environmental effects of implementation of the plan. 	<p>Completed</p> 
5. SEA Monitoring	<p>The Plan is adopted and implemented, and the environmental effectiveness of the implementation of the Plan is monitored and reported on through the life of the Plan.</p>	<p>On-going</p>

1.4 Appropriate Assessment and Strategic Flood Risk Assessment

In addition to the SEA, there is a requirement under the EU Habitats Directive (92/43/EEC) (as transcribed into Irish law) to assess whether the Plan, either individually or in combination with other plans or projects, is likely to have significant effect on a European site, which includes Special Protection Areas (SPAs) and Special Areas of Conservation (SACs), in view of the site's conservation objectives. The requirement for an assessment derives from Article 6 of the directive, and in particular Article 6(3) which requires that:

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

The Loughmacask Masterplan was subject to Screening as required by Article 6(3) of the Habitats Directive (92/43/EEC) for the requirement for AA. The finding of the Screening process was that taking account of local surface water features and their connection to the European sites (Natura 2000 sites), the potential for impact on a European site cannot be excluded having regard to the precautionary principle. Therefore the Loughmacask Masterplan has been subject to 'Stage 2 AA' as required by the Habitats Directive (92/43/EEC) and a Natura Impact Report (NIR) has been prepared and accompanies the adopted Masterplan, the SEA Environmental Report and the Strategic Flood Risk Assessment (SRFA).

The Development Plan, incorporating the objective for the Loughmacask Masterplan was subject to an assessment of flood risk for the plan area in accordance with *“The Planning System and Flood Risk Management – Guidelines for Planning Authorities”*, 2009, published by the Department for the Environment, Heritage and Local Government and the Office of Public Works (OPW).

The Loughmacask Masterplan has also be subject to Strategic Flood Risk Assessment (SFRA) in accordance with *“The Planning System and Flood Risk Management – Guidelines for Planning Authorities”*, 2009. The SFRA, which was prepared in parallel with the plan-making and SEA processes, addresses the assessment and management of flood risk and surface water in the masterplan area and assisted Kilkenny County Council in making informed strategic land-use planning decisions in the making of the plan.

The plan-making, SEA, SFRA and AA teams worked together throughout the Plan process. As a precautionary approach, the Plan included environmental protection criteria which require avoidance of potential impact on European Sites in the first instance and reiterated the legislative requirement for AA screening and full AA where potential for effects exists. The findings of the AA and SFRA were integrated into the SEA process.

2 Integration of Environmental Considerations in to the Plan

2.1 Introduction

This section details how both the SEA Environmental Report and submissions and observations made to the planning authority on the Environmental Report and SEA process have been taken into account during the preparation of the Loughmacask Masterplan.

2.2 SEA Consultation

A number of opportunities are integrated into the plan-making process to allow for consultation with the environmental authorities and the general public on the plan and SEA:

- Pre-draft Consultation
- Pre-draft SEA Scoping; and
- Draft Plan Consultation.

Submissions and observations were made at each of these stages and these informed the preparation and finalisation of the Plan and the SEA process.

2.2.1 Pre-draft Consultation

Public consultation in the form of a presentation and questions and answers sessions were held on the Draft Loughmacask Masterplan in the local Dicksboro GAA Clubhouse on the 20 January 2020.

Due to the impact of Covid-19, the process to draft the Masterplan was stalled during 2020 and 2021 and recommenced in 2022.

2.2.2 SEA Scoping Consultation

In accordance with Article 11 of the SEA Regulations 2004, as amended, a consultation on the SEA was undertaken with the specified environmental authorities.

SEA scoping ensures that the environmental assessment process is focused on the relevant environmental issues and examines issues at the appropriate level of detail and allows for the incorporation of the views of the environmental authorities within the Plan and the SEA Environmental Report.

Scoping with the environmental authorities was initiated and submissions and observations were received from the following Environmental Authorities:

- The Environmental Protection Agency (EPA);
- Inland Fisheries Ireland (IFI) - under the Department of Environment, Climate and Communications (DECC); and
- Geological Survey Ireland (GSI) - under the Department of Environment, Climate and Communications (DECC).

The submissions provided information on sources of guidance and useful resources and aspects for consideration and incorporation in the Plan and in the SEA Environmental Report.

A summary of the submissions is provided in the Table 2.1.

Table 2.1: SEA Submissions / Observations from Environmental Authorities

Environmental Authority	Outline of Nature of Submission	Response to Consideration of Nature of Submission
EPA	Ensure that the Plan aligns with key relevant higher-level plans and programmes and is consistent with the relevant objectives and policy commitments of the National Planning Framework and the Regional Spatial and Economic Strategy for the Southern Region.	The Loughmacask Masterplan has been set within the context of the relevant higher level plans, including the objectives and policy of the NPDP and RSES for the Southern Region (refer to Section 3 of SEA En. Report).
	Provides links to current guidance / good practice in relation to SEA.	The preparation of the SEA Environmental Report has had regard to current guidance and good practice.
Minister for Environment, Climate and Communications (Inland Fisheries Ireland)	The submission notes that the main river channel impacted by the Loughmacask Masterplan is the Bregagh River, which flows to the Nore River, a nationally important salmonid fishery. The Nore River is part of the River Barrow and River Nore Special Area of Conservation (SAC).	This is acknowledged in the SEA Environmental Report and the AA Natura Impact Report.
	The lower Bregagh (Kilkenny) 030, currently has an Ecological Status of <i>Poor</i> and is <i>At Risk</i> of not reaching Good Status by 2027.	Status of the river is noted in the SEA Environmental Report.
	In addition to Agriculture, the significant pressures for the Bregagh are Industry	Pressures are noted in the SEA Environmental Report.

	and Hydromorphology (Channelisation and Embankments).	
	<p>Biodiversity</p> <p>Identification and protection of significant habitats should pay particular attention to aquatic habitats, particularly channels which have been degraded by poor planning and design.</p> <p>Impacts from construction of new water crossings or upgrade of existing crossings should be considered.</p> <p>IFI should be consulted at the design stage for any works which have the potential to impact the aquatic habitat.</p>	<p>Reflected in the Masterplan and in the SEA Environmental Report.</p> <p>Considered in the Masterplan and in the SEA Environmental Report.</p> <p>Noted in the Masterplan.</p>
	<p>Population and Human Health</p> <p>Consideration should be given to the positive impact of access to healthy aquatic and riparian habitats for wellbeing and mental health.</p> <p>The protection of the river as an angling resource, as well as being important for the water environment, is also of significance for its recreational, cultural and landscape value.</p>	<p>Reflected in the Masterplan and SEA Environmental Report.</p> <p>Noted in the Masterplan and SEA Environmental Report.</p>
	<p>Soil</p> <p>Run-off from hard surfaces and roads should be managed to protect water courses. The incorporation of sustainable drainage systems (SuDS) can attenuate pollution from transport infrastructure, including suspended solids. When adequately designed and constructed, these can also add amenity and recreational value.</p> <p>Reference should be made to the Inland Fisheries Ireland document <i>Planning for Watercourses in the Urban Environment</i> for further information.</p>	<p>Noted in the Masterplan and SEA Environmental Report.</p> <p>Noted in the Masterplan and SEA Environmental Report.</p>

	<p>Water</p> <p>IFI advocates the application of the precautionary principle when considering the fisheries resource in the screening and planning process.</p> <p>Regarding the current baseline environmental conditions IFI's WFD Fish surveys should be taken into consideration.</p> <p>Article 5 of the Surface Water Regulations (SI 272 of 2009) requires that a public authority shall not knowingly cause or allow deterioration in the chemical or ecological status of a body of surface water. Article 28(2) states that a surface water body whose status is determined to be less than good shall be restored to at least good status.</p> <p>The Masterplan should permit and contribute to the restoration of the Breaghagh River to Good ecological status within the third cycle of the River Basin management Plan. This should include specific provisions to address the significant pressures on the sub-catchment identified in the EPA's catchment assessment and referred to above.</p> <p>Particular attention should be given to the removal of poorly sited and poorly designed water crossings which act as barriers to fish migration. Engineering works on or in watercourses should not negatively impact their hydromorphological or ecological status.</p> <p>Reference should be made to Inland Fisheries Ireland's <i>Guidelines on Protection of Fisheries during construction works in and adjacent to Waters</i> when construction works are being planned or carried out.</p> <p>Where there is potential for the removal or replacement of barriers to fish passage, for</p>	<p>Noted in the Masterplan and SEA Environmental Report.</p> <p>Noted in SEA Environmental Report.</p> <p>Noted in SEA Environmental Report.</p> <p>Noted in the Masterplan and SEA Environmental Report.</p> <p>Noted in the Masterplan and SEA Environmental Report.</p> <p>Noted in the Masterplan and SEA Environmental Report.</p>
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	<p>example weirs, poorly designed and/or undersized bridges and culverts, these should be considered in the design phase. Consultation should be carried out with Inland Fisheries Ireland before such proposals are submitted for planning approval.</p> <p>Pollution from diffuse urban sources such as storm water overflows, combined sewer and storm water overflows and run-off from hard impermeable surfaces such as roads should also be considered. Road run-off can contain suspended solids, toxic metals, hazardous chemicals and microplastics. These pollutant levels must be reduced to an acceptable level before being allowed to discharge into surface waters.</p> <p>Sustainable drainage systems (as a component of water sensitive urban design) or similar passive treatment systems should be mandatory in new urban or road developments. Retrofitting of SuDS in urban areas should be considered where possible.</p> <p>The hydraulic and organic capacity of the available wastewater treatment infrastructure should be considered before planning is provided for new development. This should be included as a prerequisite of any application for planning.</p>	<p>Noted in the Masterplan and SEA Environmental Report.</p> <p>Noted in the Masterplan and SEA Environmental Report.</p> <p>Noted in the Masterplan and SEA Environmental Report.</p> <p>Noted in the Masterplan and SEA Environmental Report.</p>
	<p>Climate Change</p> <p>The co-benefits of climate resilience measures with water quality, biodiversity and flood mitigation should be maximised. These can also improve human wellbeing and quality of life.</p> <p>Appropriate riparian planting can improve the climate resilience of watercourses. Maintaining and restoring channel</p>	<p>Noted in the Masterplan and SEA Environmental Report.</p> <p>Noted in the Masterplan and SEA Environmental Report.</p>

	<p>sinuosity also enhances climate resilience and flood mitigation.</p>	
	<p>Material Assets</p> <p>This should include an assessment of roads and bridges and their interconnectedness with the measures identified above, especially hydromorphology, urban run-off and climate resilience through flood / drought mitigation.</p>	<p>Noted in the Masterplan and SEA Environmental Report.</p>
<p>Minister for the Environment, Climate and Communications (Geological Survey of Ireland)</p>	<p>Geology, Hydrogeology & Soils</p> <p>The Geological Survey of Ireland (GSI) encourages the use of and reference to their publicly available datasets and studies – which are listed in the submission.</p> <p>It is noted that there are several aquifers classed as ‘Regionally Important Aquifer - Karstified (diffuse)’, a ‘Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones’, and a ‘Regionally important gravel aquifer’ underlying the area that is subject to the Draft Loughmacask Masterplan. It is, therefore, recommended that the GSI’s Groundwater Viewer be used to identify areas of High to Extreme Vulnerability in the assessment, as any groundwater-surface water interactions that might occur would be greater in these areas.</p> <p>It is also recommended that the GSI’s Aggregate Potential Mapping viewer be used to identify areas of High to Very High source aggregate potential within the area.</p>	<p>Regard has been had to the relevant GSI datasets and studies in the preparation of the SEA Environmental Report.</p>

2.2.3 Draft Plan Consultation

The Draft Loughmacask Masterplan, together with the SEA Environmental Report, the Natura Impact Statement and the Strategic Flood Risk Assessment, were placed on public display for a 6 week period, between 26 August 2022 and 7 October 2022.

Public consultation sessions with regards the Draft Loughmacask Masterplan took place at:

- Dicksboro GAA Clubhouse, on 6 September 2022; and
- St. Canice's Neighbourhood Hall, on Monday 19 September and Monday 17 October 2022.

Public consultation in the form of a drop-in evening, to provide an opportunity for the public to view the Draft Plan and speak with a member of the Planning / Roads and Housing team to clarify and issues in advance of making submissions was held at St. Canices Neighbourhood Hall, on Monday 10 October 2022.

A further meeting was held at the Dicksboro GAA Clubhouse on the 6 December 2022 to review masterplan considerations.

One hundred and seventy-five submissions were received during the consultation period. In March 2023, the Chief Executive (CE) prepared a report on the submissions and observations received. The majority of the submissions related to:

- Traffic and Road Infrastructure / Active Travel;
- Pedestrian / cycle infrastructure;
- Existing permitted development within the masterplan area;
- The nature of the existing 'Butts' area;
- Heritage considerations;
- Biodiversity / Ecological considerations;
- Irish Water Infrastructure;
- Potential flooding / wetland;
- CBS School development;
- Social housing;
- Amenity;
- Zoning;
- Minor amendment to the boundary of the masterplan;

The EPA provided a submission on the SEA Environmental Report with links to SEA guidance. The Geological Survey Ireland (GSI) also provided links to GSI data and mapping.

The response to issues raised in the submissions and observations was incorporated into the CE’s Report (March 2023). On foot of the submissions and observations, the CE’s report recommended a number of alterations to the Draft Masterplan. These alterations were subject to screening for AA and SEA.

Following review of the CE’s Report, the Draft Masterplan and its proposed amendments, the Screening Report for Strategic Environmental Assessment and the Screening Report for Appropriate Assessment were placed on public display between 21 April and 26 May 2023. A drop-in public information evening on the amendments was held in St Canice’s Neighbourhood Hall on Monday 8 May 2023.

The Loughmacask Masterplan was adopted by the members of Kilkenny County Council in June 2023.

2.3 Selection of Strategic Environmental Objectives for Assessment of the Masterplan

A series of Strategic Environmental Objectives (SEOs) were selected (refer to Table 2.2) in line with current guidance and also with specific reference to the SEA for the Kilkenny Development Plan. The SEOs provide a basis for the assessment of the environmental effects of the Plan and are framed in such a manner as to enable the Plan to be fully assessed in environmental terms.

SEOs are distinct from the objectives within the Plan, although they will often overlap and are developed from international, national and regional policies which generally govern environmental protection objectives. Appropriate targets and indicators have been developed in the SEA Environmental Report (refer to Chapter 10). The scoping aspect of the SEA process affords an opportunity for consultees to provide input to the range and detail of the environmental objectives.

Table 2.2: Strategic Environmental Objectives (SEOs) for Loughmacask Masterplan

Guiding Principle	SEO Reference	SEO Description
<i>Biodiversity (Flora and Fauna)</i>		
Guiding Principle:	B1	To ensure compliance with the Habitats and Birds Directives with regard to the protection of Natura 2000 Sites and Annex habitats and species.

Guiding Principle	SEO Reference	SEO Description
No net contribution to biodiversity losses or deterioration.	B2	Ensure no adverse effects on the integrity of any European site, with regard to its qualifying interests, associated conservation status, structure and function.
	B3	Safeguard national, regional and local designated sites and supporting features which function as stepping stones for migration, dispersal and genetic exchange of wild species.
	B4	Enhance biodiversity in line with the National Biodiversity Strategy and its targets.
Population and Human Health		
Guiding Principle: Improve quality of life for all ages and abilities based on high-quality, serviced, well connected and sustainable residential, working, educational and recreational environments.	P1	Consolidate growth and limit urban sprawl.
	P2	Enhance human health and promote healthy living through access to active travel opportunities, especially walking and cycling.
	P3	Safeguard the county's citizens from environment-related pressures and risks to health and well-being.
Water		
Guiding Principle: Protection, improvement and sustainable management of the water resource.	W1	Ensure that the status of water bodies is protected, maintained and improved in line with the requirements of the WFD and MSFD.
	W2	To prevent pollution and contamination of ground water.
	W3	Avoid inappropriate development in areas at risk of flooding and areas that are vulnerable to current and future erosion.
	W4	Integrate sustainable water management solutions (such as SuDS, porous surfacing and green roofs) into development proposals.
Land and Soils		
Guiding Principle: Ensure the long-term sustainable management of land.	S1	Protect soils against pollution, and prevent degradation of the soil resource.
	S2	Safeguard areas of prime agricultural land and designated geological sites.

Guiding Principle	SEO Reference	SEO Description
Air		
Guiding Principle: Achieving transition to a competitive, low carbon, climate-resilient economy that is cognisant of environmental impacts.	A1	To avoid, prevent or reduce harmful effects on human health and the environment as a whole resulting from emissions to air from all sectors with particular reference to emissions from transport, residential heating, industry and agriculture.
	A2	Maintain and promote continuing improvement in air quality through the reduction of emissions and promotion of renewable energy and energy efficiency.
	A3	Meet Air Quality Directive standards for the protection of human health — Air Quality Directive.
	A4	Decrease noise pollution and move closer to WHO recommended levels.
Climate		
Guiding Principle: Achieving transition to a competitive, low carbon, climate-resilient economy that is cognisant of environmental impacts.	C1	Contribute towards the reduction of greenhouse gas emissions in line with national targets.
	C2	Integrate sustainable design solutions into infrastructure (e.g. energy efficient buildings; green infrastructure, modal shift).
	C3	Promote development resilient to the effects of climate change.
	C4	Promote the use of renewable energy, energy efficient development and increased use of public transport.
Material Assets		
Guiding Principle: Sustainable and efficient use of natural resources	M1	Optimise existing infrastructure and provide new infrastructure to match population distribution proposals.
	M2	Promote the circular economy, reduce waste, and increase energy efficiencies.
	M3	Ensure there is adequate sewerage and drainage infrastructure in place to support new development.
	M4	Reduce the energy demand from the transport sector and support moves to electrification of road and rail transport modes.
Cultural Heritage		

Guiding Principle	SEO Reference	SEO Description
Guiding Principle: Safeguard cultural heritage features and their settings through responsible design and positioning of development.	H1	Protect places, features, buildings and landscapes of cultural, archaeological or architectural heritage.
Landscape		
Guiding Principle: Protect and enhance the landscape character.	L1	To provide a framework for identification, assessment, protection, management and planning of landscapes having regard to the European Landscape Convention.
	L2	Protect identified views and prospects of significance.

2.4 Mitigation Measures

The environmental assessment of the provision of the Masterplan (Section 8) did not identify potential for significant negative environmental effects but did identify a number of potential uncertain effects and appropriate mitigation has been considered and provided for.

Proposals for development within the Loughmacask Masterplan area must comply as appropriate with the relevant provisions included within the Kilkenny City and County Development Plan 2021-2027. Given that the Masterplan sits within and at a lower level in the planning hierarchy, the measures contained to the Development Plan, and in its Natura Impact Report (NIR), SEA Environmental Report / SEA Statement and Strategic Flood Risk Assessment (SFRA) are applicable to the Masterplan.

Therefore, the key environmental protection measures included in the Kilkenny City and County Development Plan 2021-2027, provide for appropriate and detailed mitigation of potential uncertain environmental effects of the Masterplan. These measures include the following selected aims / policies / objectives:

Strategic Objectives

- 2A To support and encourage sustainable compact growth and settlement patterns, integrate land use and transportation, and maximise opportunities through

development form, layout and design to secure climate resilience and reduce carbon emissions.

- 2B To support the implementation of the National Climate Action Plan and the National Climate Action Charter for Local Authorities, and to facilitate measures which seek to reduce emissions of greenhouse gases by embedding appropriate policies within the Development Plan.*
- 2C To promote, support and direct effective climate action policies and objectives that seek to improve climate outcomes across the settlement areas and communities of County Kilkenny helping to successfully contribute and deliver on the obligations of the State to transition to low carbon and climate resilient society,*
- 2D To integrate appropriate mitigation and adaptation considerations and measures into all forms of development.*
- 2E To ensure that the Development Plan transposes, supports and implements strategic objectives of the National Planning Framework and the Southern Regional Spatial and Economic Strategy to create an enabling local development framework that:*
 - (a) promotes and integrates important climate considerations in local development and the assessment of planning applications and*
 - (b) supports the practical implementation of national climate policy and targets to assist in the delivery of the national transition objective.*
- 2F To adopt nature-based approaches and green infrastructural solutions as viable mitigation and adaptation measures to reduce greenhouse gas emissions where feasible. The Council will promote and support physical activity, active recreation and an active lifestyle.*
- 2G To reduce energy related CO2 emissions of Kilkenny County Council.*
- 2H To achieve the commitment under the European Climate Alliance to the reduction of greenhouse gas emissions by 10 percent every 5 years.*

Open Space

Strategic Aim: To ensure the provision of open space and recreational facilities in order to maintain, and improve open spaces that contribute to the well-being and making of place for the benefit of residents, workers and visitors to the County while protecting and enhancing biodiversity.

Heritage, Culture and the Arts

Strategic Aim: To seek the protection and sustainable management of the arts, culture and heritage of Kilkenny for the benefit of current and future generations; to encourage the collection of knowledge to inform its protection; and to promote access to, awareness of and enjoyment of Heritage, Arts and Culture, to further develop the infrastructure and actively support engagement with communities, throughout Kilkenny

The Council will support the implementation of the National Heritage Plan and National Biodiversity Action Plan.

Biodiversity Policy / Objectives

9A *Continue to identify and map habitats and green infrastructure of county importance, and raise awareness and understanding of the county's natural heritage and biodiversity identifying green corridors and measures to connect them.*

- To ensure that development proposals, where relevant, improve the ecological coherence of the Natura 2000 network and encourage the retention and management of landscape features that are of major importance for wild fauna and flora as per Article 10 of the Habitats Directive.*
- To protect and where possible enhance wildlife habitats and landscape features which act as ecological corridors/networks and stepping stones, such as river corridors, hedgerows and road verges, and to minimise the loss of habitats and features of the wider countryside (such as ponds, wetlands, trees) which are not within designated sites.*
- To ensure that appropriate mitigation and/or compensation measures to conserve biodiversity, landscape character and green infrastructure networks are required in developments where habitats are at risk or lost as part of a development.*

- *Require all developments in the early pre-planning stage of the planning process to identify, protect and enhance ecological features and habitats, and making provision for local biodiversity (e.g. through protection of existing breeding sites, and provision of appropriate new infrastructure such as swift, bat and barn owl boxes, bat roost sites, green roofs, etc.) and provide links to the wider Green Infrastructure network as an essential part of the design process.*
- *The Council will consult the Geological Survey of Ireland when considering undertaking, approving or authorising developments which are likely to affect County Geological Sites. In some locations, in consultation with landowners, it may be possible to access geological and geo-morphological features of interest, and the Council will support and facilitate this where appropriate.*
- *To protect existing woodlands, trees and hedgerows which are of amenity or biodiversity value and/or contribute to landscape character of the county, and to ensure that proper provision is made for their protection and management, when undertaking, approving or authorising development.*
- *To retain hedgerows, and other distinctive boundary treatment such as stone walls, when undertaking, authorising or approving development; where the loss of the existing boundary is unavoidable as part of development, to ensure that a new hedgerow is planted using native species, and species of local provenance to replace the existing hedgerow and/or that the wall is re-built using local stone and local vernacular design.*
- *The Council will protect, manage and enhance the wetlands of the County having regard to the 'County Kilkenny Preliminary Wetland Survey, 2020' and subsequent surveys published during the lifetime of this plan. The Council will also ensure that there is an appropriate level of assessment in relation to proposals which involve draining, reclaiming or infilling of wetland habitats.*

Landscape

The Council will protect and sustainably manage the landscape character of County Kilkenny, having regard to the findings of the landscape character assessment and the Development

Management Requirements as set out in this chapter for the sustainable development of the county and appropriate conservation of its landscape character.

Views and Prospects Policy / Objectives

The Council will preserve and support the improvement of places or areas from which views or prospects of special amenity value exist, as identified in Appendix H and on Figure 9.2.

Architectural Heritage Policy / Objectives

It is Council policy to ensure the protection of architectural heritage by including all structures considered to be of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest in the Record of Protected Structures.

Architectural Conservation Area (ACA) Policy / Objectives

9J To ensure the preservation of the special character of each ACA listed in this Plan (See Table 9.2 and Volume 2 Heritage Strategy) with particular regard to building scale, proportions, historical plot sizes, building lines, height, general land use, fenestration, signage, and other appendages such as electrical wiring, building materials, historic street furniture, paving and shopfronts.

Water and Waste Water Infrastructure Policy / Objectives

Strategic Aim: To ensure a sufficient level of water services within the county for the implementation of the core strategy, provide a framework for the protection of the environment, including water quality, the avoidance of flood risk and the provision of a high-quality telecommunications infrastructure.

10A To facilitate Irish Water and to assist, subject to service level agreements, with the provision of water and wastewater infrastructure provision in accordance with the water services strategic plan, made in accordance with the Water Services Act 2007.

Water Framework Directive Objectives

10B To implement the measures of the River Basin Management Plan, including continuing to work with communities through the Local Authority Waters Programme to restore and improve water quality in the identified areas of action.

Water Quality Objectives

10C To complete the mapping of source protection areas and to map Source Protection Areas for any new public water supply schemes as appropriate.

10D To ensure that Source Protection Areas are identified for any multiple unit housing developments with private water supplies.

Air Quality Policy / Objectives

The Council will promote the best ambient air quality compatible achievable with sustainable development.

Pollution Control Objectives

10E To continue to update noise mapping in accordance with revised or updated thresholds for noise mapping.

10F Develop priority list of actionable works to mitigate against excessive noise and implement subject to cost benefit analysis.

Flood Management Policy / Objectives

It is Council policy to adopt a comprehensive risk-based planning approach to flood management to prevent or minimise future flood risk. In accordance with the Planning System and Flood Risk Management – Guidelines for Planning Authorities, the avoidance of development in areas where flood risk has been identified shall be the primary response. The Council will ensure that new developments do not reduce the effectiveness or integrity of any existing or new flood defence infrastructure, and will facilitate the provision of new, or the reinforcement of existing, flood defences and protection measures where necessary.

Waste Management Objectives

10G To implement the Southern Region Waste Management Plan.

Seveso Sites Objectives

10H It is an objective of the Council to, with due regard to the provisions of the Major Accidents Directive and Regulations, give effect to the Directive by controlling development with respect to—

- *The siting of Major Accident Hazard sites*
- *The modification of an existing Major Accident Hazard site*
- *Development in the vicinity of a Major Accident Hazard site*

Renewable Energy Policy / Objectives

Strategic Aim: To generate 100% of electricity demand for the County through renewables by 2030 by promoting and facilitating all forms of renewable energies and energy efficiency improvements in a sustainable manner as a response to climate change in suitable locations having due regard to natural and built heritage, biodiversity and residential amenities.

Integration of Land Use and Transport Objectives

12A To plan for and progressively implement a sustainable, integrated and low carbon transport system by enhancing the existing transport infrastructure in terms of road, bus, rail, cycling and pedestrian facilities and interfacing different modes as the opportunity arises.

12B To plan for a transition towards sustainable and low carbon transport modes, through the promotion of alternative modes of transport, and ‘walkable communities’ together with promotion of compact urban forms close to public transport corridors to encourage more sustainable patterns of movement in all settlements.

12D To develop a 10-minute city framework for Kilkenny City to map and identify infrastructural requirements to support the ‘10 minute’ city.

Modal Share Objectives

12E To deliver on sustainable mobility with an accompanying investment in infrastructure to provide for integration between all modes of transport to support the use of sustainable travel choices.

12G To achieve a modal shift from the private car to walking or cycling in accordance with the targets in Table 12.1 for County Kilkenny.

Loughmacask Masterplan

Additionally, the Masterplan has been informed by the sensitivities of the receiving environment as identified herein. While no significant negative environmental effects are predicted to arise as a result

of the Masterplan, various provisions of the Masterplan will have the effect of avoiding and / or minimising potential adverse environmental effects. These include but are not limited to the following:

- The Masterplan provides the framework for a compact, planned new urban neighbourhood adjoining and integrated with the existing city centre; avoiding unplanned, one-off scattered or ribbon development at the urban-rural interface – and, therefore, minimising the impacts of unplanned urban sprawl and greenfield development, e.g. habitat loss.
- Vegetated setbacks and buffers will be retained around the River Breaghagh and Lough Macask, providing for habitat conservation, reduced flood risk and safeguarding of water quality.
- The proposed green spine will buffer future residential development from the existing industrial facility (a Seveso site), Grassland Fertilizers.
- Mature hedgerows and treelines will be retained, and a network of green infrastructure created, safeguarding ecological corridors.
- The Masterplan proposals will promote sustainable mobility and reduce through traffic, thereby minimising environmental effects (including greenhouse gas emissions, noise and air quality impacts) associated with vehicles with internal combustion engines.
- Development of the Masterplan lands will incorporate a network of SuDS measures, including bio-retention swales, reducing flood risk and safeguarding water quality.
- The existing 'Butts' community will be integrated into the Masterplan area, avoiding community severance that may otherwise arise.
- As detailed in the Site Specific Flood Risk Assessment (SSFRA) prepared in respect of the Masterplan, there are areas of localised flood risk associated with the River Breaghagh and Lough Macask. While all lands earmarked for residential development under the Masterplan are situated in Flood Zone C, future proposed development adjoining / proximate to Flood Zones A or B near the River Breaghagh could be at risk of flooding under the future (i.e. climate change) scenarios. Additionally, the zone associated with a low probability of groundwater flooding at Lough Macask partially enters into areas earmarked for residential and community use. Development in the

Masterplan area will incorporate sustainable drainage systems (SuDS) measures to mitigate flood risk and mitigation-by-design (e.g. finished floor levels above the 1-in-100 year fluvial flood level, and step-ups from road levels) to prevent ingress.

2.5 Monitoring

Monitoring of the implementation of the Masterplan and its implications on the environment is paramount to ensure that the environment is not adversely affected. In accordance with Article 17 of the SEA Regulations, 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.”*

While considerable environmental data is directly available to the Council, other sources of information will be accessed to provide a comprehensive view of the impact of the implementation of the Plan. In this regard the local authority will work with other agencies with environmental mandates to gather data for the purposes of monitoring the Plan. Therefore, while monitoring specific elements of the environment is not strictly the preserve of the Council, Kilkenny County Council will continue to liaise and work with the Environmental Protection Agency, National Parks and Wildlife Service, Central Statistics Office and others in the pursuit of environmental conservation and protection through existing environmental monitoring procedures. Monitoring details are set out at Section 4 of this SEA Statement

3 Consideration of Alternative Scenarios for the Development Plan

3.1 Introduction

One of the critical roles of the SEA was to facilitate an evaluation of the likely environmental consequences of a range of alternative scenarios for accommodating development at Loughmacask as a result of the Masterplan. Article 5 of the SEA Directive requires the consideration of reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme and the significant environmental effects of the alternatives proposed.

In accordance with SEA guidelines the alternatives put forward should be reasonable, realistic and capable of implementation. They should also be in line with the appropriate strategic level at which the plan will be implemented within the national planning hierarchy.

The assessment of the alternatives development and capacity scenarios is carried out with reference to potential impacts on the Strategic Environmental Objectives (SEOs) set out in Section 2.3 of this report and presented in Table 3.1.

3.2 Development Alternatives

Alternative 1: Do-nothing (Approach set out in Kilkenny City and County Development Plan 2021-2027);

Alternative 2: Consolidated (Developed on basis of approach in the Kilkenny City and County Development Plan 2021-2027 but with enhanced consolidation, land use and connectivity).

Table 3.1: Assessment of Alternatives against SEOs

Alternative	Likely to Improve status of SEOs to a greater degree	Likely to Improve status of SEOs to a lesser degree	Likely neutral effect on SEOs	Potential Conflict with status of SEOs likely to be mitigated	Probable Conflict with status of SEOs unlikely to be mitigated
Alternative 1		P1, P2, P3, A1, A2, A3, A4, C1, C2, C3, M1, M4	C4, H1, M2	B1, B2, B3, B4, W1, W2, W3, W4, S1, S2, L1, L2	M3
Alternative 2	P1, A1, C1, C2, M1, M4	P2, P3, A2, A3, A4, C3	C4, H1, M2	B1, B2, B3, B4, W1, W2, W3, W4, S1, S2, L1, L2	M3

3.3 Selection of the Preferred Alternative for the Masterplan

The selected alternative for the Masterplan is Alternative 2. This alternative facilitates the improvements in various environmental components by accommodating a more connected, integrated and consolidated land use arrangement that addresses environmental sensitivities and meets the opportunities of the Masterplan area.

Alternative 2 also allows for a greater number journeys via sustainable transport modes and would be likely to contribute towards associated positive environmental effects on overall greenhouse gas emissions, energy usage and air and noise emissions.

4 Monitoring Measures and Reporting

4.1 Introduction

The SEA Directive (and Article 17 of the SEA Regulations) requires that the significant environmental effects of the implementation of plans and programmes are monitored. The Loughmacask Masterplan is a stated objective of the Kilkenny City and County Development Plan 2021-2027 and must be prepared in accordance with the requirements of the development plan. The SEA Statement for the adopted development plan provides (at Section 5 & Table 5) for a detailed monitoring programme of the implementation of the plan, which will include the Loughmacask Masterplan. Therefore, separate monitoring of the masterplan is not required.

4.2 Indicators and Targets

Monitoring is based around indicators which allow quantitative measures of trends and progress over time relating to the Strategic Environmental Objectives used in the assessment. Each indicator to be monitored is accompanied by the targets. The monitoring programme may be updated to deal with specific environmental issues - including unforeseen effects - as they arise. Such issues may be identified by the Council or identified to the Council by other agencies.

4.3 Sources

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

4.4 Reporting

The Council is responsible for monitoring and the preparation of monitoring evaluation report(s), the publication of these reports and, if necessary, the carrying out of corrective action. The Chief Executive's Report on the implementation of the Development Plan, including the Loughmacask Masterplan, which must be carried out within two years of the making of the Plan, will include detail on the monitoring of the indicators for the masterplan.

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 objectives of the Masterplan are well-defined with regard to the environment. Conversely where the objectives of the Masterplan have a negative impact on the

environment, it may be necessary to review the objectives of the Masterplan or to take some other form of intervention. For example, if an objective is having a significant adverse impact, an amendment may be considered during the lifetime of the Masterplan.

4.5 Reporting and Remedial Action

Kilkenny County Council is responsible for undertaking monitoring. 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 objectives of the Plan are well-defined with regard to the environment. Conversely where the objectives of the Plan have a negative impact on the environment, it may be necessary to review the objectives of the Plan or to take some other form of intervention or remedial action. For example, if an objective is having a significant adverse impact, a variation to address the issue may be considered during the lifetime of the Masterplan.

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