

Clane

Local Area Plan 2017-2023

Plean Cheantair Áitiúil Claonadh



SEA: ENVIRONMENTAL REPORT



CLANE LOCAL AREA PLAN 2017-2023

Strategic Environmental Assessment Environmental Report



Strategic
Assessment
**Built
Environment**

CLIENT
Kildare County Council

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GLOSSARY

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

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

The primary purpose of monitoring is to identify significant environmental effects which arise during the implementation stage against those predicted during the plan preparation stage.

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

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

1.0 Non-Technical Summary

1.1 Introduction

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

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

The preparation of Clane LAP runs in parallel with the Strategic Environmental Assessment (SEA), Appropriate Assessment (AA) Screening and Strategic Flood Risk Assessment which have influenced the preparation of the Local Area Plan.



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





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

1.2 Steps in the SEA Process

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

Table 1.1: Key Stages in SEA process

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

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

1.3 Content of Environmental Report

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

1. Biodiversity and Flora & Fauna
2. Population
3. Human Health
4. Soil and Geology
5. Water
6. Air Quality and Climate Change
7. Material Assets

8. Architectural, Archaeological and Cultural Heritage
9. Landscape
10. Interaction of the foregoing

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

Table 1.2: Content of Environmental Report

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

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

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

1.5 Screening for Appropriate Assessment

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

1.6 Clane LAP Baseline Environment

The Clane LAP has been subject to separate screening assessment for AA and determined that there is no requirement to proceed to Stage 2 AA as no significant detrimental effects were identified on the integrity of the any European site as the result of implementation of the LAP. The environmental and heritage resources of Clane are described in the LAP as its Green Infrastructure and comprises network of waterways, wetlands, woodlands, wildlife habitats, greenways, parks and conservation lands, forests and other open spaces that adjoin and are threaded through towns and villages. The baseline information outlines the environmental context within which the LAP will be implemented and identifies the following parameters:

- The key environmental baseline resources and sensitivities;
- The key environmental threats and trends; and

The likely evolution of the environment in the absence of the LAP.

1.6.1 Biodiversity & Habitats

Biodiversity plays a significant role in the provision of clean air, water, healthy soils and food as well a visually contributing to a plan area with it natural beauty and heritage.

The environmental and heritage resources of Clane are described in the LAP as its Green Infrastructure and comprises network of waterways, wetlands, woodlands, wildlife habitats, greenways, parks and conservation lands, forests and other open spaces that adjoin and are threaded through towns and villages. Most lands on the periphery of the LAP boundary comprise key Green Infrastructure areas with just one unsubstantial area of scrub and one unsubstantial area of immature woodland. The River Liffey, an important salmonid river, runs along the South East boundary of Clane LAP and also contributes to the character of Clane with the Butterstream flowing south of the town and joining the Liffey near Alexandra Bridge, and the Gollymochy to the north. The River Liffey is identified in the CDP 2017-2023 as an Area of High Amenity, and also as an area with low capacity to accommodate uses without significant adverse effects on the appearance or character of the landscape.

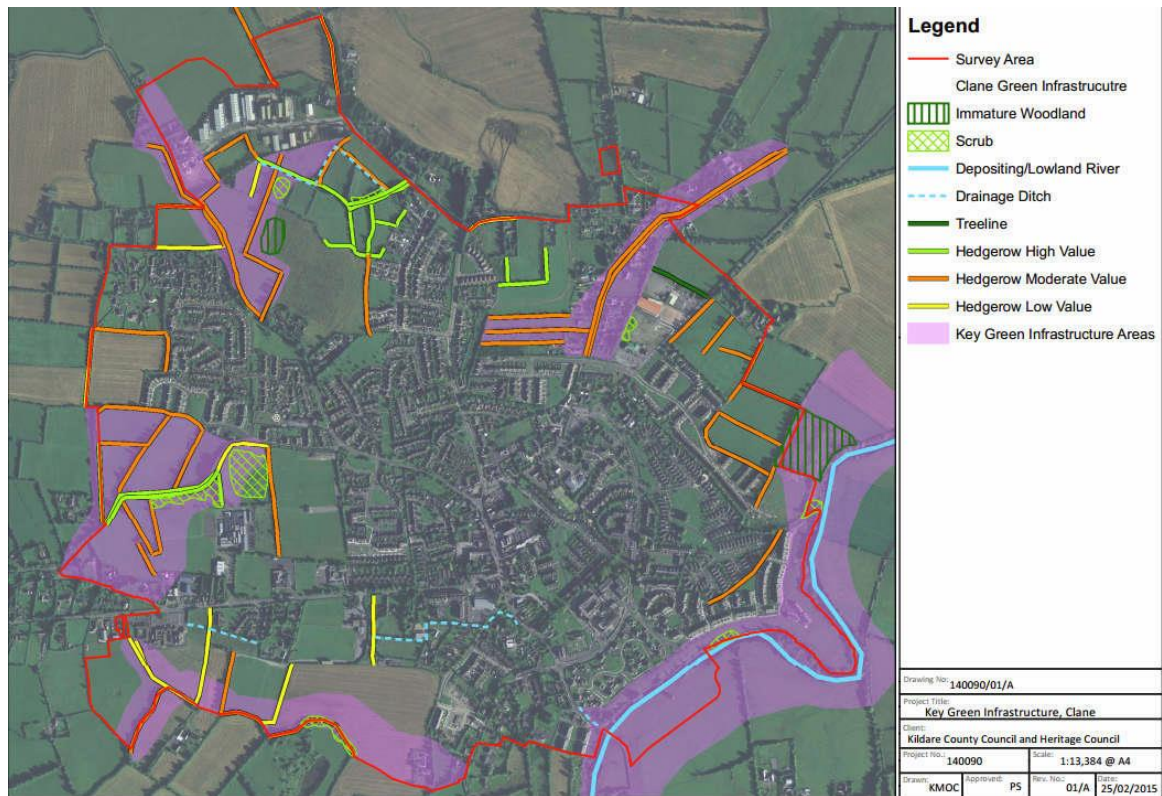


Fig 1.1: Habitat Mapping for Clane

1.6.2 Population and Human Health

Clane recorded a population of 6,702 in the 2011 Census. Preliminary results from Census 2016 recorded a population increase of 5.6% in the County as a whole, and an increase of 5.4% in the Clane Electoral Division.

The Core Strategy of the Kildare County Development Plan 2017-2023 allocates 2.4% of Kildare’s housing growth to Clane over the period 2017-2023. The LAP will need to make provision for 780 housing units over the Plan period to meet the Core Strategy requirement. The Clane Local Area Plan includes a total of 49.1 hectares of undeveloped residentially zoned land. The housing capacity of these lands, which include those with current planning permissions, is estimated to be c. 1,026 residential units. This capacity is adequate to deliver the Core Strategy allocation of 780 housing units over the Local Area Plan period and includes additional capacity for 246 housing units. This supports an adequate supply of housing over the Plan period and provides a level of headroom in the event that some of the identified housing lands do not come forward for development during the Plan period.

1.6.3 Soils and Geology

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

Soils within Clane Town Centre are ‘urban’ in nature due to disturbance resulting from its built environment. To the east of the town, soils comprise ‘River Alluvium’ as a result of the Liffey Valley

which meanders in a south to north direction to the east of the town.¹ West of the town centre, soils comprise 'fine loamy drift with limestones'.

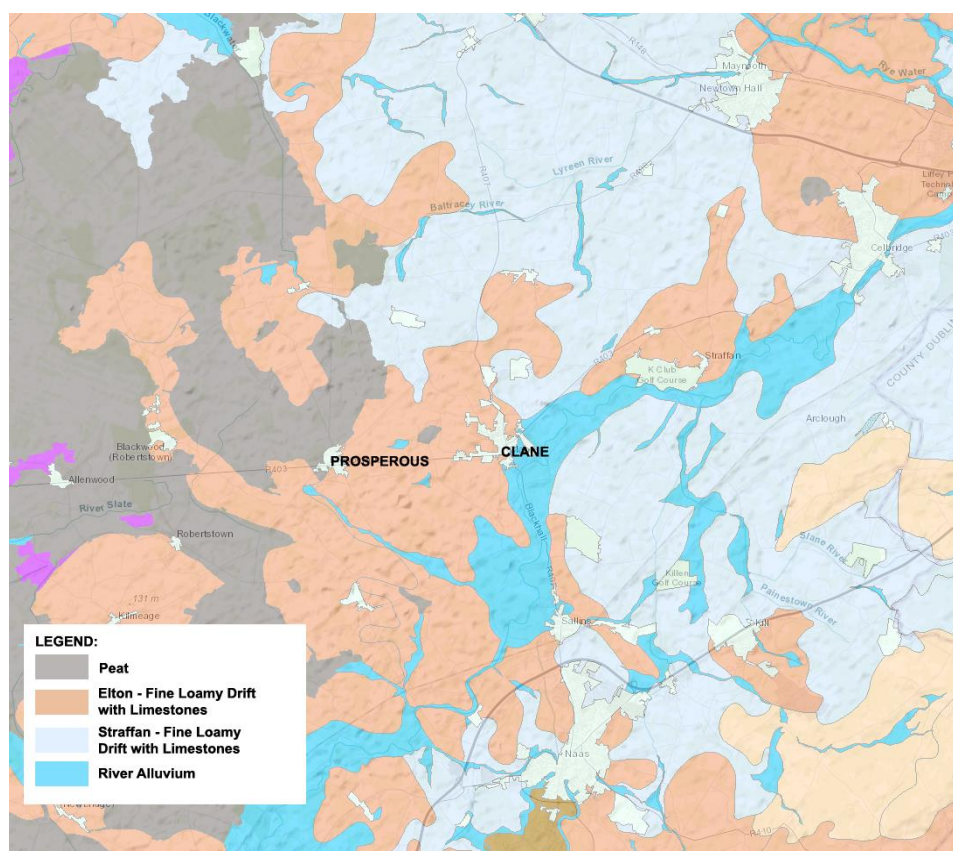


Figure 1.2: Soils Map for Clane LAP

Urban environments have greatly changed in Ireland with the centres of population and towns being subjected to depopulation with growth focused on the periphery of these areas. With urban expansion, agricultural land surrounding towns and settlements as well as green areas within them are subjected to increasing pressures. The type and depth of soil has direct implications on water movement which can lead to increased pollution threats if not properly considered.

1.6.4 Water

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

Clane is located within the Liffey Water Management Unit of the Eastern River Basin District. This Water Management Unit contains the Liffey Lower and Gollymochy waterbodies. The status of surface water here is "Moderate" and the objective is to reach "Good" status. The overall status of groundwater in the area is "Good" and the objective is to "Protect" this status into the future. Kildare County Council and the Environmental Protection Agency carry out water quality monitoring in these waterbodies for the purpose of the Water Framework Directive.

¹ <http://gis.teagasc.ie/soils/map.php>

1.6.5 Flooding

Clane has a history of flooding at various locations throughout the town, arising from the fluvial sources of the Cott/Butterstream, Gollymochy and Liffey rivers and from groundwater and artificial drainage systems. Works have been carried out to alleviate flooding in the recent past including those at the Butterstream and from Millicent Road junction to Clane Hospital.

In line with The Planning System and Flood Risk Management Guidelines for Planning Authorities (2009), a Strategic Flood Risk Assessment (SFRA) was undertaken as part of the LAP preparation. The LAP avoids development in areas at risk of flooding and has substituted vulnerable land uses with a less vulnerable uses where this is not possible in zoning lands in this Plan. Where neither is possible, mitigation and management of risks must be proposed. Justification tests were carried out on a number of sites in this regard and are outlined in the SFRA report accompanying this Plan.

The SFRA for the LAP has recommended that development proposals for a number of areas within the plan boundary should be the subject of site-specific flood risk assessment appropriate to the nature and scale of the development being proposed. The SFRA also contains Flood Zone Mapping for the plan area which highlights those parts of the area that are at a higher risk of flooding.

1.6.6 Air & Climate

The Environmental Protection Agency is involved in air quality monitoring and has installed a number of air quality monitoring stations throughout Ireland. The EPA Report *Air Quality in Ireland 2015* provides an overview of the air quality in the country for 2015 based on data obtained from the 31 monitoring stations. There is no detailed information available for the plan area with the closest monitoring station, for Co. Kildare, being located in Naas where the current Air Quality is 'Good'. The County of Kildare is primarily rated located within Zone D (primarily smaller settlements and rural areas outside of cities and major centres).

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

1.6.7 Material Assets

Material assets can be defined as the critical infrastructure essential for the functioning of society such as: electricity generation and distribution; water supply; wastewater treatment; and transportation.

Transportation

Transportation is an essential element to the functioning of the Irish economy and will continue to be promoted as a crucial component to the further sustainable development of the plan area.

The Clane LAP area is located at the intersection of the R403 (Celbridge to Prosperous) and R407 (Kilcock to Naas) Regional Roads and has a Liffey crossing on the southern edge of the town at Alexandra Bridge. Given its strategic position between the M4 and M7 and its proximity to

significant employment centres in County Kildare and the Greater Dublin Area, the town experiences a high volume of through traffic. Traffic volumes approaching Clane from the Prosperous, Kilcock, Celbridge and Sallins roads are significant, with much of this traffic travelling through Main Street. The road network in Clane is radial. All routes focus onto the Main Street and there are limited cross connections. This causes significant congestion in the town centre area.

Public transport is limited to bus services with connections to Naas, Newbridge and Dublin. The town is located a reasonably short distance from both Maynooth (13km) and Sallins (6km) train stations, providing good access to the Kildare and Maynooth commuter rail services and intercity services to the south and west.

The LAP supports the development of a good quality walking and cycling network that is legible and provides safe and attractive connections for pedestrians and cyclists, particularly along key desire lines. The Greater Dublin Area (GDA) Cycle Network Plan identifies a network of intra-urban and urban cycle routes across the GDA. The network identified for Clane is set within the wider inter-urban network. Inter-Urban Route K3 extends from Celbridge to Clane and includes spurs to Maynooth and Straffan; and Inter-Urban Route K7 extends from Clane to the Grand Canal at Landenstown where it connects to a Greenway.

Water Supply

Clane is served by the North-East Kildare Regional Water Supply Scheme, with water supplied from the water treatment plant at Ballymore Eustace. Irish Water considers that the North-East Kildare Regional Water Supply Scheme has sufficient capacity to provide for the growth of Clane. However, there are some deficiencies within the network which will require to be addressed in conjunction with development.

Wastewater

Clane is served by the Upper Liffey Valley Regional Sewerage Scheme (ULVRSS), which ultimately connects to the wastewater treatment plant at Osberstown and discharges to the River Liffey. The Osberstown WWTP is currently operating to a capacity of 80,000 population equivalent (PE), with an upgrade to 150,000 PE due to be completed by Q4 2016 and planned capacity of 350,000 PE by 2048.

1.6.8 Cultural Heritage

The Kildare County Development Plan identifies a number of protected structures in Clane. One of the core aims of this LAP is to conserve and enhance these unique aspects of the town. There are many buildings of character and historical significance in Clane and many of the streetscapes including the buildings along Main Street offer group value. The most notable buildings within the plan area are the Church of St. Patrick and St. Brigid, the former convent and school house buildings and Clane Abbey and Graveyard. The Alexandra Bridge is also of significance and presents a valuable historic feature on the approach to the town in addition to its importance as a strategic route into the town.

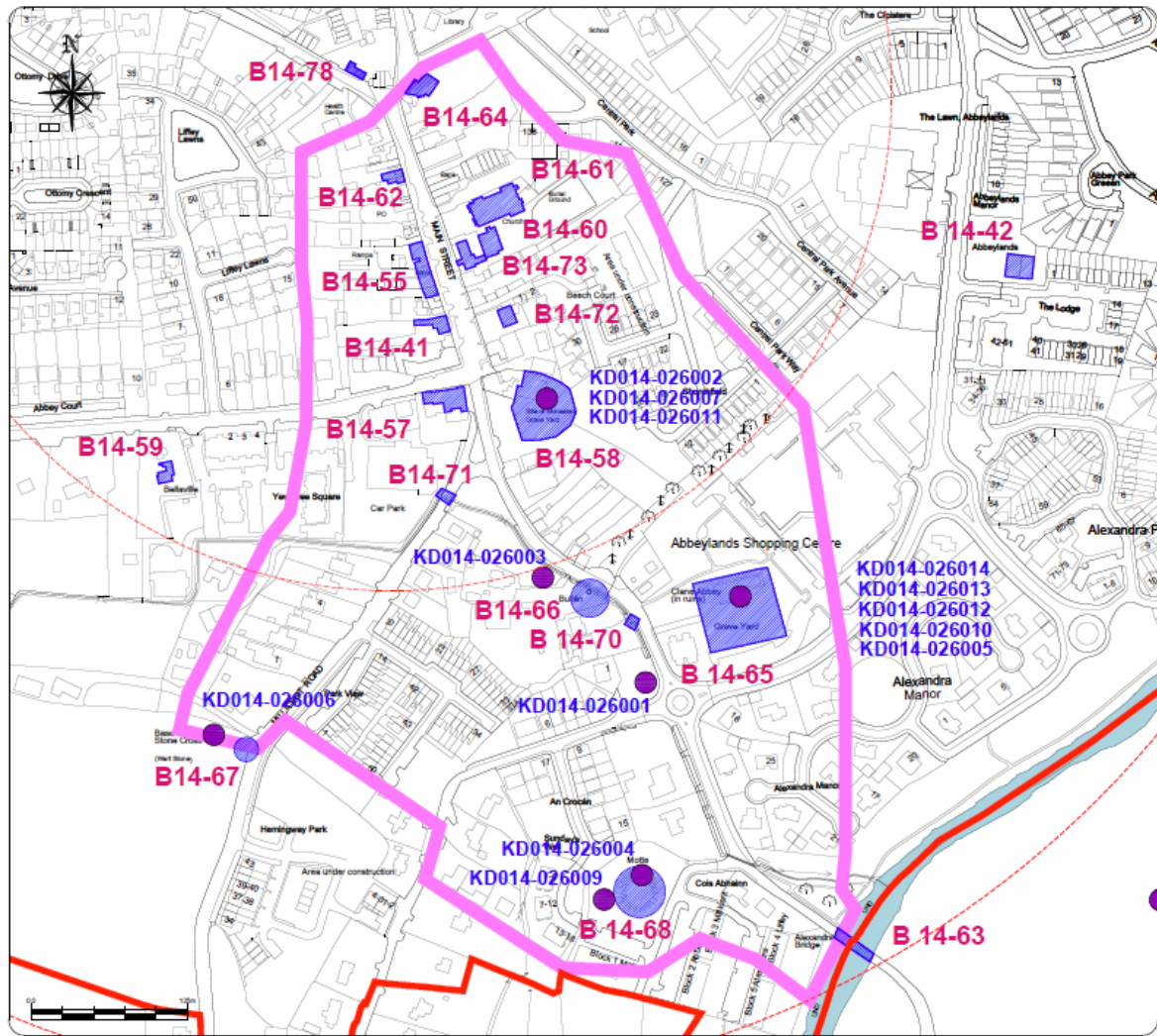


Figure 1.3: Zone of Archaeological Potential

Developments located within the Zone of Archaeological Potential and/or within close proximity to Recorded Monuments may be required as part of the planning application process, or by condition of permission, to carry out archaeological assessment, monitoring, testing or excavation within the area, either prior to the planning decision or prior to any development works proceeding on the site. The Council, as a condition on such developments, may consider the preservation of all or part of the archaeological remains in the area covered by the permission.

1.6.9 Landscape

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

Clane's natural heritage is a unique and special resource. As well as the River Liffey, there are a number of hedgerows, trees and watercourses within the plan area that help sustain habitats and biodiversity. It is critical to retain existing key landscapes and open spaces which help provide a sense of identity and place to Clane.

The LAP area is located within the large Landscape Character Area (LCA) of the 'Northern Lowlands', which typifies the landscape of much of the northeast of the county. The County

Development Plan identifies that the ‘Northern Lowlands- Naas and Environs’ is of low sensitivity and are robust landscapes which are tolerant to change, and which have the ability to accommodate development pressure

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

1.7 Strategic Environmental Objectives, Targets and Indicators

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

Table 1.3: Strategic Environmental Objectives (SEOs)

Environmental Component	Strategic Environmental Objectives
BIODIVERSITY, FLORA & FAUNA	B1: Conserve and where possible enhance the diversity of habitats and protected species avoiding irreversible losses
	B2: Promote measures to protect biodiversity by creating and improving habitats, where possible
	B3: Provide opportunities for sustainable public access to wildlife and wild places at appropriate locations
	B4: Avoid damage by development to designated wildlife sites and protected species, and associated ecological corridors/ linkages
POPULATION	P1: To provide for appropriate community facilities, amenities and infrastructure to support new and existing developments within and surrounding the village centre
SOILS & GEOLOGY	S1: To maintain the quality of soil
	S2: To maximise the sustainable re-use of brownfield lands where possible
WATER	W1: Protect and enhance the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems
	W2: Promote sustainable water use based on a long-term protection of available water resources
	W3: Prevent pollution and contamination of ground water by adhering to aquifer protection plans.
	W5: Reduce risk of flooding through avoidance of development in Flood Zones A or B.
AIR CLIMATE & NOISE	A1: Facilitate measures to reduce all forms of Air Pollution
	A2: Minimise emissions of greenhouse gases to contribute to a reduction and avoidance of human-induced global climate change
	A3: Protect human health through minimising the risk of noise and vibrations from traffic, industrial processes and extractive industry.

MATERIAL ASSESTS	M1: To protect the environment from the adverse effects of the wastewater discharges by ensuring that wastewater is appropriately treated before it is discharged to the environment
	M2: To ensure that drinking water supplies are free of contamination.
CULTURAL HERITAGE	C1: Protect and conserve the cultural heritage including the built environment and settings; archaeological (recorded and unrecorded monuments), architectural (Protected Structures, Architectural Conservation Areas, vernacular buildings, materials and urban fabric) and manmade landscape features.
LANDSCAPE	L1: Conserve and enhance valued natural and historic landscapes and their character and features within them

1.8 Alternative Plan Scenarios

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

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

- Alternative 1: To consolidate the town centre and identify key development areas to accommodate proposed population growth, in conjunction with infrastructure provision and a longer term amenity focus on the River Liffey.
- Alternative 2: To develop lands to the south of the River Liffey (east of the R407) Clane for residential purposes.
- Alternative 3: Lands to the south of the Prosperous Road and immediately south of the hospital.
- Alternative 4: Development of the lands to the west of the LAP boundary at Butterstream
- Alternative 5: Development of lands on the Ballinagappa Road
- Alternative 6: Lands to the North of the LAP boundary (north of Clane Bus Park)
- Alternative 7: To carry forward the development strategy from the previous LAP

Following consideration and assessment of the seven alternatives put forward, it was concluded that Alternative 1, which provides for the consolidation of the town centre through the identification of key development areas to accommodate the proposed population growth, in conjunction with the provision of infrastructure and a longer term amenity focus on the River Liffey was the most appropriate and environmentally protective to the future development of Clane.

This approach would meet a large number of objectives of the LAP as it supports the consolidation of the town centre by encouraging the development of vacant and underutilised sites whilst including infrastructural improvements. The provision of a town park would improve the amenity of the town whilst protecting the biodiversity and natural heritage along the River Liffey and the environs of the town. Alternative 1 would support the intensification of the town centre of Clane and reinforce its urban core.

1.9 Evaluation of Clane LAP (Policies and Objectives)

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

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

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

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

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

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

1.10 Mitigation Measures

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

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

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

1.11 Local Area Plan Monitoring

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

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

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

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

1.12 Sources

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

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

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

2.0 Introduction & Background

2.1 Introduction to Environmental Report

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

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

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

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

2.2 Strategic Environmental Assessment

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

2.2.1 SEA Legislative and Guideline Context

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

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

The SEA Directive was subsequently transposed into Irish law through:

- **S.I. No. 435 of 2004** (*European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004*, as amended by **S.I. No. 200 of 2011** (*European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011*), and
- **S.I. No. 436 of 2004** (*Planning and Development (Strategic Environmental Assessment) Regulations 2004*, as amended by **S.I. No. 201 of 2011** (*Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011*) and **S.I. 262 of 2011** (*Planning and Development (Amendment) Regulations 2011*).

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

Environmental Protection Agency

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

Department of Environment, Community and Local Government

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

Department of Environment, Heritage and Local Government

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

European Commission

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

2.3 Clane Local Area Plan 2017-2023

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

Kildare County Council has prepared the Clane LAP 2017-2023 to replace the existing Clane 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 Clane.

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

'To promote the sustainable growth of Clane, building on its established character and supporting its role as a small town and a local services centre. In this context, the plan will provide for growth to cater for local need; will support economic development and job creation based on local strengths; will promote sustainable movement and identify opportunities to enhance connectivity within the built environment; will identify opportunities for the delivery of supporting infrastructure, facilities and amenities to support the growing community and will seek to protect and enhance built and natural heritage and the environment.'

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

- To accommodate 2.4% of Kildare's allocated housing growth in Clane over the period 2017- 2023 in accordance with the County Development Plan Core Strategy.
- To protect and enhance the primacy and character of the Town Centre, so that it remains attractive to businesses and meets the retailing and service needs of the area, in addition to offering a pleasant and attractive environment for shopping, business, recreation and living.
- To support and facilitate the development of high-quality, integrated residential neighbourhoods that cater for all demographics and deliver community, recreation and amenity facilities in tandem with housing.
- To set a positive and flexible framework for economic development and employment generation to meet local needs, optimising on the town's strategic location in Kildare. In addition to supporting the established local services function and existing employment sites, complementary economic activities that are based on local strengths and assets will be encouraged.
- To enhance the exiting transport network by increasing permeability and connectivity for pedestrians, cyclists and vehicles, in order to enable access to key land uses such as community facilities, public transport nodes and zoned lands.
- To phase future growth in line with the capacity and delivery of supporting physical infrastructure.
- To positively enhance the town's built and natural heritage by protecting existing heritage assets and their settings, by promoting the enhancement, management and understanding of these assets and by providing for appropriate development.
- To protect, enhance and develop a multifunctional Green Infrastructure network by building an interconnected network of parks, open spaces, hedgerows, grasslands and watercourses.
- To ensure that best practice urban design principles are applied to all new development, based on the principle that well planned and integrated development enhances the sustainability, attractiveness and quality of an area.
- To phase new development to ensure that it occurs in an orderly and efficient manner in

accordance with proper planning and sustainable development.

Figure 2.1 below shows the LAP Boundary for Clane.

Figure 2.1: Clane LAP Boundary Area



2.4 Relationships with other relevant Plans and Programmes

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

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

2.5 Implications for the Clane LAP

Article 9 of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004, as amended, sets out criteria for determining whether SEA should be undertaken on certain types of plans. Considering these criteria, Kildare County Council concluded that an SEA was required for the LAP, as it is within the mandatory requirement for SEA

where the population for the preparation of a local area plan for an area has a target population of 5,000 persons or greater.

The findings of the SEA are set out in this Environmental Report, which accompanied the proposed Draft LAP on public display. These findings were altered in order to take account of recommendations contained in submissions and to take account of any changes which were made to the Draft LAP on foot of submissions. Kildare County Council also took into account the findings of this Environmental Report during their consideration of the Draft LAP and before it is finalised. On finalisation of the LAP, an SEA Statement was prepared which summarises, inter alia, how environmental considerations have been integrated into the document.

3.0 Methodology

3.1 Introduction

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

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

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

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

Table 3.1 – Stages in the SEA Process

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

STAGE	DESCRIPTION
	<ul style="list-style-type: none"> • Office of the Minister for Agriculture, Food and the Marine, Dublin 2 • Department of Arts, Heritage and the Gaeltacht • South Dublin County Council • Meath County Council <p>Submissions received from Environmental Authorities were reviewed and incorporated into the SEA process as appropriate.</p>
<p>Preparation of Draft Clane LAP & SEA Environmental Report</p>	<p>A multi-disciplinary team has been established to create policy consistent documents and to examine the effects on the environment of implementing the objectives and policies.</p> <p>Objectives created in the Draft LAP have been assessed in the Environmental Report and proposed measures for the area examined.</p> <p>Feedback has been received throughout the LAP preparation process & Environmental Report preparation</p> <p>Mitigation measures have been discussed and selected.</p> <p>Monitoring of implementation of LAP</p>
<p>Consultation</p>	<p>Consultation on the Draft Clane LAP and accompanying Environmental Report, Appropriate Assessment and Strategic Flood Risk Assessment.</p>
<p>Evaluation of submissions</p>	<p>Evaluation of submissions and observations made on the Draft LAP, Environmental Report, Strategic Flood Risk Assessment and Appropriate Assessment Screening.</p>
<p>Finalisation of the Clane LAP, Environmental Report & SEA Statement</p>	<p>Finalisation of the LAP and SEA Environmental Report. SEA Statement prepared identifying how environmental considerations and consultations have been integrated into the final LAP.</p>
<p>Monitoring</p>	<p>Monitoring of significant environmental effects over the lifetime of the Clane LAP 2017-2023</p>

3.2 SEA Screening

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

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

3.3 Scoping

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

- the Environmental Protection Agency
- the Minister of the Environment, Community and Local Government
- the Minister of Communications, Energy and Natural Resources
- the Minister of Agriculture, Food and the Marine
- the Minister of Arts, Heritage and the Gaeltacht; and
- Any adjoining planning authority whose area is contiguous to the area of a planning authority which prepared a draft plan, – in this case counties includes South Dublin, Fingal, Meath, Offaly, Laois, Carlow and Wicklow.

3.3.1 Scoping Responses

Submissions were received from the following statutory consultees:

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

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

Table 3.2 – Summary of Scoping Submissions

CONSULTEE AND COMMENTS	RESPONSE
Environmental Protection Agency	
<ul style="list-style-type: none"> • Acknowledged receipt of the Scoping Report for the Draft Clane LAP. • Provided an SEA Integration guidance document setting out the key environmental issues to be taken into account in the preparation of the SEA and Draft Plan. 	Comments and suggestions were considered in the preparation of the Environmental Report
Department of Communications, Energy and Natural Resources	
<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 Communications, Energy & Natural Resources. 	Noted
Office of the Minister for Agriculture, Food and Marine, D2.	
<ul style="list-style-type: none"> • Acknowledged receipt of Scoping Report and confirmed that the proposed LAP would be brought to the attention of the Minister for Agriculture, Food and Marine. 	Noted

CONSULTEE AND COMMENTS	RESPONSE
South Dublin County Council	
<ul style="list-style-type: none"> Acknowledged receipt of Scoping Report and referred the matter to their Director of Land Use, Planning & Transportation. 	Noted
Department of Arts, Heritage and the Gaeltacht	
<ul style="list-style-type: none"> Acknowledged receipt of the Scoping letter and made the following recommendations Protect the historic core of the town, particularly the protected monuments and historic significance. Consider the conservation of archaeology in Clane in the context of the broader context of the European Convention on the Protections of the Archaeological Heritage. Refer to the Framework and Principles for the Protection of the Archaeological Heritage (1999), The National Heritage Plan and the County Kildare Heritage Plan to provide a clear and coherent strategy and framework for archaeological heritage. 	Comments and suggestions have been considered in the preparation of the Environmental Report

3.4 Environmental Report

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

In the SEA Environmental Report, which was placed on public display alongside the Draft Clane LAP, the likely environmental effects of the Draft LAP and the alternatives were predicted and their significance evaluated with regard to the Environmental baseline. The Environmental Report provided stakeholders and the public with a clear understanding of the likely environmental consequences of implementing the LAP.

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

The Environmental Report was updated in order to take account of recommendations contained in submissions and to take account of changes made to the original Draft LAP placed on public display. No significant difficulties have been encountered during the undertaking of the assessment.

Table 3.3: SEA Report Structure

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

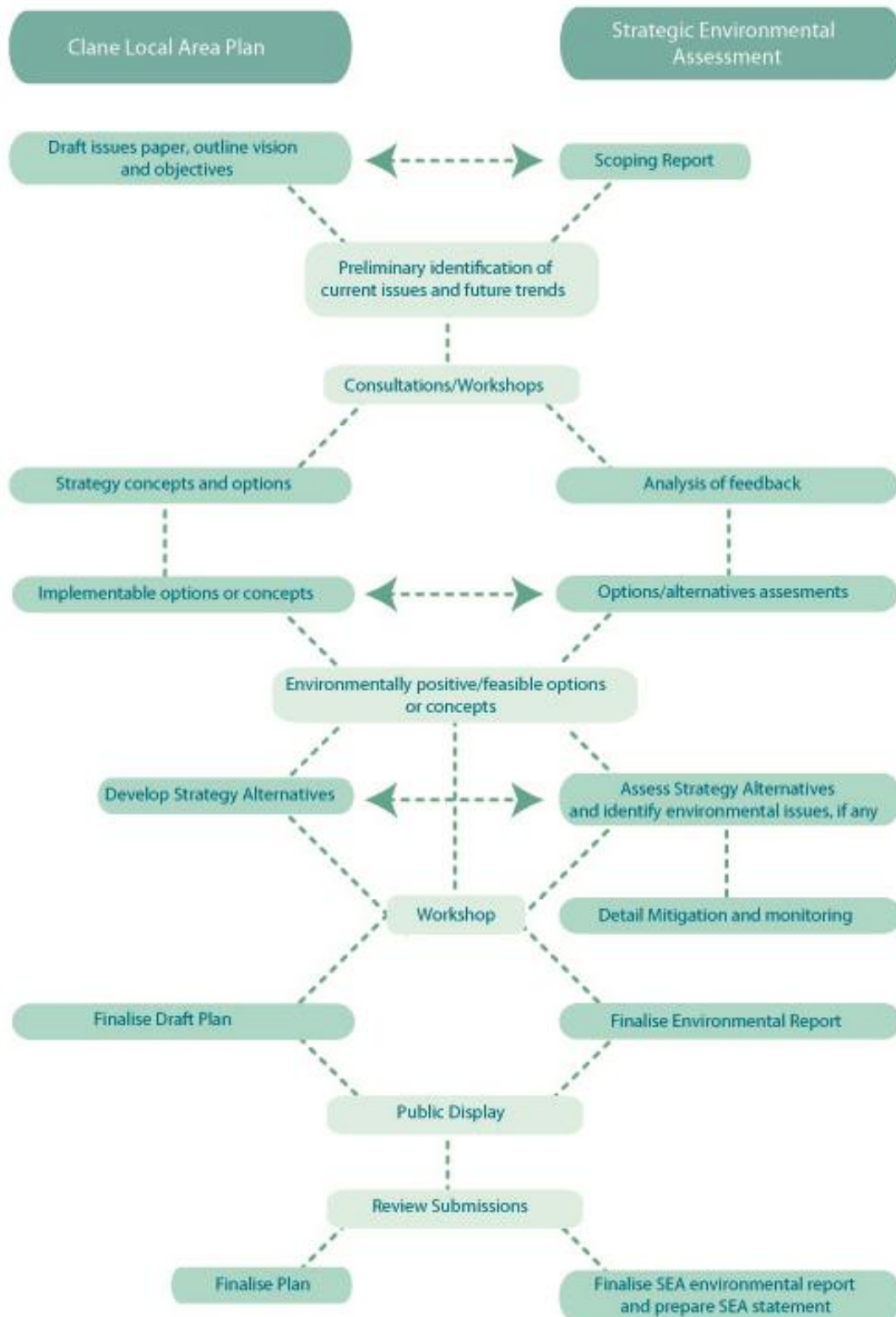


Figure 3.1 Outline of Clane Local Area Plan and integration with SEA Process

3.5 SEA Statement

Upon finalisation of the Clane LAP, a SEA Statement was prepared which includes information on:

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

3.6 Appropriate Assessment (AA)

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

An Appropriate Assessment (AA) Screening has also been 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 is a separate but parallel process that has influenced the SEA process in the drafting of the Local Area Plan. The Appropriate Assessment Screening specifically assesses the potential impact on Natura 2000 sites (and their conservation objectives) arising from the implementation of the plan based on the Screening Report and other supplementary information with the ultimate aim to avoid significant adverse impacts on these sites. The Screening Report determined that there is no requirement to proceed to Stage 2 of the AA as there is no significant detrimental effect identified as the result of implementation of the plan to the integrity of any European Site. The Appropriate Assessment Screening shall be published parallel to the LAP and Environmental Report.

3.7 Strategic Flood Risk Assessment (SFRA)

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

4.0 Review of Relevant Policies, Plans and Programmes

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

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

4.1 European and National Legislation & Policy

4.1.1 *National Spatial Strategy 2002-2020*

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

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

It should be noted that in Feb 2013 the Department announced the Government's intention to abandon the National Spatial Strategy and replace it with a revised strategy.

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

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

- (1) Ensure that the needs of rural communities are identified in the development plan process and that policies are put in place to ensure that the type and scale of residential and other development in rural areas, at appropriate locations, necessary to sustain rural communities is accommodated.

- (2) Manage pressure for overspill development from urban areas in the rural areas closest to the main cities and towns such as the gateways, hubs, and other large towns.
- (3) Take account of other related dimensions in relation to rural settlement such as environmental and heritage protection and the need to maintain the integrity of economic resources

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

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

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

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

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

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

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

The primary aim of these guidelines is to promote sustainable urban housing, by ensuring that the design and layout of new apartments will provide satisfactory accommodation for a variety of household types and sizes – including families with children - over the medium to long term.

These guidelines provide recommended minimum standards for:

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

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

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

Key goals of this policy are:

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

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

- Actions to reduce distance travelled by private car and encourage smarter travel.
- Actions aimed at ensuring that alternatives to the car are more widely available.
- Actions aimed at strengthening institutional arrangements to deliver the targets.
- Actions aimed at improving the fuel efficiency of motorised transport.

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

The Water Framework Directive (WFD) (2000/60/EC) seeks to improve or maintain the ecological and physico-chemical quality of all waterbodies – rivers, lochs, groundwater, transitional waters (estuaries) and coastal waters. When fully operational, the WFD will achieve the level of protection afforded by a number of existing directives, including the Shellfish Waters Directive (and Freshwater Fish Directive), which is scheduled to be repealed in 2013. These objectives will be achieved through the operation of River Basin Management Plans (RBMPs), which incorporate the improvement actions specified within the Shellfish Water PRPs. Its ultimate objective is to achieve “good ecological and chemical status” for all Community waters by 2015 and beyond.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

4.1.14 European Communities (Birds and Natural Habitats) Regulations 2011

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

Articles 6(1) and (2) of the Regulations require Member States to take appropriate conservation measures to maintain and restore habitats and species, for which a site has been designated, to a favourable conservation status. Furthermore the Regulations require Member States to avoid damaging activities that could significantly disturb these species or deteriorate the habitats of the protected species or habitat types. Under these

regulations any plan or project likely to have a significant effect on a Natura 2000 site, either individually or in combination with other plans or projects, shall undergo an Appropriate Assessment to determine its implications for the site.

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

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

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

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

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

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

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

4.1.17 European Landscape Convention 2000

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

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

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

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

In relation to planning the guidelines require planning authorities to:

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

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

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

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

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

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

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

4.1.21 *Wildlife (Amendment) Act 2000*

The Wildlife Act is Ireland's primary national legislation for the protection of wildlife. It covers a broad range of issues, from the designation of nature reserves, the protection of species, regulation of hunting and controls in wildlife trading. It is implemented by a series

of regulations. The Act provides strict protection for nearly all birds, 22 other animal species, and 86 plant species. These species are protected from injury, or from disturbance / damage to their breeding or resting place wherever these occur. The 2000 Act was amended in 2010.

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

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

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

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

Part IV of the Planning and Development Act 2000 (as amended) sets out the legislative provisions for the protection and conservation of our architectural heritage. The main features of the act in this respect are:

- Local authorities must create and maintain a Record of Protected Structures (RPS) which is to include all structures within the administrative area which are of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest. The RPS must form part of the Development Plan for each county.
- Local authorities must also protect the character of places and townscapes which are comply with the special interests listed above. This is done through the designation of Architectural Conservation Areas (ACAs) which are also to be contained within Development Plans.

- Development plans must include objectives for the protection of such structures and the preservation of the character of such areas to ensure proper and sustainable planning and development.
- Owners and occupiers of protected structures can be held responsible in ensuring that buildings are not endangered either directly or through neglect.

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

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

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

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

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

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

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

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

4.2 **Regional and Local Plans and Policies**

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

The Regional Planning Guidelines for the Greater Dublin Area 2010-2022 give effect, at a Regional level, to the national planning framework put forward in the National Spatial Strategy (NSS) and National Development Plan (NDP). They provide a Regional framework for the formulation of policies and strategy in the County Development Plan and seek to ensure the proper balance between the different settlements in the region with regard to development, population and services. The Guidelines present an updated Regional

settlement strategy. They also set out 'Population Targets' for the region and for each County, including County Kildare, which have been formulated having regard to the January 2009 'population targets' issued by the Department of Environment, Heritage and Local Government (DoEHLG) and supplementary guidance of August and October 2009.

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

4.1.2 *Greater Dublin Area Transport Strategy 2016-2035*

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

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

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

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

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

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

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

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

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

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

4.1.5 *Kildare County Development Plan 2017-2023*

The Kildare County Development Plan 2017-2023 sets out an overall vision, with strategies, policies and objectives for the county as a whole until 2023. This Plan sets out a strategy for the proper planning and sustainable development of County Kildare and has been prepared having regard to those matters that must be included in a County Development Plan (i.e. mandatory objectives) as well as those matters that may be included (discretionary objectives) as required by the Planning and Development Act 2000 (as amended).

Clane remains designated a small town in the Kildare CDP 2017-2023. Clane's role as a small town is to develop as a local centre for services with level of growth to cater for local need at an appropriate scale and to support enterprises. Growth should be controlled to limit pressures on services, the environment and unsustainable commuting patterns.

4.1.6 *Kildare Biodiversity Plan (2009-2014)*

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

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

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

4.1.7 *Clane Habitats and Green Infrastructure Mapping 2014*

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

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

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

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

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

The Local Government Reform Act 2014, provided for the establishment of Local Community Development Committees (LCDC) to replace the County Development Board. The LCDC is currently preparing a six year Economic and Community Plan. This plan will agree the strategic framework for economic and community development for the County and is expected to come into effect in 2015, superceding "Kildare 2012- An Economic, Social and Cultural Strategy".

4.1.9 Kildare Local Authorities Housing Strategy 2011-2017

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

5 Baseline Environment of Clane LAP

5.1 Introduction

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

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

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

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

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

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

5.2 Biodiversity and Flora & Fauna

5.2.1 Designated Habitats

Biodiversity plays a significant role in the provision of clean air, water, healthy soils and food as well as visually contributing to a plan area with its natural beauty and heritage.

Ecologically important areas adjacent to Clane town such as Ballynafagh Bog and Ballynafagh Lake SAC have been given an established legal basis for their protection under the European Council Directive on the conservation of natural Habitats and of wild fauna and flora (92/43/EEC), also known as the Habitats Directive. This seeks to establish Natura 2000, a network of protected areas throughout the EU.

The integrity of a Natura 2000 site is determined based on the conservation status of qualifying features of a Special Area of Conservation and can be obtained through a review of the Conservation Objectives available from the NPWS. Natural Heritage Areas also given a legal basis and are designated to conserve and protect nationally important landforms, geological or geomorphological features.

A full list of the SAC, SPA, NHA and pNHA sites that are deemed to be within the zone of influence (c. 15km) of the plan area is provided in Table 5.1 below. The majority of these designated sites are within a 10-15km distance from Clane. Planning Authorities are obliged by law to ensure that these sites are protected and conserved. The proximity and scale of these protected sites can be seen in Table 5.1 to 5.3 below.

Special Areas of Conservation (SAC)	Site Code
<i>European Habitats Directive (92/43/EEC)</i>	
Ballynafagh Lake	001387
Ballynafagh Bog	000391
Mouds Bog	002331
Pollardstown Fen	000396
Red Bog Kildare	000397

Table 5.1: Special Areas of Conservation (SAC) within 15km

Special Protection Areas (SPA)	Site Code
<i>EU (Birds) Directive (97/409/EEC)</i>	
Poulaphouca Reservoir	004063

Table 5.2: Special Protected Areas (SPA) within 15km

Natural Heritage Areas (NHA) & proposed Natural Heritage Areas (pNHA)	Site Code
Donadea Wood	001391
Ballynafagh Lake	001387
Ballynafagh Bog	000391
Hodgestown Bog NHA	001393
Grand Canal	002104
Pollardstown Fen	000396
Mouds Bog	002331
Liffey at Oberstown	001395
Curragh	000392
Poulaphouca Reservoir	000731
Liffey Valley Meander Belt	000393
Red Bog Kildare	000397
Kilteel Wood	001394
Slade of Saggart & Crooksling Glen	000211

Table 5.3: Natural Heritage Areas and Proposed Natural Heritage Areas

In preparing an LAP for Clane, Kildare County Council is also required to consider the need for an Appropriate Assessment (AA) on the likely impacts of the Plan's implementation on Natura 2000 sites. Appropriate Assessment is a practical appraisal of the possible impacts of the implemented Plan on the integrity of identified Natura 2000 sites within the zone of influence of the Plan. Articles 6(3) and (4) of the Habitats Directive sets out the decision-making tests that will be applied to plans or projects that may impact on a Natura 2000 site. Having carried out an AA Screening Report, it was determined that there was no requirement to proceed to Stage 2 AA as no significant detrimental effects were identified on the integrity of the any European site as the result of implementation of the Draft LAP. Details on the Appropriate Assessment Screening shall be published parallel to the Local Area Plan and Environmental Report.

5.2.2 Other Habitats

The environmental and heritage resources of Clane are described in the LAP as its Green Infrastructure and comprises network of waterways, wetlands, woodlands, wildlife habitats, greenways, parks and conservation lands, forests and other open spaces that adjoin and are threaded through towns and villages. Most lands on the periphery of the LAP boundary comprise Key Green Infrastructure areas with just one unsubstantial area of scrub and one unsubstantial area of immature woodland. The River Liffey, an important salmonid river, runs along the South East boundary of Clane LAP and also contributes to the Character of Clane with the Butterstream flowing south of the town and joining the Liffey near Alexandra Bridge, and the Gollymochy to the north. The River Liffey is identified in the CDP 2017-2023 as an Area of High Amenity, and also as an area with low capacity to accommodate uses without significant adverse effects on the appearance or character of the landscape.

5.2.3 Existing Biodiversity Issues

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

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

There are five main pressures causing biodiversity loss:

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

The primary mechanism for conserving, protecting and enhancing biodiversity in Ireland is through the Actions for Biodiversity 2011-2016, Ireland's Second National Biodiversity Plan², of which a key concept is that local authorities (and other agencies) share responsibility for the conservation and sustainable use of biodiversity.

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

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

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

² Actions for Biodiversity 2011-2016, Ireland's Second National Biodiversity Plan

The AA Screening Report prepared separately identifies of the types of threats to the integrity of the European sites. These can then be related to the consequences of implementing the Local Area Plan to see if there is any risk of likely significant effects.

5.3 Population & Human Health

5.3.1 Introduction

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

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

5.3.2 Population Trends

Clane recorded a population of 6,702 in the 2011 Census. Preliminary results from Census 2016 recorded a population increase of 5.6% in the County as a whole, and an increase of 5.4% in the Clane Electoral Division. Table 5.4 below shows the overall population growth in Clane since the 1980's which exhibits a consistent and sometimes substantial increase in population growth which was particularly evident in the 1996 2002 and 2011 census results. This dense pattern of growth can be associated in part to the Clanes proximity to the M7 and M9 motorway.

Census	Population	% Growth
1981	1,718	-
1986	1,767	2.85
1991	1,822	3.11
1996	3,058	67.84
2002	4,417	44.44
2006	4,968	12.47
2011	6,702	34.90
2016 ³	7,064	5.4

Table 5.4 Actual Percentage and Population Growth.

5.3.3 Household Trends

The national trend is one of falling household size from an average of 3.14 persons per household in 1996 to 2.7 in 2011 (Census 2011). The total housing target for Clane in 2023 is 3,483 which requires for the provision of a further 780 housing units to the period of 2023. The Clane LAP has zoned 49.1

³ Estimate based on County growth figure of 5.4%

hectares of undeveloped residentially zoned lands to deliver these units and allow for additional capacity for 246 housing units.

5.3.4 Settlement Strategy

The Core Strategy of the Kildare County Development Plan 2017-2023 allocates 2.4% of Kildare's housing growth to Clane over the period 2017-2023. The LAP will need to make provision for 780 housing units over the Plan period to meet the Core Strategy requirement. The Clane Local Area Plan includes a total of 49.1 hectares of undeveloped residentially zoned land. The housing capacity of these lands, which include those with current planning permissions, is estimated to be c. 1,026 residential units. This capacity is adequate to deliver the Core Strategy allocation of 780 housing units over the Local Area Plan period and includes additional capacity for 246 housing units. This supports an adequate supply of housing over the Plan period and provides a level of headroom in the event that some of the identified housing lands do not come forward for development during the Plan period.

The lands zoned under the Clane Local Area Plan 2009 have been revised in so far as is deemed necessary to ensure a sequential approach to zoning, the promotion of development on underutilised lands, the achievement of a compact urban form and the avoidance of flood risk.

5.3.5 Retail

Clane has been re-designated from a Hinterland Area Tier 1 Level 3 Sub County Town Centre to a Tier 2 Level 3 Town Centre as it has not developed the retail potential and Sub County Town Centre role envisaged in the CDP 2011 – 2017.

The town's retail potential is influenced by its proximity to one or more of the higher order centres of Naas, Newbridge, Celbridge and Kildare Town, despite Clane having the eighth largest population in the county. While the population of all the towns increased at a greater rate, and significantly so in the case of Clane (34.9% in 2011), the retail floorspace has failed to keep pace with the needs of their rapidly growing populations. As the Settlement Strategy directs the population growth is projected to continue over the period of this Kildare CDP 2017-2023, there is an increasing need for considerable enhancement of the retail offer of all of these towns.

5.3.6 Radon & Human Health

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

5.4 Soil and Geology

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

Geology encompasses the understanding and study of the solid and liquid matter that constitutes the earth and the processes by which they are formed, moved and changed. Its understanding is necessary

to fully appreciate the geological factors that shape and influence the world and its particular structure.

Soils within Clane Town Centre are 'urban' in nature due to disturbance resulting from its built environment. To the east of the town, soils comprise 'River Alluvium' as a result of the Liffey Valley which meanders in a south to north direction to the east of the town.⁴ West of the town Centre, soils comprise 'fine loamy drift with limestones'.

5.4.1 Soils

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

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

5.4.2 Geology

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

Kildare holds twenty geological sites of interest within its county. There are no listed geological sites or specific rock resources located within the Clane LAP boundary.

5.4.3 Geological Issues

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

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

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

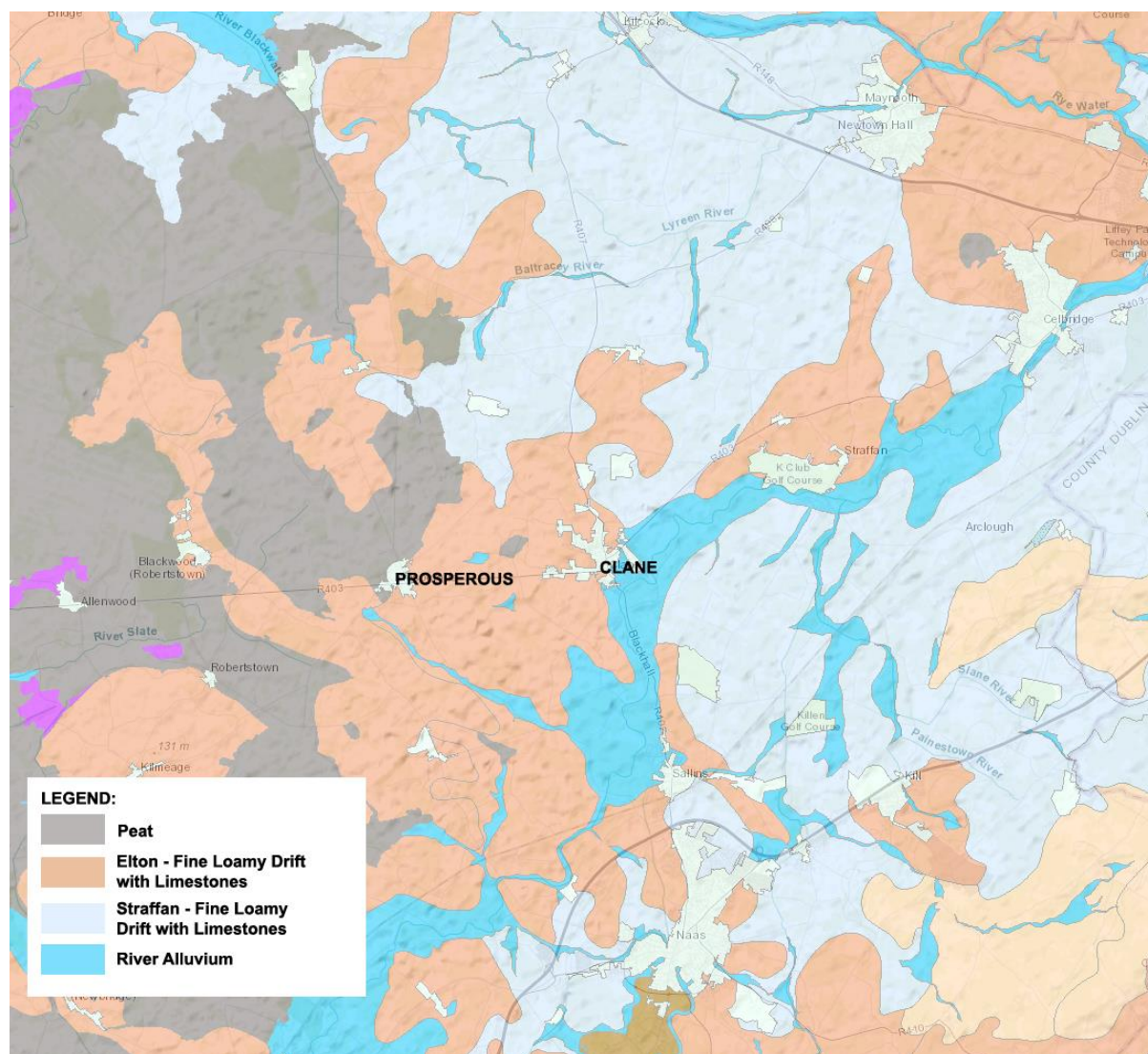
Urban environments have greatly changed in Ireland with the centres of population and towns being subjected to depopulation with growth focused on the periphery of these areas. With urban

⁴ <http://gis.teagasc.ie/soils/map.php>

expansion, agricultural land surrounding towns and settlements as well as green areas within them are subjected to increasing pressures.

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

Figure 5.2: Soils Map for Clane and Environs



5.5 Water

5.5.1 Introduction

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

Water is fundamental to all life; for humans, plants and animals alike. It is also critical in economic terms in generating and sustaining wealth in a number of key areas such as agriculture, fishing, power generation, industry transport and tourism. However it is also a fragile resource requiring continued

protection. In general terms Ireland's waters are of good quality, however preserving the high standard of water is essential for human health and the natural environment.

Since 2000, Water Management in the EU has been directed by the Water Framework Directive (WFD) 2000/60/EC which was transposed into Irish law under the European Communities (Water Policy) Regulations 2003 (S.I. No. 722/2003). This legislation requires governments to take a holistic approach to managing all their water resources based on natural geographic boundaries, i.e. the river catchment or basin. The WFD establishes a common framework for the sustainable and integrated management of all waters covering groundwater, inland surface waters, transitional waters and coastal waters.

For the purpose of implementing the WFD, Ireland has been divided into eight River Basin Districts or areas of land that are drained by a large river or number of rivers and the adjacent estuarine/ coastal areas. The management of water resources is divided into these River Basin Districts. The plan area is located in the Eastern River Basin District (ERBD).

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

5.5.2 Surface Water & Groundwater

As the Biodiversity Section demonstrates, water quality has a clear interaction and impact with other key environmental parameters making its protection of key importance. Key challenges for the LAP include avoiding the deterioration of water quality whilst delivering physical infrastructure to meet population growth. Adequate storm water drainage and retention facilities are necessary to accommodate surface water run-off resulting from current and future developments in Clane. The use of Sustainable Drainage Systems (SuDS) and Green Infrastructure in new developments will contribute to surface water retention and help to reduce and prevent flooding, by mimicking the natural drainage of a site.

The Water Framework Directive (WFD) requires Member States to manage all of their waters and ensure that they achieve at least 'good status' by 2015. The River Basin Management Plan affecting the plan area sets out the objectives and actions required to achieve at least 'good' quality status for all waters, in the period 2009-2015 and thereafter. The ultimate deadline for Member States for achievement of 'good' status is 2027 at the latest. In line with requirements of the Eastern River Basin District River Basin Management Plans (ERBD RBMP) 2009 – 2015, ecological sampling by the EPA is carried out.

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

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

Clane is located within the Liffey Water Management Unit of the Eastern River Basin District. This Water Management Unit contains the Liffey Lower and Gollymochy waterbodies. The status of surface water here is "Moderate" and the objective is to reach "Good" status. The overall status of groundwater in the area is "Good" and the objective is to "Protect" this status into the future. Kildare County Council and the Environmental Protection Agency carry out water quality monitoring in these waterbodies for the purpose of the Water Framework Directive.

5.5.3 Flooding and Flood Risk

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

Clane has a history of flooding at various locations throughout the town, arising from the fluvial sources of the Cott/Butterstream, Gollymochy and Liffey rivers and from groundwater and artificial drainage systems. Works have been carried out to alleviate flooding in the recent past including those at the Butterstream and from Millicent Road junction to Clane Hospital.

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

In line with The Planning System and Flood Risk Management Guidelines for Planning Authorities (2009), a Strategic Flood Risk Assessment (SFRA) was undertaken as part of the LAP preparation. The LAP avoids development in areas at risk of flooding and has substituted vulnerable land uses with a less vulnerable uses where this is not possible in zoning lands in this Plan. Where neither is possible, mitigation and management of risks must be proposed. Justification tests were carried out on a number of sites in this regard and are outlined in the SFRA report accompanying this Plan.

The SFRA for the LAP has recommended that development proposals for a number of areas within the plan boundary should be the subject of site-specific flood risk assessment appropriate to the nature and scale of the development being proposed. The SFRA also contains Flood Zone Mapping for the plan area which highlights those parts of the area that are at a higher risk of flooding.

5.5.4 Existing Water Issues

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

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

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

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

5.6 Air & Climate

5.6.1 Air Quality

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

The Environmental Protection Agency is involved in air quality monitoring and has installed a number of air quality monitoring stations throughout Ireland. The EPA Report *Air Quality in Ireland 2015* provides an overview of the air quality in the country for 2015 based on data obtained from the 31 monitoring stations. There is no detailed information available for the plan area with the closest monitoring station, for Co. Kildare, being located in Naas where the current Air Quality is 'Good'. The County of Kildare is primarily rated located within Zone D (primarily smaller settlements and rural areas outside of cities and major centres).

5.6.2 Climate Change

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

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

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

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

5.6.3 Existing Air and Climate Issues

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

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

The potential effects of climate change resulting in an increase in the frequency and severity of flooding events from rainfall must also be considered in the Clane LAP. Severe rainfall events as a result of climate change could adversely impact upon the Town's population, its biodiversity and its local economy.

5.7 Material Assets

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

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

5.7.1 Transportation

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

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

The Clane LAP area is located at the intersection of the R403 (Celbridge to Prosperous) and R407 (Kilcock to Naas) Regional Roads and has a Liffey crossing on the southern edge of the town at Alexandra Bridge. Given its strategic position between the M4 and M7 and its proximity to significant employment centres in County Kildare and the Greater Dublin Area, the town experiences a high volume of through traffic. Traffic volumes approaching Clane from the Prosperous, Kilcock, Celbridge and Sallins roads are significant, with much of this traffic travelling through Main Street. The road network in Clane is radial. All routes focus onto the Main Street and there are limited cross connections. This causes significant congestion in the town centre area.

Public transport is limited to bus services with connections to Naas, Newbridge and Dublin. The town is located a reasonably short distance from both Maynooth (13km) and Sallins (6km) train stations, providing good access to the Kildare and Maynooth commuter rail services and intercity services to the south and west.

The LAP supports the development of a good quality walking and cycling network that is legible and provides safe and attractive connections for pedestrians and cyclists, particularly along key desire lines. The Greater Dublin Area (GDA) Cycle Network Plan identifies a network of intra-urban and urban cycle routes across the GDA. The network identified for Clane is set within the wider inter-urban network. Inter-Urban Route K3 extends from Celbridge to Clane and includes spurs to Maynooth and Straffan; and Inter-Urban Route K7 extends from Clane to the Grand Canal at Landenstown where it connects to a Greenway.

5.7.2 Existing Transportation Issues

One of the major challenges facing Clane during the Plan period is the need to improve connectivity for local journeys by providing new vehicular, cyclist and pedestrian connections for local use, whilst balancing the needs of through traffic.

5.7.3 Waste Management

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

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

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

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

Refuse collection in Clane is currently carried out by a number of private contractors and recycling facilities for glass and cans are located at Clane GAA and Supervalu.. The LAP will continue to encourage recycling and the minimisation of waste through its environmental education programme and the Green-Schools programme.

5.7.4 Water Supply

Clane is served by the North-East Kildare Regional Water Supply Scheme, with water supplied from the water treatment plant at Ballymore Eustace. Irish Water considers that the North-East Kildare Regional Water Supply Scheme has sufficient capacity to provide for the growth of Clane. However, there are some deficiencies within the network which will require to be addressed in conjunction with development.

5.7.5 Wastewater

The safe treatment and disposal of sewerage is fundamental to the sustainable development of our society. The treatment of wastewater is either through wastewater treatment plants or individual septic tank units.

Clane is served by the Upper Liffey Valley Regional Sewerage Scheme (ULVRSS), which ultimately connects to the wastewater treatment plant at Osberstown and discharges to the River Liffey. The Osberstown WWTP is currently operating to a capacity of 80,000 population equivalent (PE), with an upgrade to 150,000 PE due to be completed by Q4 2016 and planned capacity of 350,000 PE by 2048.

5.7.6 Existing Wastewater Issues

There is capacity in the WWTP to cater for the planned growth in Clane. However, significant constraints within Clane and the wider collection network to which it connects must be addressed in order to facilitate intended growth. The upgrading of the network by Irish Water is proposed under Contract 2B of the ULVRSS. Elements relevant to Clane comprise:

- Upgraded pumping stations at Clane, Sallins and Monread, Naas.
- Upgraded rising mains at Clane-Sallins and Sallins-Osberstown and interceptor sewer at Monread.
- New/upgraded sewers within Clane and Sallins towns.

The target date for completion of these works under Contract 2B is early 2020. The lands zoned under the Clane Local Area Plan 2009 have been revised in the LAP so far as is deemed necessary to ensure a sequential approach to zoning, the promotion of development on underutilised lands, the achievement of a compact urban form and the avoidance of flood risk.

Key infrastructure is required to implement this approach, and a sequential phasing strategy for the delivery of same. The upgrade of the local wastewater network, to include new pumping stations at Sallins and Clane, is a critical determinant for new development.

5.7.7 Energy

Electricity is provided in Ireland through a national grid system which is made up of a network of high voltage (110,000 volts, 220,000 volts and 400,000 volts) transmission stations, power lines and cables. The system includes approximately 6,000 km of overhead lines and underground cables and over 100 transmission stations. Power is generated by power plants throughout the country, utilising a variety of fuel or energy sources – including gas, oil, coal, peat, hydro-electricity, wind turbines and other sources including biomass and landfill gas.

Kildare is traversed by the highest voltage lines of the Eirgrid Transmission System, including a 220kV line which runs through Clane. The benefit of this network is that the county generally has the potential to be in a position to meet electricity demands with the minimum of network reinforcement. However, the presence of such infrastructure has implications in terms of visual impact and land use compatibility, particularly in Clane where the lines are within 600m of the town centre in places, through lands containing or intended for educational, residential and recreation uses.

Clane is connected to the natural gas network, supplied via a spur off the Cork - Dublin high pressure gas transmission pipeline.

Broadband is readily available in Clane. A number of telecoms providers have network infrastructure serving the area and provide various types of connectivity from fixed line to wireless and mobile broadband.

5.7 Cultural Heritage, Archaeological and Archaeological Heritage

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

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

5.7.1 Architectural Heritage

The Kildare County Development Plan identifies a number of protected structures in Clane. One of the core aims of this LAP is to conserve and enhance these unique aspects of the town. There are many buildings of character and historical significance in Clane and many of the streetscapes including the buildings along Main Street offer group value. The most notable buildings within the plan area are the Church of St. Patrick and St. Brigid, the former convent and school house buildings and Clane Abbey and Graveyard. The Alexandra Bridge is also of significance and presents a valuable historic feature on the approach to the town in addition to its importance as a strategic route into the town.

The Planning and Development Act 2000 (as amended) affords protection to buildings and groups of buildings, including townscapes, of special architectural, historical, archaeological, artistic, scientific, social or technical interest. The protection also extends to any features specified as being in the attendant grounds. The National Inventory of Architectural Heritage (NIAH) for Kildare was completed in 2003 and the Council completed a review of the Record of Protected Structures (RPS) for the county including Clane in 2015.

The following is an extract from the Kildare County Development Plan 2017-2023 as it relates to Protected Structures in Clane.

RPS No.	NIAH No	Structure Name	Townland	Description
B14-55	11808004	Jones Public House, Main Street, Clane	Clane	Public House
B14-57		The Corner House, Main Street, Clane	Clane	Public House
B14-58		Church of Ireland & Grounds, building & boundary, Clane	Clane	Church
B14-59		Bellaville House, Prosperous Road, Clane	Clane	House
B14-60	11808008	Convent, Main Street, Clane	Clane	Convent
B14-61	11808009	Church of St. Patrick & St. Brigid, Main Street, Clane	Clane	Church
B14-62	11808003	Former Garda Barracks, Main Street, Clane	Clane	
B14-63	11808013	Alexandra Bridge, Naas Road, Clane	Clane	Bridge
B14-64	11808011	House at Junction (Village Inn/Jas Manor) North Main Street, Clane	Clane	Public House

B14-65		Clane Abbey & Graveyard	Clane	Monument
B14-66		Bullan Stone Monument	Clane	Monument
B14-67		Clane Socket Stone of Cross Monument	Clane	Monument
B14-68		Motte Monument, Clane	Clane	Monument
B14-70		Stone bridge at end of Stream Park Bridge, Clane	Clane	Bridge
B14-71		Large Stone Bridge at Stream Park Bridge, Clane	Clane	Bridge
B14-72	11808012	The Presbytery, Main Street, Clane	Clane	Presbytery
B14-73	11808006	Old National School, Main Street, Clane	Clane	School
B14-78	11808001	Clane Coach House, Main Street, Clane	Clane	Coach House
B14-41	11808005	Main Street, Clane	Clane	House
B14-42	11808010	Abbeylands House, Clane	Clane	House

Table 5.5 Clane Record of Protected Structures

5.7.2 Archaeological Heritage

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

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

The Urban Archaeological Survey (1980) identified Clane as a medieval settlement. This provides a base-line inventory of the known archaeological sites and monuments and these are identified in the Record of Monuments and Places. This survey also identified the Zone of Archaeological Potential, indicated on Map 5.3.

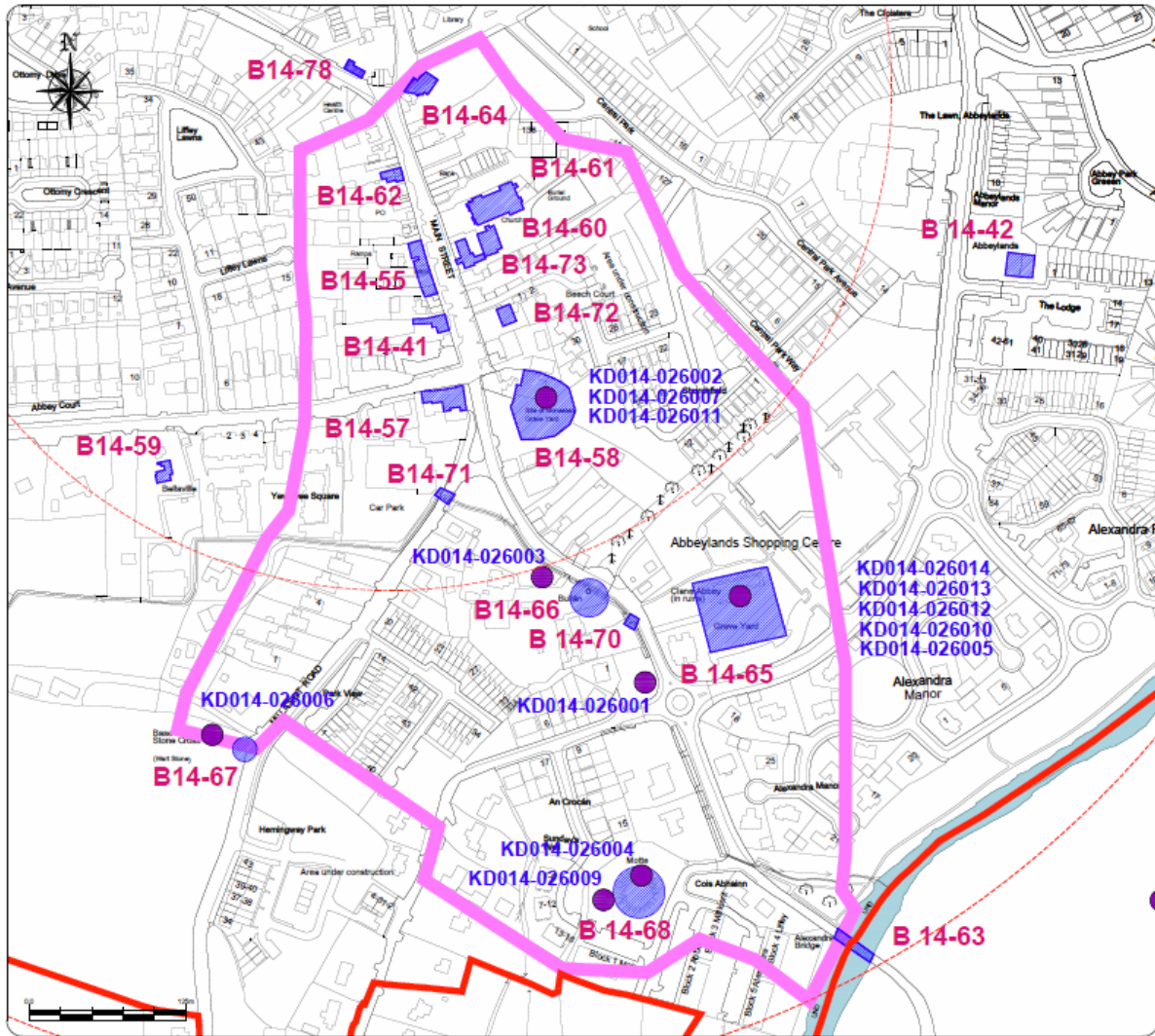


Figure 5.3: Zone of Archaeological Potential

Developments located within the Zone of Archaeological Potential and/or within close proximity to Recorded Monuments may be required as part of the planning application process, or by condition of permission, to carry out archaeological assessment, monitoring, testing or excavation within the area, either prior to the planning decision or prior to any development works proceeding on the site. The Council, as a condition on such developments, may consider the preservation of all or part of the archaeological remains in the area covered by the permission.

5.8 Landscape

5.8.1 Introduction

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

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

5.8.2 Landscape Character Types

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

Clane's natural heritage is a unique and special resource. As well as the River Liffey, there are a number of hedgerows, trees and watercourses within the plan area that help sustain habitats and biodiversity. It is critical to retain existing key landscapes and open spaces which help provide a sense of identity and place to Clane.

The landscape of Clane is typical of lowlands of northeast Kildare being visually flat and sub-divided by strong hedgerows and tree-lines. The landscape is punctuated by small stands of mature trees.

The landscaping planning context is considered under the Kildare County Development Plan 2017 – 2023; the National Inventory of Architectural Heritage (Historic Gardens and Designed Landscapes) and the National Inventory of Outstanding Landscapes of Ireland.

Landscape, Recreation and Amenities are considered under Chapter 14 of the County Development Plan and also includes the Landscape Character Assessment of the County. The landscape of the county has been divided into 15 Landscape Character Areas (LCAs).

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

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

5.8.3 Existing Environmental Issues

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

Urban areas particularly within commuting distance of the capital have grown rapidly which has eroded the essential character of these towns. Generally, the volume of large development within these towns is not in keeping with their character or scale and has created a series of autonomous developments with no reference to their rural setting. Also many settlements have grown at a rate that the historic centres have become detached from the majority of their populations and the relationship between urban areas and landscape setting has been largely lost.

5.9 Interactions

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

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

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

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

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

To highlight the extent of the relationship between the various elements of the environment the matrix presented in Table 5.6 provides an indication of the interactions present between environmental receptors. Categories highlighted in **blue** identify where interactions between environmental receptors occur.

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

Table 5.6 Interrelationship between Environmental Receptors

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

5.10 Overlay of Environmental Sensitivities

In order to identify where most sensitivities within the Clane LAP occur, a number of the environmental sensitivities were mapped to identify areas of overlapping with each other.

Environmental sensitivities are indicated by colours which range from High Vulnerability, Elevated Vulnerability, Moderate Vulnerability and Low Vulnerability. Where the mapping shows a concentration of environmental sensitivities, there is an increased likelihood that development will conflict with these sensitivities and cause environmental deterioration. This is particularly the case where the sensitivities arising from areas of green infrastructure, cultural heritage and proximity to the River Liffey or flood Risk combine to increase the overall sensitivity of an area to development.

Figure 5.4 provides an overlay of environmental sensitivities in the Clane LAP area.

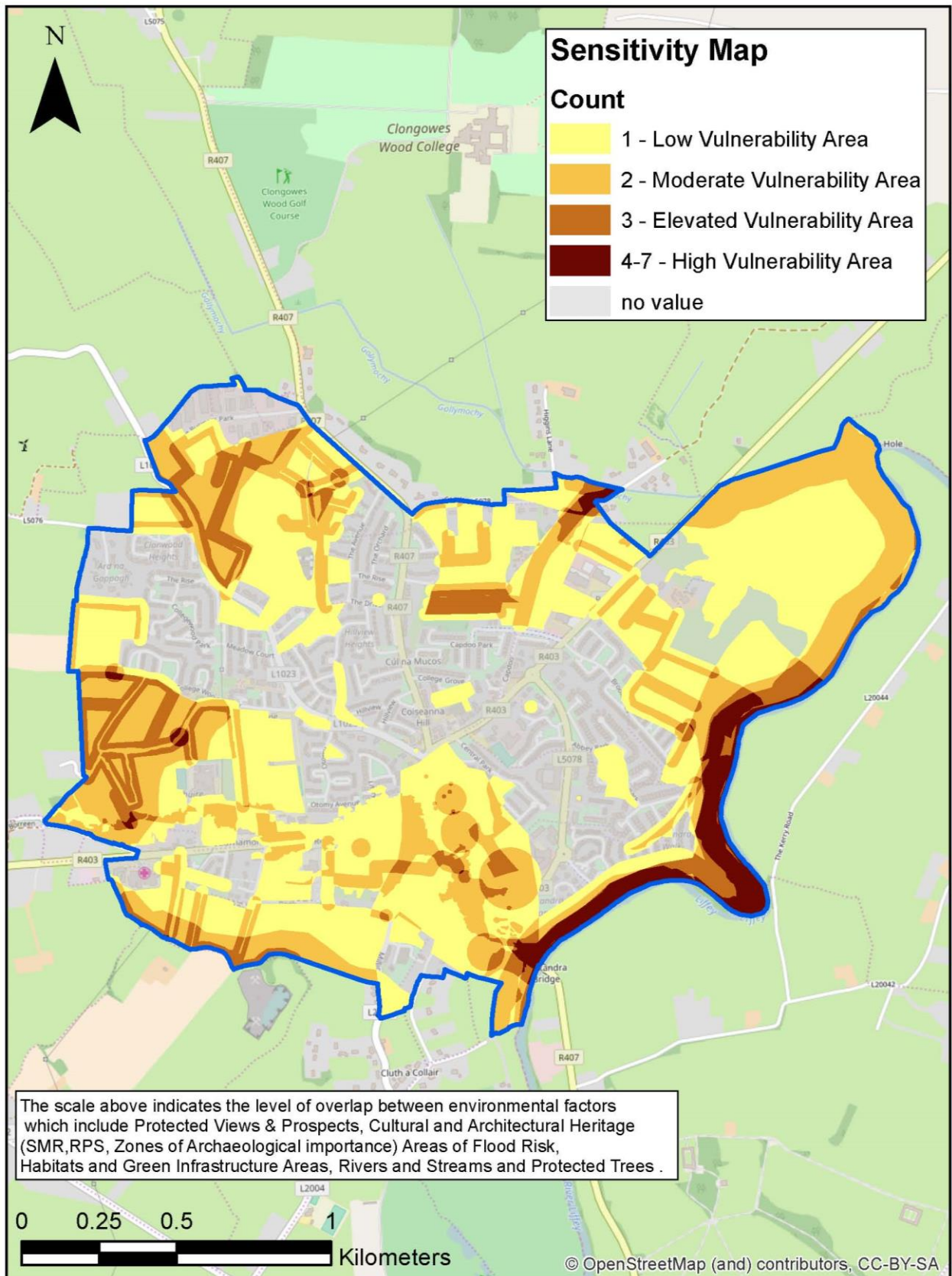


Figure 5.4 Environmental Sensitivities Mapping Clane

5.10.1 Methodology

A weighting system applied through Geographical Information System (GIS) software was used in order to calculate the vulnerability of all areas within the LAP boundary. Equal value is given to all environmental components (landscape, water, biodiversity etc.) although a distinction is made between the various sensitivity factors of each aspect:

- High Vulnerability Areas are given a weighting of 4-7 points of sensitivity and include between four to seven of the following overlapping environmental sensitives that are at risk from development:
 - Ecological Habitats,
 - Green Infrastructure Areas;
 - Protected Trees,
 - Areas Of Flood Risk,
 - Protected Views,
 - Recorded Monuments And;
 - Protected Structures
 - Rivers/Streams.
- Elevated Vulnerability Areas are given a weighting of three overlapping points of environmental sensitivity within the LAP boundary.
- Moderate Vulnerability Areas are given a weighting of two overlapping points of environmental sensitivity within the LAP boundary.
- Low sensitivity factors are given a weighting of one point of environmental sensitivity within the LAP boundary.

5.10.2 Use of the Overlay Mapping

Although there are limitations and elements of subjectivity to the overlaying of sensitivities, the overlay mapping was used in order to speedily identify the areas where conflicts between development within the plan area and environmental sensitivities would be likely to occur if unmitigated.

5.10.3 Quantification of Sensitivities

Table 3.16 quantifies the percentage area within the LAP boundary which falls under each of the vulnerability area classifications when all selected factors are given equal weighting. It is noted that 38% of the County's area is classified, under this weighting system, as being of no value, 20% as being of moderate vulnerability and a relatively smaller area (3%) classified as being high or extreme vulnerability. The most sensitive areas are the lands around the River Liffey.

Vulnerability Class	% of lands within LAP Boundary
1 - Low Vulnerability	32%
2 – Moderate Vulnerability	20%
3 – Elevated Vulnerability	6%
4 – High Vulnerability	3%
No Value	38%

Table 5.3 Quantification of vulnerability areas (Environmental Sensitivities)

5.10.4 Limitations

It is noted that there are elements of subjectivity to the weighting systems used in this section. However, it is also noted that efforts were made to be as objective as possible - for Figure 5.4 each factor was given an equal weighting depending on whether it is a highly or a moderately sensitive factor.

5.10.5 Conclusions

Over half of the Plan area in Clane is identified as being of No or Low Vulnerability. The most elevated and high vulnerability areas are located along the River Liffey. Areas of moderate vulnerability are found in the west and northwest of the plan area as they have been identified as key green infrastructure areas by Kildare County Council.

6 Strategic Environmental Objectives

6.1 Introduction

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

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

Thus to achieve the aim of assessing and improving the environmental performance of the Local Area Plan, a number of Environmental Objectives, specific to each environmental topic have been formulated, see Table 6.1. These SEOs are a fundamental part of the SEA process. The Objectives are derived through consultation between the Planning Authority, the report authors (guided by SEA guidelines, incorporating where relevant international, national and regional policies which govern environmental protection/conservation) and are based on the overall strategy of the Planning Authority to safeguard the environmental integrity of the Local Area Plan area and to develop its functional area in a sustainable manner.

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

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

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

Environmental Component	Strategic Environmental Objectives
BIODIVERSITY, FLORA & FAUNA	B1: Conserve and where possible enhance the diversity of habitats and protected species avoiding irreversible losses
	B2: Promote measures to protect biodiversity by creating and improving habitats, where possible
	B3: Provide opportunities for sustainable public access to wildlife and wild places at appropriate locations
	B4: Avoid damage by development to designated wildlife sites and protected species, and associated ecological corridors/ linkages
POPULATION	P1: To provide for appropriate community facilities, amenities and infrastructure to support new and existing developments within and surrounding the village centre
SOILS & GEOLOGY	S1: To maintain the quality of soil
	S2: To maximise the sustainable re-use of brownfield lands where possible
WATER	W1: Protect and enhance the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems
	W2: Promote sustainable water use based on a long-term protection of available water resources
	W3: Prevent pollution and contamination of ground water by adhering to aquifer protection plans.
	W4: Reduce risk of flooding through avoidance of development in Flood Zones A or B.
AIR CLIMATE & NOISE	A1: Facilitate measures to reduce all forms of Air Pollution
	A2: Minimise emissions of greenhouse gases to contribute to a reduction and avoidance of human-induced global climate change
	A3: Protect human health through minimising the risk of noise and vibrations from traffic, industrial processes and extractive industry.
MATERIAL ASSETS	M1: To protect the environment from the adverse effects of the wastewater discharges by ensuring that wastewater is appropriately treated before it is discharged to the environment
	M2: To ensure that drinking water supplies are free of contamination.
CULTURAL HERITAGE	C1: Protect and conserve the cultural heritage including the built environment and settings; archaeological (recorded and unrecorded monuments), architectural (Protected Structures, Architectural Conservation Areas, vernacular buildings, materials and urban fabric) and manmade landscape features.
LANDSCAPE	L1: Conserve and enhance valued natural and historic landscapes and their character and features within them

7 Description of Alternatives

7.1 Introduction

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

7.2 Legislative Context

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

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

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

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

7.3 Methodology for the Selection of Alternatives

The plan is based on the principles of sustainable development which means that development will be promoted in accordance with the appropriate international, national, regional and county guidelines.

Particular reference is drawn to the Core Strategy of the Kildare County Development Plan which must be complied with. The following factors have been used to determine the suitability of specific lands for residential development which constitute the proper planning and sustainable development of the town:

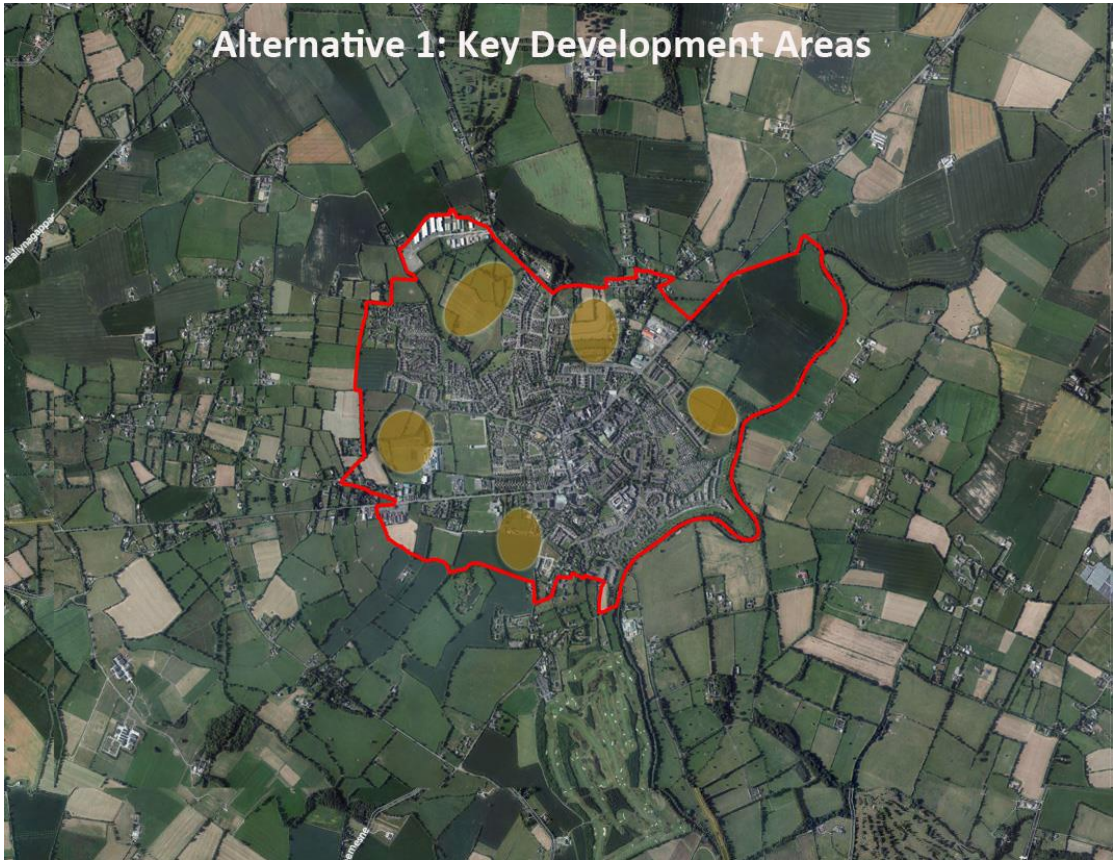
- Proximity to the Clane town centre;
- Proximity to the schools;
- Availability of Public Transport - to maximise public transport investment, it is important that land use planning underpins its efficiency by sustainable transport patterns. This includes promoting higher densities within 400m metres walking distance of a bus stop.
- Regeneration/Renewal of residential areas or other brownfield sites;
- Environmental Constraints – proximity to and potential impact on the qualifying interests of the adjoining designated sites;
- The need to provide new roads infrastructure to facilitate development
- Consideration as to whether a site could be considered an infill opportunity as opposed to extending the urban footprint further from the town centre
- Leapfrogging beyond other available sites will not be considered favourably.

7.4 Description of Proposed Alternatives

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

- Alternative 1: To consolidate the town centre and identify key development areas to accommodate proposed population growth, in conjunction with infrastructure provision and a longer term amenity focus on the River Liffey.
- Alternative 2: To develop lands to the south of the River Liffey (east of the R407) Clane for residential purposes.
- Alternative 3: Lands to the south of the Prosperous Road and immediately south of the hospital.
- Alternative 4: Development of the lands to the west of the LAP boundary at Butterstream
- Alternative 5: Development of lands on the Ballinagappa Road
- Alternative 6: Lands to the North of the LAP boundary (north of Clane Business Park)
- Alternative 7: To carry forward the development strategy from the previous LAP

7.4.1 Alternative 1: To Consolidate the Town Centre and Identify Key Development Areas to Accommodate Proposed Population Growth, in Conjunction with Infrastructure Provision and a Longer Term Amenity Focus on the River Liffey.



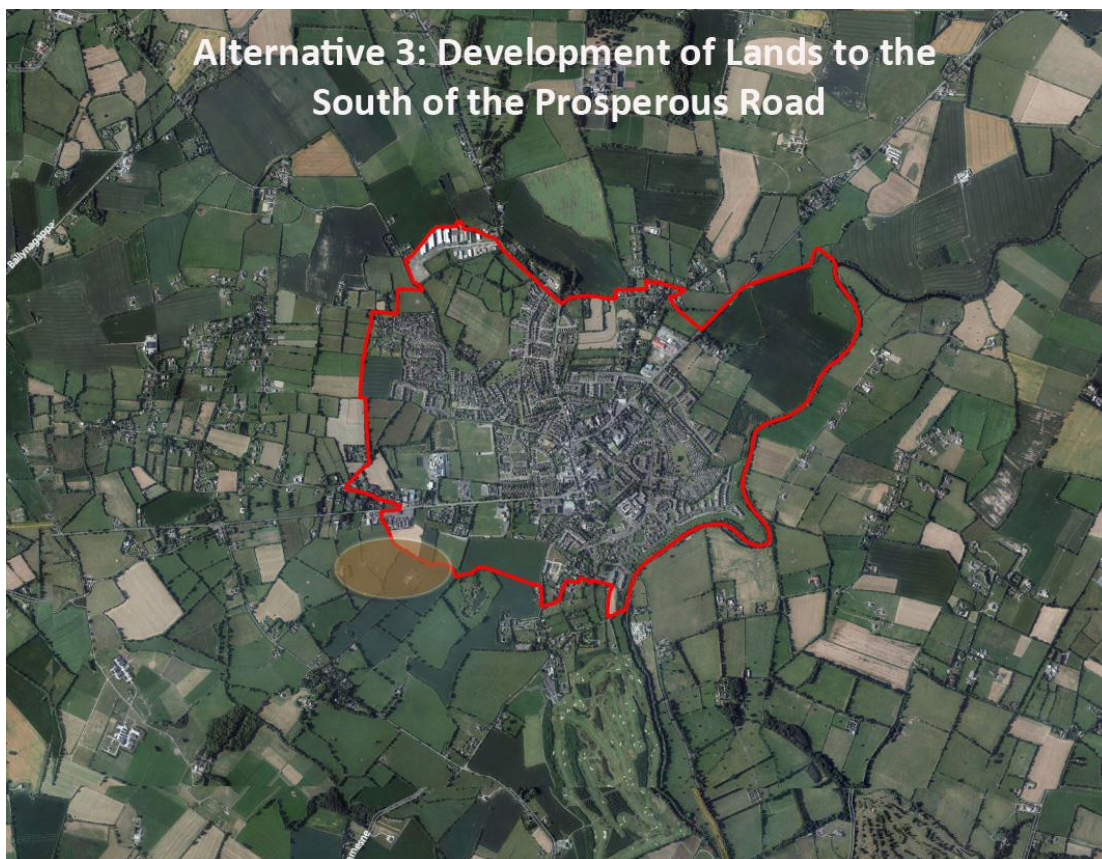
To consolidate the town centre and identify key development areas to accommodate proposed population growth, in conjunction with infrastructure provision and a longer term amenity focus on the River Liffey.	
Critical Evaluation	Effects on Planning
<p>Housing, community facilities and infrastructure provided in tandem at appropriate locations, meeting the allocated population target from the Kildare CDP.</p> <p>Five key development areas ensuring sequential sustainable residential development in closest proximity to services.</p> <p>Town centre, along with expansion of employment uses, meeting the needs of the population.</p> <p>The provision of an amenity and biodiversity protection zone along the River Liffey and along Nancy’s Lane.</p>	<p>Provision of key infrastructure in tandem with development (childcare, roads, open space/amenity) and reservation of lands for the provision of a town park in longer term.</p> <p>Protection of natural heritage.</p> <p>Focused and plan-led development approaches for land banks rather than a piecemeal approach to smaller sites.</p> <p>Sustainable approach to development.</p>
Conclusion	
Yes	

7.4.2 *Alternative 2: To Develop Lands to the South of the River Liffey (east of the R407) Clane for Residential Purposes.*



To develop lands to the south of the River Liffey (east of the R407) Clane for residential purposes.	
Critical Evaluation	Effects on Planning
<p>These lands are disconnected from the remainder of the town due to the River Liffey and restricted access to the town centre via Alexandra Bridge which has limited carrying capacity.</p> <p>There is a flood risk at this location.</p> <p>A limited quantity of land would be required to be zoned for the Core Strategy requirements. The development of these lands would require an alternative local Liffey crossing. A new crossing could not reasonably be delivered in conjunction with this quantity of zoned lands.</p>	<p>Non- sequential approach to development Lands zoned in close proximity to the River Liffey and possible impacts on heritage and flood risk.</p> <p>Zoning of large extent of land would not be in accordance with Core Strategy.</p> <p>Less sustainable approach.</p>
Conclusion	
No	

7.4.3 *Alternative 3: Development of Lands to the South of the Prosperous Road and Immediately South of the Hospital.*



Development of Lands to the south of the Prosperous Road and immediately south of the hospital.	
Critical Evaluation	Effects on Planning
Edge of settlement. Adjacent to existing Hospital and Nursing home. Potential for future expansion of same. There is a flood risk at this location. Congestion on Prosperous Road.	Has potential to lead to an uncoordinated use of lands with disconnected neighbourhoods and isolated areas of employment. Distance from the town centre Possibility to provide a roads objective No apparent need for further residential development
Conclusion	
No	

7.4.4 *Alternative 4: Development of the Lands to the West of the LAP Boundary at Butterstream*



Development of the lands to the west of the LAP boundary at Butterstream	
Critical Evaluation	Effects on Planning
<p>Allows for growth of residential development at peripheral location to the west of the town.</p> <p>The development pattern is likely to detract from the town centre with increased vacancies on the existing Main Street and lack of critical mass resulting in a less vibrant town centre.</p> <p>Close proximity to the education and recreational facilities.</p> <p>Adjacent to existing residential areas.</p>	<p>Has potential to lead to an uncoordinated use of lands with disconnected neighbourhoods.</p> <p>Distance from the town centre</p> <p>No apparent need for further residential development.</p>
Conclusion	
No	

7.4.5 *Alternative 5: Development of lands on the Ballingappa Road*



Development of lands on the Ballingappa Road	
Critical Evaluation	Effects on Planning
Edge of settlement.	Sequentially furthest from town centre.
Lack of connections/permeability.	Likely uncoordinated use of lands with disconnected neighbourhoods.
Carrying capacity on Ballingappa Road.	
Conclusion	
No	

7.4.6 *Alternative 6: Lands to the North of the LAP Boundary (north of Clane Bus Park)*



Lands to the North of the LAP boundary (north of Clane Bus Park)	
Critical Evaluation	Effects on Planning
Provides for expansion and growth of the existing business park.	Lands with Flood Risk zoned for development.
Other undeveloped lands closer to town centre	Lack of consolidation of town area.
Flood risk	
Lands on the Celbridge Road also suitable for employment generating uses.	
Conclusion	
No	

7.4.7 *Alternative 7: To carry forward the development strategy from the previous LAP*



To carry forward the development strategy from the previous LAP	
Critical Evaluation	Effects on Planning
The previous LAP was prepared prior to guidelines on SFRA, urban design, sustainable residential development etc.	Lands with Flood Risk zoned for development. Lack of consolidation of town area.
Conclusion	
No	

7.5 Evaluation of Alternatives

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

Positive	
Neutral	
Uncertain	
Negative	

7.6 Outcome of Alternatives Assessment

Table 7.1 highlights that a comparative assessment of the proposed alternatives shows Alternative 1; which provides for the consolidation of the town centre through the identification of key development areas to accommodate the proposed population growth, in conjunction with the provision of infrastructure and a longer term amenity focus on the River Liffey was the most appropriate and environmentally protective to the future development of Clane.

This approach would meet a large number of objectives of the LAP as it supports the consolidation of the town centre by encouraging the development of vacant and underutilised sites whilst including infrastructural improvements. The provision of a town park would improve the amenity of the town whilst protecting the biodiversity and natural heritage along the River Liffey and the environs of the town. Alternative 1 would support the intensification of the town centre of Clane reinforce its urban core.

Table 7.1 SEA Assessment of Alternative Scenarios

Assessment against SEA Objectives and Alternative Scenarios	Alternative 1: Consolidate the town centre and identify key development areas	Alternative 2: To develop lands to the south of the River Liffey (east of the R407) Clane for residential purposes.	Alternative 3: Lands to the south of the Prosperous Road and immediately south of the hospital.	Alternative 4: Development of the lands to the west of the LAP boundary at Butterstream	Alternative 5: Development of lands on the Ballingappa Road	Alternative 6: Lands to the North of the LAP boundary (north of Clane Bus Park)	Alternative 7: To carry forward the development strategy from the previous LAP
SEA Objective							
BIODIVERSITY							
B1: Conserve and where possible enhance the diversity of habitats and protected species avoiding irreversible losses	Neutral	Negative	Neutral	Neutral	Neutral	Neutral	Neutral
B2: Promote measures to protect biodiversity by creating and improving habitats, where possible	Neutral	Negative	Neutral	Neutral	Neutral	Neutral	Neutral
B3: Provide opportunities for sustainable public access to wildlife and wild places at appropriate locations	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral
B4: Avoid damage by development to designated wildlife sites and protected species, and associated ecological corridors/ linkages	Neutral	Negative	Neutral	Neutral	Neutral	Neutral	Neutral

POPULATION							
SEA Objective	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7
P1: To provide for appropriate community facilities, amenities and infrastructure to support new and existing developments within and surrounding the village centre	Positive	Negative	Negative	Positive	Negative	Negative	Positive
SOILS AND GEOLOGY							
S1: Maintain the quality of soil.	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain
S2: To maximise the sustainable re-use of brownfield lands where possible	Positive	Negative	Negative	Negative	Negative	Negative	Positive
WATER							
W1: Protect and enhance the status of aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands directly depending on the aquatic ecosystems	Uncertain	Uncertain	Neutral	Neutral	Neutral	Neutral	Neutral
W2: Promote sustainable water use based on a long-term protection of available water resources	Neutral	Uncertain	Neutral	Neutral	Neutral	Uncertain	Neutral
W3: Prevent pollution and contamination of ground water by adhering to aquifer protection plans.	Neutral	Neutral	Neutral	Neutral	Neutral	Uncertain	Negative
W4: Reduce risk of flooding through avoidance of development in Flood Zones A or B.	Positive	Negative	Negative	Neutral	Neutral	Neutral	Negative
AIR QUALITY & CLIMATE							
A1: Facilitate measures to reduce all forms of Air Pollution	Positive	Uncertain	Negative	Neutral	Negative	Negative	Positive

A2: Minimise emissions of greenhouse gases to contribute to a reduction and avoidance of human-induced global climate change	Positive	Negative	Negative	Negative	Negative	Negative	Positive
A3: Protect human health through minimising the risk of noise and vibrations from traffic, industrial processes and extractive industry.	Negative	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain	Uncertain
MATERIAL ASSETS							
M1: To protect the environment from the adverse effects of the wastewater discharges by ensuring that wastewater is appropriately treated before it is discharged to the environment	Neutral	Uncertain	Neutral	Neutral	Neutral	Neutral	Neutral
M2: To ensure that drinking water supplies are free of contamination.	Neutral	Uncertain	Neutral	Neutral	Neutral	Neutral	Neutral
CULTURAL HERITAGE							
C1: Protect and conserve the cultural heritage including the built environment and settings; archaeological (recorded and unrecorded monuments), architectural (Protected Structures, Architectural Conservation Areas, vernacular buildings, materials and urban fabric) and manmade landscape features.	Neutral	Uncertain	Neutral	Neutral	Neutral	Neutral	Neutral
LANDSCAPE							
L1: Conserve and enhance valued natural and historic landscapes and their character and features within them	Neutral	Uncertain	Neutral	Neutral	Neutral	Neutral	Neutral

8 Strategic Environmental Assessment of Clane LAP

8.1 Introduction

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

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

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

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

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

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

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

Table 8.1 Environmental Assessment Of Proposed LAP Policies and Objectives

Specific Elements/Components Of Clane LAP	Potential Negative Impact	Potentially Uncertain Impact	Potentially Neutral or No relationship	Potential Positive Impact	Comments
Proposed Policies & Objectives Core Strategy					
Policy CS1 – Core Strategy It is the policy of the Council to support the sustainable long-term growth of Clane as a Small Town in accordance with the Core Strategy of the Kildare County Development Plan 2017-2023.				B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, A1, A2, A3, P1	
Objective CSO1.1 To support and facilitate sustainable intensification and consolidation in the town centre and in established residential and industrial areas.			B3, W1, W2, W3, W4, M3	B1, B2, B4, S1, S2, A1, A2, A3, L1	
CSO1.2 To focus new residential development into the Key Development Areas identified in the Core Strategy map and new enterprise development into areas identified for light industry and warehousing and business and technology development.			B1, B2, B3, B4, S1,S2,W1,W2,W3,A1,A3, M1,M2,C1	P1,W4,A2,L1	
CSO1.3 To support and facilitate development on zoned lands based on the policies and objectives of the Kildare County Development Plan 2017-2023 and the Clane Local Area Plan 2017-2023.			M1,M2	B1,B2,B3,B4,P1,S1,S2, W3,A1,A2,A3,C1,L1	

Proposed Policies & Objectives Town Centre					
<p>Policy R1 - Town Centre It is the policy of the Council to protect and enhance Clane’s role as a vibrant and attractive town that provides a range of retail, commercial, civic, social and cultural services.</p>			B1, B2, B3, B4, S1, S2, W1, W2, W3,A1,A3,M1,M2, C1	P1,W4, A2, L1	
<p>Objectives RO1.1 To reinforce the town centre as a priority location for commercial, civic, social and cultural development and to promote new development that consolidates the existing urban core.</p>			B1, B2, B3, B4, S1, S2, W1, W2, W3,A1,A3,M1,M2, C1	P1,W4, A2, L1	
<p>RO1.2 To protect the quality, ambience, vibrancy and vitality of Clane Town Centre by promoting an appropriate mix of night and daytime uses.</p>			B1, B2, B3, B4, S1, S2, W1, W2, W3,A1,A3,M1,M2, C1	P1	
<p>RO1.3 To protect the character of the town centre and ensure that new development responds positively to its established built form, scale and character.</p>			B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, A1, A2, C1, M1, M2, L1	P1	
<p>RO1.4 To encourage and facilitate the full use of buildings and sites and in particular the use of upper floors and back lands, with due cognisance to the sequential approach to retail development, quality of urban design, integration and linkage.</p>			B1, B2, B3, B4, W1, W2, W3, W4, M1, M2, C1, L1	S2, P1,S1, A1, A2, A3	
<p>RO1.5 To improve the accessibility of the town centre with particular emphasis on creating an environment that is accessible to pedestrians and cyclists.</p>			B1, B2, B3, B4, W1, W2, W3, W4, M1, M2, C1, L1	P1, S1, S2, A1, A2, A3	

Proposed Policies & Objectives				
Retailing				
Policy R2- Retailing It is the policy of the Council to support the Level 3 retail function of Clane and to consolidate retail development within the town centre.			B1, B2, B3, B4, W1, W2, W3, W4, A3, C1	P1,S1,S2,A1,A2,L1
RO2.1 To support and facilitate new retail development of an appropriate scale in the town centre.			B1, B2, B3, B4, W1, W2, W3, W4, A3, C1	P1,S1,S2,A1,A2,L1
RO2.2 To protect the primacy of the town centre as the core retail area in Clane, through the application of a sequential approach to retail development, in accordance with the Retail Planning Guidelines for Planning Authorities, DECLG (2012).			B1, B2, B3, B4, W1, W2, W3, W4, A3, C1	P1,S1,S2,A1,A2,L1
RO2.3 To ensure that the scale and type of retail offer is appropriate to the Level 3 status of Clane and is sufficient to serve the local catchment without adversely impacting upon higher order retail centres.			B1, B2, B3, B4, W1, W2, W3, W4, A3, C1	P1,S1,S2,A1,A2,L1
RO2.4 To support the development of retail, retail services and niche retailing in Clane Town Centre.			B1, B2, B3, B4, W1, W2, W3, W4, A3, C1	P1,S1,S2,A1,A2,L1
Proposed Policies & Objectives				
Public Realm				
Policy R3 – Public Realm It is the policy of the Council to actively encourage, support and facilitate environmental and public realm improvements in Clane Town Centre to address environmental quality, urban design, safety, identify and traffic impact.			B4, M1, M2	L1,C1,B1,B2,B3, P1,A1,A2,A3

RO3.1 To ensure that all new development in the town centre contributes positively to and enhances the streetscape and public realm.			B1, B2, B3, B4, S1, S2, W1, W2, W3, W4	L1, C1, P1
Policy R4 - Shopfronts It is the policy of the Council to support the provision of high quality shop fronts and signage that contribute positively to and enhance the streetscape and to seek to control and limit superfluous and illegal signage.			B1, B2, B3, B4, S1, S2, W1, W2, W3, W4	L1, P1
RO4.1 To ensure that new shopfront design contributes positively to and enhances the streetscape, and is in accordance with the guidance set out in the County Kildare Shop Front Guidelines (2013).			B1, B2, B3, B4, S1, S2, W1, W2, W3, W4	L1, P1
RO4.2 To ensure that new signage contributes positively to and enhances the streetscape in accordance with the guidance set out in the Kildare County Council Policy on Signage (2013).			B1, B2, B3, B4, S1, S2, W1, W2, W3, W4	L1, P1
Proposed Policies & Objectives				
Undesirable Uses				
Policy R5 – Undesirable Uses. It is the policy of the Council to manage the provision of less desirable uses such as fast food outlets, take-aways, turf accountants and off-licences, in the interest of protecting the retail function, residential amenity and environmental quality of Clane Town Centre.			B1, B2, B3, B4, A1, A2, A3, S1, S2, M1, M2	L1, C1, P1
RO5.1 To prevent an excessive concentration of less desirable uses such as fast food outlets, take-aways, turf accountants/betting offices, amusement			B1, B2, B3, B4, A1, A2, A3, S1, S2, M1, M2	L1, C1, P1

arcades and off-licences in Clane Town Centre.						
Proposed Policies & Objectives Residential Development						
<p>Policy HC1 - Residential Development: Capacity and Delivery</p> <p>It is a policy of the Council to ensure that sufficient zoned land continues to be available at appropriate locations to satisfy the housing needs of Clane and that each household has access to good quality housing that is appropriate to its circumstance.</p>			B1, B2, B3, B4, S1,S2,W1,W2,W3,W4, L1	P1		
<p>HCO1.1 To require new residential developments to meet the standards and guidance as set out in:</p> <ul style="list-style-type: none"> • The Sustainable Residential Development in Urban Areas, Guidelines for Planning Authorities, DEHLG (2009) and the accompanying Urban Design Manual Best Practice Guide, DEHLG (2009). • The Design Manual for Urban Roads and Streets, DTTS and DECLG (2013). • The policies, objectives and development management standards contained in this Local Area Plan and in the Kildare County Development Plan. • Sustainable Urban Housing: Design Standards for New 			B1, B2, B3, B4, S1, S2, W1, W3, A1, A2, A3	P1, L1, C1, W2, W4, M2, M1		

Apartments Guidelines for Planning Authorities, DEHLG (2015).					
HCO1.2 To promote and facilitate the phased development of identified Key Development Areas in accordance with the guidance set out in Section 12.			B1, B2, B3, B4, S2, C1, M2	P1, L1, B4, S1, M1	
HCO1.3 To secure the provision of social infrastructure and community and recreational facilities in tandem with residential development, in accordance with the implementation strategy in Section 13 of the LAP.			C1, B1, B2, B3, B4, M2, C1, L1, W1, W2, W3, W4	P1, A1,A2, A3, B1, M1	
HCO1.4 To support residential development over commercial properties in the town centre.			B3, W2, M2, C1, L1	A1, A2, A3, M1, S2, W4, S1, B1, B2, B4, W1, W3	
HCO1.5 To encourage the development of brownfield and infill sites for residential uses.			B1, B2, B3, B4, S1,S2,W1,W2,W3,W4, L1	P1	
Proposed Policies & Objectives					
Residential Density, Mix and Design					
Policy HC2 - Residential Density, Mix and Design. It is the policy of the Council to require that all new residential development provides for a sustainable mix of house types, sizes and tenures and that new development complements the existing residential mix.			B1, B2, B3, B4, S1, S2, C1, L1, M1, M2, W1, W2, W3, W4	P1, A1, A2, A3	
HCO2.1 To ensure that a good mix of housing types and sizes is provided in each Key Development Area to meet the future needs of the population of Clane.			B1, B2, B3, B4, S1, S2, C1, L1, M1, M2, W1, W2, W3, W4, A1, A2, A3	P1	
HCO2.2 To require the submission of a Design Statement (CDP Section 17.3 refers) and Housing Mix Statement (CDP Section 17.4.3 refers) with applications			B1, B2, B3, B4, S1, S2, C1, L1, M1, M2, W1, W2, W3, W4	P1, A1, A2	

<p>for residential development in accordance with the provisions of the County Development Plan.</p>				
<p>HCO2.3 To apply a 10% social housing requirement, pursuant to Part V of the Planning and Development Act 2000 (as amended) to all sites that are zoned solely for residential use or for a mixture of residential and other uses (save where the development is exempt from the provisions of Part V).</p>			<p>B1, B2, B3, B4, S1, S2, C1, L1, M1, M2, W1, W2, W3, W4, A1, A2</p>	<p>P1,</p>
<p>Proposed Policies & Objectives Education, Childcare and Health Facilities</p>				
<p>Policy HC3 - Education, Childcare and Health Facilities To facilitate and secure the provision of social infrastructure to support existing and new communities, in a manner which provides flexibility to respond to varied and changing community needs.</p>			<p>B1, B2, B3, B4, S1, S2, C1, L1, M1, M2, W1, W2, W3, W4</p>	<p>P1, A1, A2, A3</p>
<p>HCO3.1 To support and facilitate improvements to existing educational, childcare and healthcare facilities within Clane.</p>			<p>B1, B2, B3, B4, S1, S2, C1, L1, M1, M2, W1, W2, W3, W4, A1, A2, A3</p>	<p>P1</p>
<p>HCO3.2 To require the provision of a minimum of 0.13 childcare spaces per dwelling on a pro-rata basis in the Key Development Areas, in accordance with the phasing requirements set out in Section 13 Implementation.</p>			<p>B1, B2, B3, B4, S1, S1, C1, L1, M1, M2, W1, W2, W3, W4</p>	<p>P1, A1, A2</p>
<p>HCO3.3 To support the provision of a purpose built childcare facility or facilities to meet the pro rata childcare needs of housing development during the Plan period.</p>			<p>B1, B2, B3, B4, S1, S1, C1, L1, M1, M2, W1, W2, W3, W4, A3</p>	<p>P1, A1, A2</p>

<p>Policy HC4 - Community Recreational Facilities It is the policy of the Council to facilitate and support a broad range of community and recreational facilities to serve the needs of the residents of Clane.</p>			B1, B2, B3, B4, S1, S1, C1, L1, M1, M2, W1, W2, W3, W4,A3	P1, A1, A2				
<p>Objectives HCO4.1 To support and facilitate the provision of multi-functional community facilities to meet the needs of the population of Clane.</p>			B1, B2, B3, B4, S1, S1, C1, L1, M1, M2, W1, W2, W3, W4, A3	P1, A1, A2				
<p>HCO4.2 To investigate feasibility of vehicular access to the north-west bank of the River Liffey, immediately upstream of and adjacent to Alexandra Bridge (as shown on Map 8.1), or at alternative locations, to facilitate leisure activities and emergency services, subject to appropriate environmental assessments</p>			B1, B2, B3, B4, S1, S2, W1, W2, A1, A2, A3, W3, W4, M1, M2, C1, L1	P1				
<p>Proposed Policies & Objectives Economic Development</p>								
<p>Policy ED1 - Economic Development It is the policy of the Council to support sustainable economic development and employment creation in Clane through the identification of appropriately located and adequately serviced lands for industry, business and enterprise, and through the promotion of improvements in transportation and other support infrastructure and the creation of a high quality environment.</p>			B1, B2, B3, B4, S1, S2,W1,W2,W3,W4,M1, M2,C1,L1	P1, A1, A2, A3				

<p>EDO1.1 To promote enterprise creation opportunities and initiatives, in line with the designation of Clane as a Small Town in the Kildare County Development Plan.</p>			<p>B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, A1, A2, A3, C1, L1</p>	<p>P1</p>
<p>EDO1.2 To facilitate and encourage the establishment of business, technology and industrial uses, which are considered compatible with surrounding uses, on suitably zoned sites and through the provision of appropriate infrastructure within the town.</p>			<p>W1, W2, W3, B1, B2, B3, S1, S2, C1, L1</p>	<p>P1,A1, A2, A3</p>
<p>EDO1.3 To ensure that where business/enterprise, technology or light industry uses are proposed adjacent to residential areas or community facilities, that suitable buffer zones are provided as well as adequate screening in the form of planting and landscaping.</p>			<p>B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, A1, A2, A3, C1</p>	<p>L1, P1</p>
<p>EDO1.4 To provide for and facilitate the expansion of enterprise and employment uses at Clane Business Park in an orderly and plan led manner.</p>	<p>B1, B4</p>		<p>B2, B3, S1, S2, W1, W2, W3, W4, A1, A2, A3, C1, L1</p>	<p>P1</p>
<p>EDO1.5 To ensure that development on the 'Business & Technology' zoned lands situated on the Celbridge Road (R403) provide a high quality design which acknowledges the prominent location on a primary approach road into Clane.</p>			<p>B1, B2, B3, S1, S2, W1, W2, W3, W4, M1, M2, C1</p>	<p>B4, L1, P1</p>
<p>Proposed Policies & Objectives Non-Conforming Uses</p>				
<p>Policy ED2 - Non Conforming Uses It is the policy of the Council, where commercial and industrial enterprises exist as non-conforming but long-established uses, to support their continued operation and reasonable</p>			<p>B1, B2, B3, B4, S1, S1, C1, L1, M1, M2, W1, W2, W3, W4,A3, P1, A1, A2</p>	

expansion, in accordance with the proper planning and sustainable development of the area.					
<p>EDO2.1 To support the continued operation and reasonable development of existing non-conforming uses, provided they do not:</p> <ul style="list-style-type: none"> • result in loss of amenity to adjoining properties, • cause adverse impact on the environment, • cause adverse impact on the visual amenity or character of the area, or • inhibit the development of adjoining land in conformance with its land use zoning objective. 			B1, B2, B3, B4, S1, S1, C1, L1, M1, M2, W1, W2, W3, W4, A3, P1, A1, A2	L1, B1, B2	
Proposed Policies & Objectives Walking and Cycling					
<p>Policy MT1 - Walking and Cycling It is the policy of the Council to provide an enhanced pedestrian and cycle network in Clane and secure filtered/full permeability in all new housing areas and in existing areas where possible.</p>			B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, M1, M2, C1, L1	P1, A1, A2, A3	
<p>MTO1.1 To secure the implementation of walking and cycling projects identified in Table 8.1 and on Map 8.1.</p>		B1, B4	B2, B3, S1, S2, W1, W2, W3, W4, M1, M2, C1, L1	P1, A1, A2, A3	
<p>MTO1.2 To maximise connectivity for pedestrians and cyclists in Key Development Areas and identify strategic links in existing areas in order to maximise access to local shops, schools,</p>		B1, B4	B2, B3, S1, S2, W1, W2, W3, W4, M1, M2, C1, L1	P1, A1, A2, A3, L1	

public transport services and other amenities.					
MTO1.3 To maximise direct cycle and pedestrian access to local shops and services, health facilities, schools, supermarkets, sports grounds and leisure facilities and places of work in all new developments.			B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, M1, M2, C1, L1	P1, A1, A2, A3	
MTO1.4 To require new housing developments to deliver filtered permeability to adjoining development in so far as is possible and, in the case of adjoining greenfield sites, to ensure the potential for such provision is addressed.			B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, M1, M2, C1, L1	P1, A1, A2, A3	
Policy MT2 - Public Transport It is the policy of the Council to support improvements to the public transport network serving Clane.			B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, M1, M2, C1, L1	P1, A1, A2, A3	
MTO2.1 To support and facilitate the provision of public transport infrastructure in collaboration with the National Transport Authority under the National Transport Authority's funding programmes.			B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, M1, M2, C1, L1	P1, A1, A2, A3	
Proposed Policies & Objectives					
Roads and Streets					
Policy MT3 Roads and Streets It is the policy of the Council to support improvements to the road and street network in Clane in order to provide connectivity and permeability throughout the town, enable access to new communities and to reduce through-traffic in the town centre.			B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, M1, M2, C1, L1	P1, A1, A2, A3	

Objective MTO3.1 To improve connectivity between the outer areas of the town through the planning and delivery of orbital connections between the existing radial road network.	A1, A2, A3	B1, B4	B2, B3, S1, S2, W1, W2, W3, W4, M1, M2, C1, L1	P1
MTO3.2 To secure implementation of the following road projects as indicated on Table 8.1 and Map 8.1, and to preserve identified road corridors free from development.	A1, A2, A3	B1, B4	B2, B3, S1, S2, W1, W2, W3, W4, M1, M2, C1, L1	P1
MTO3.3 To apply The Design Manual for Urban Roads and Streets, DECLG (2013) in the planning, design and construction of all roads and streets within the town.			B1, B2, B3, B4, S2, S1, W1, W2, W3, W4, A1, M1, M2, C1	P1,A1,A2, A3, L1
Proposed Policies & Objectives				
Car Parking				
Policy MT4 Car Parking It is the policy of the Council to manage the provision of parking to provide for the needs of residents, businesses and visitors to Clane town centre.			B1, B2, B3, B4, S1, S2, W1, W2, A1, A2, A3, W3, W4, M1, M2, C1, L1	P1
Objective MTO4.1 To apply the parking standards in the County Development Plan to all applications for planning permission in Clane.			B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, M1, M2, C1, L1, P1	
Proposed Policies & Objectives				
Strategic Road Network				
Policy MT5 Strategic Road Network It is the policy of the Council to plan for the long term needs of Clane in its regional context and provide additional capacity on strategic routes, in order to reduce congestion in the town and improve linkages to the national road network.	A1, A2, A3	B1, B4	B2, B3, S1, S2, W1, W2, W3, W4, A1, A2, A3, M1, N2, C1, L1	P1

MT05.1 To investigate the feasibility of providing a cross-Liffey route to the south-east of the town, with the aim of providing an alternative route which relieves pressure on Alexandra Bridge, and to preserve the emerging route free from development.	B1, B2, B4, W1		W2, W3, W4, A1, A2, A3	B3
MT05.2 To support the long term provision of a Leinster outer orbital route from Drogheda to the Naas/ Newbridge area.	A1, A2, A3, L1	B1, B2, B4, S1, W2, W3, C1	B3, S2, W1, W4	P1
Proposed Policies & Objectives				
Water Supply & Wastewater				
Policy I1 - Water Supply & Wastewater It is the policy of the Council to work in conjunction with Irish Water to protect existing water and wastewater infrastructure in Clane, to maximise the potential of existing capacity in the town and to ensure infrastructure is provided in tandem with development.			A1, A2, A3, B3, S1, S2, W4, C1, L1	B1, B2, B4, P1, W1, W2, W3, M1, M2
Objectives:				
IO1.1 To work in conjunction with Irish Water to protect, manage and optimise water supply and wastewater networks in Clane.			A1, A2, A3, B3, S1, S2, W4, C1, L1	B1, B2, B4, P1, W1, W2, W3, M1, M2
IO1.2 To work in conjunction with Irish Water to promote the ongoing upgrade and expansion of water supply and wastewater services to meet the future needs of Clane.			A1, A2, A3, B3, S1, S2, W4, C1, L1	B1, B2, B4, P1, W1, W2, W3, M1, M2
IO1.3 To support Irish Water in delivering key water supply and wastewater projects relevant to Clane, including contract 2B of the ULVRSS comprising:		B1, B2, B4	B3, A1, A2, A3, C1, L1	W1, W2, W3, M1, M2

<ul style="list-style-type: none"> An upgraded pumping station at Abbeylands Clane A new 300mm rising mains between Clane and Sallins Upgraded gravity sewers on the Prosperous Road and Ballinagappa Road and new/upgraded sewers within Clane town centre. 					
IO1.4 To ensure that new development on zoned land is subject to a requirement for a connection agreement from Irish Water.			S1, S2, S1, W1, W2, W3, W4, A1, A2, A3, C1, L1	W1,W2,W3,M1,M2, B1, B2, B3, B4,	
Proposed Policies & Objectives Surface Water & Groundwater					
Policy I2 – Surface Water & Groundwater It is the policy of the Council to maintain and enhance the existing surface water drainage systems in Clane and to protect surface and ground water quality in accordance with the Water Framework Directive.			A1, A2, A3, B3, W1, W2, W3,M2	W4, P1,B1, B2, B4, M1	
IO2.1 To carry out surface water infrastructure improvement works as required			A1, A2, A3, B3, W1, W2, W3, M2	W4, P1, B1, B2, B4, M1	
IO2.2 To incorporate Sustainable Urban Drainage Systems (SUDS) as part of all plans and planning schemes in Clane.			A1, A2, A3, C1, L1, S2	B1, B2, B4, P1, W1, W2, W3, W4, M1, M2	
IO2.3 To maintain, improve and enhance surface waters and groundwater in Clane and their associated habitats and species including fisheries and particular Annex II listed species in accordance with the Eastern River Basin District River Basin			A1, A2, A3, C1, L1, S2	B1, B2, B4, P1, W1, W2, W3, W4, M1, M2	

Management Plan and in conjunction with the EPA.				
Proposed Policies & Objectives Flood Risk Management				
Policy I3 – Flood Risk Management It is the policy of the Council to manage flood risk in Clane in conjunction with the OPW and in accordance with the requirements of the Planning System and Flood Risk Management Guidelines for Planning Authorities (2009) and circular PL02/2014 (August 2014).			B1, B2, B3, B4, A2, A3, L1, S1, S2, W1, W2, W3, W4	P1, A1
IO3.1 To ensure development proposals within the areas outlined on Map 9.1 are the subject of Site-Specific Flood Risk Assessment, appropriate to the nature and scale of the development being proposed.			B1, B2, B3, B4, A1, A2, A3, S1, S2, W1, W2, W3, W4	P1,A1
IO3.2 To support and co-operate with the OPW in delivering the Eastern CFRAM Programme applicable to Clane.			B1, B2, B3, B4, A1, A2, A3, S1, S2, W1, W2, W3, W4, C1, L1	P1
Proposed Policies & Objectives Energy & Communications				
Policy I4 – Energy & Communications It is the policy of the Council to promote and facilitate the development and renewal of energy and communications networks in Clane, while protecting the amenities of the town.			B1, B2, B3, B4, A1, A2, A3, S1, S2, W1, W2, W3, W4, C1,	P1, A1
Objective IO4.1 To support and facilitate the provision of telecommunications infrastructure, including broadband,in Clane, subject to safety and amenity requirements.		C1	B1, B2, B3, B4, A1, A2, A3, S1, S2, W1, W2, W3, W4, C1,	P1

IO4.2 To seek the undergrounding of all electricity, telephone and television cables in the town.			B1, B2, B3, B4, S1, S2, W1, W2, A1, A2, A3, W3, W4, M1, M2, P1	L1			
IO4.3 To discourage a proliferation of above ground utility boxes in the town and to seek screening measures in conjunction with the provision of such structures.			B1, B2, B3, B4, S1, S2, W1, W2, A1, A2, A3, W3, W4, M1, M2, C1, P1	L1			
Proposed Policies & Objectives Pollution and Environmental Services							
Policy I5: Pollution and Environmental Services It is the policy of the Council to protect environmental quality in Clane through the implementation of European, national and regional policy and legislation relating to air quality, light pollution and noise pollution.				B1, B2, B3, B4, S1, S2, W1, W2, A1, A2, A3, W3, W4, M1, M2, C1, P1, L1			
Objective IO5.1 To adequately maintain recycling facilities and to secure the provision of additional facilities, as required, including in conjunction with development.			B1, B2, B3, B4, S1, S2, W1, W2, A1, A2, A3, W3, W4, M1, M2, C1, L1	P1			
Proposed Policies & Objectives Built Heritage							
Policy H1 - Built Heritage It is the policy of the Council to conserve and protect buildings, structures and sites contained in the Record of Protected Structures and to carefully consider any proposals for development that would affect the special character or appearance of a Protected Structure including its historic curtilage, both directly and indirectly.			B1, B2, B3, B4, S1, S2, W1, W2, A1, A2, A3, W3, W4, M1, M2, L1	C1, P1			

HO1.1 To ensure the protection of all structures (or parts of structures) and the immediate surroundings including the curtilage and attendant grounds of structures contained in the Record of Protected Structures.			B1, B2, B3, B4, S1, S2, W1, W2, A1, A2, A3, W3, W4, M1, M2, L1	C1, P1
HO1.2 To ensure that all development proposals that affect a Protected Structure and their setting including proposals to extend, alter or refurbish any Protected Structure are sympathetic to its special character and integrity and are appropriate in terms of architectural treatment, character, scale and form. All such proposals shall be consistent with the principles of conservation best practice set out in the Architectural Heritage Guidelines for Planning Authorities, DAHG, 2011.			B1, B2, B3, B4, S1, S2, W1, W2, A1, A2, A3, W3, W4, M1, M2, L1	C1, P1
HO1.3 To encourage the protection and retention of vernacular heritage and to ensure that development proposals are sympathetic to the special character of vernacular structures.			B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, A1, A2, A3, M1, M2,	C1, P1, L1
HO1.4 To support the actions and objectives of the Kildare County Heritage Plan.			B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, A1, A2, A3, M1, M2,	C1, P1, L1
HO1.5 To conserve and enhance the extant historic designed landscapes and promote the conservation of their character, both built and natural.			B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, A1, A2, A3, M1, M2,	C1, P1, L1
Proposed Policies & Objectives Archaeology				

<p>Policy H2 - Archaeology It is the policy of the Council to manage development in a manner that protects and conserves the Archaeological Heritage of the County and to seek to avoid adverse impacts on sites, monuments, features or objects of significant historical or archaeological interest.</p>			<p>B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, A1, A2, A3, M1, M2,</p>	<p>C1, P1, L1</p>	
<p>HO2.1 To protect archaeological heritage, including previously unknown sites, features and objectives, in accordance with the recommendations of the Framework and Policies for the Protection of Archaeological Heritage, DAHGI, 1999 or any superseding national policy document.</p>			<p>B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, A1, A2, A3, M1, M2,</p>	<p>C1, P1, L1</p>	
<p>HO2.2 To protect and enhance sites listed in the Record of Monuments and Places.</p>			<p>B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, A1, A2, A3, M1, M2,</p>	<p>C1, P1, L1</p>	
<p>HO2.3 To ensure that development in the vicinity of a Record Monument or Area of Archaeological Potential does not detract from the setting of the site, monument, feature or object.</p> <p>Planning applications for development within the Zone of Archaeological Potential and in proximity to recorded archaeology will require an Archaeological Impact Assessment. An archaeological assessment shall establish the extent of archaeological material associated with the monument or site and define an appropriate buffer to</p>			<p>B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, A1, A2, A3, M1, M2,</p>	<p>C1, P1, L1</p>	

preserve the setting and visual amenity of the site.					
Proposed Policies & Objectives					
Protection of Habitats					
Policy H3 – Protection of Habitats It is the policy of the Council to seek to ensure that to support the protection of species and habitats that are designated protected under the Wildlife Acts 1976 and 2000, the Birds Directive 1979 and the Habitats Directive 1992 as well as areas of high local biodiversity value and to ensure developments with potential to impact the integrity of the Natura 2000 network will be subject to Appropriate Assessment			S2, W2, W3, W4, A1, A2, A3, M1, M2, C1, L1	B1, B2, B3, B4, S1, W1	
H03.1 To prevent development that would adversely affect rare and threatened species in non-designated areas.			S1, S2, W2, W3, W4, A1, A2, A3, M1, M2, C1, L1	B1, B2, B3, B4, W1	
H03.2 To preserve the amenity of the River Liffey Valley including its landscape and biodiversity value. In this regard, planning applications must identify all ecological habitats and corridors present in a proposed development site, and demonstrate that any habitat or corridor affected by the proposal is not of local importance, or that its loss will be offset, should the application be granted.			S1, S2, W2, W3, W4, A1, A2, A3, M1, M2, C1, L1	B1, B2, B3, B4, W1	
H03.3 To protect and conserve the integrity of soils that support the rich biodiversity and Ecological networks in Clane.			S1, S2, W2, W3, W4, A1, A2, A3, M1, M2, C1, L1	B1, B2, B3, B4, W1	

<p>HO3.4 To ensure an Appropriate Assessment, in accordance with Article 6(3) and Article 6(4) of the Habitats Directive and with DEHLG guidance (2009), is carried out in respect of any plan or project not directly connected with or necessary to the management of a Natura 2000 site to determine the likelihood of the plan or project having a significant effect on a Natura 2000 site, either individually or in combination with other plans or projects and to ensure that projects which may give rise to significant cumulative, direct, indirect or secondary impacts on Natura 2000 sites will not be permitted (either individually or in combination with other plans or projects) unless for reasons of overriding public interest</p>			<p>S1, S2, W2, W3, W4, A1, A2, A3, M1, M2, C1, L1</p>	<p>B1, B2, B3, B4, W1</p>	
<p>HO3.5 To protect, conserve and enhance, wherever possible, wildlife habitats and species of local importance, and to give appropriate consideration to maintaining existing local ecological corridors and linkages not otherwise protected by legislation.</p>			<p>S1, S2, W2, W3, W4, A1, A2, A3, M1, M2, C1, L1</p>	<p>B1, B2, B3, B4, W1</p>	
<p>Proposed Policies & Objectives Amenity</p>					
<p>Policy H4 – Amenity It is the policy of the Council to seek public realm improvements in public areas, in order to improve the amenities of these locations.</p>			<p>B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, A1, A2, A3,</p>	<p>L1, P1</p>	

<p>Objectives</p> <p>HO4.1 To secure the improvement of the visual quality of public areas, including open spaces and the approach roads to the town, through planting, high quality boundary treatment, welcoming signage, footpath improvements and traffic calming, where appropriate.</p>			B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, A1, A2, A3,	L1, P1		
<p>HO4.2 To resist development proposals and unnecessary signage which detract from visual amenity or the visual appearance of approach roads to the town.</p>			B1, B2, B3, B4, S1, S2, W1, W2, W3, W4, A1, A2, A3,	L1, P1		
<p>HO4.3 To apply the provisions of the Derelict Sites Act 1990 in securing the regeneration of derelict sites which are detracting from the amenities of the town.</p>			B1, B2, B3, B4, S2, W1, W2, W3, W4, A1, A2, A3,	P1, S1, L1		
<p>Proposed Policies & Objectives</p> <p>Green Infrastructure</p>						
<p>Policy GI1 – Green Infrastructure</p> <p>It is the policy of the Council to protect, enhance and further develop the Green Infrastructure network in Clane and to strengthen links to the wider regional network.</p>			B1, B2, B4, S2, W1, W2, W3, W4, A1, A2, A3,	P1, S1, B3		
<p>Objective GIO1.1 To reduce fragmentation of the Green Infrastructure network and strengthen ecological links within Clane and to the wider regional network.</p>			B1, B2, B4, S2, W1, W2, W3, W4, A1, A2, A3,	P1, S1, B3		
<p>GIO1.2 To integrate Green Infrastructure as an essential component of all new developments and restrict development that would fragment or prejudice the Green Infrastructure Network.</p>			B1, B2, B4, S2, W1, W2, W3, W4, A1, A2, A3,	P1, S1, B3		

GIO1.3 To seek to protect and enhance the biodiversity value and ecological function of the Green Infrastructure network.			B1, B2, B4, S2, W1, W2, W3, W4, A1, A2, A3,	P1, S1, B3	
GIO1.4 To ensure key trees, woodlands and hedgerows identified, and the linkages they provide to larger areas of green infrastructure and the wider countryside, are retained where appropriate and integrated into the design of new developments.			B1, B2, B4, S2, W1, W2, W3, W4, A1, A2, A3,	P1, S1, B3	
GIO1.5 To promote a network of paths and cycle tracks to enhance accessibility to the Green Infrastructure network, while ensuring that the design and operation of the routes responds to the ecological protection needs of each site.			B1, B2, B4, S2, W1, W2, W3, W4, A1, A2, A3,	P1, S1, B3	
GIO1.6 To maintain a biodiversity protection zone of 80 metres from the top bank of the River Liffey and of not less than 10 metres from the top bank of smaller watercourses in Clane, with the full extent of the protection zone to be determined on a case by case basis by the Planning Authority, based on site specific characteristics and sensitivities. Strategic green routes and trails will be open for consideration within the biodiversity protection zone, subject to appropriate safeguards and assessments.			B1, B2, B4, S2, W1, W2, W3, W4, A1, A2, A3,	P1, S1, B3	
GIO1.7 To promote best practice with respect to minimising the spread of, and eradicating, invasive species, in accordance with the provisions of Section 13.8.3 of the County Development Plan.			B1, B2, B4, S2, W1, W2, W3, W4, A1, A2, A3,	P1, S1, B3	

Proposed Policies & Objectives Open Spaces					
Policy OS1 - It is the policy of the Council to provide for a hierarchy of high quality multi-functional public open spaces within Clane, and to reserve and protect such spaces through the appropriate zoning of lands.		B1	B1, B2, B4, S1, S2, W1, W2, A1, A2, A3, W3, W4, M1, M2, C1, L1,	P1, B3	
OSO1.1 To secure the provision of a hierarchy of open spaces able to cater for a range of functions, to meet the needs of the population of Clane		B1	B1, B2, B4, S1, S2, W1, W2, A1, A2, A3, W3, W4, M1, M2, C1, L1,	P1, B3	
OSO1.2 To protect lands zoned Amenity and Open Space and Strategic Open Space on Map 13.1 for a variety of passive and active uses			B1, B2, B3, B4, S1, S2, W1, W2, A1, A2, A3, W3, W4, M1, M2, C1, L1, P1		
OSO1.3 To secure the development of a Liffey walkway on lands to the north and south of the river and to ensure protection of the river corridor environment.		B1, B2, B4, W1	B4, S1, S2, W1, W2, A1, A2, A3, W3, W4, M1, M2, C1,	P1, L1	
OSO1.4 To secure the provision of a public park (> 16 ha) on the eastern boundary of Clane on lands that are located between the River Liffey and the Dublin Road.		B1, B2, B4, W1	B4, S1, S2, W1, W2, A1, A2, A3, W3, W4, M1, M2, C1,	P1, L1	
OSO1.5 To secure the delivery of a neighbourhood park in conjunction with development at KDA 1, including a multi-use games area.		B1	B1, B2, B4, S1, S2, W1, W2, A1, A2, A3, W3, W4, M1, M2, C1, L1,	P1, B3	
OSO1.6 To provide a range of opportunities for active and passive recreation within public open spaces.		B1	B1, B2, B4, S1, S2, W1, W2, A1, A2, A3, W3, W4, M1, M2, C1, L1,	P1, B3	
OSO1.7 To ensure that the provision of open space for all new developments seeks to incorporate and enhance any		B1	B1, B2, B4, S1, S2, W1, W2, A1, A2, A3, W3, W4, M1, M2, C1, L1,	P1, B3	

existing landscape features such as hedgerows and trees within the receiving environment					
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9 Mitigation Measures

9.1 Introduction

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

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

9.2 Mitigation Measures

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

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

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

- **Objective HCO1.1**
To include of the *Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities* in standards and guidance for new residential developments.
- **Objective GIO1.4**
To consider incorporating the following text in green: To ensure **key trees, woodlands and hedgerows** identified, and the linkages they provide to larger areas of green infrastructure and the wider countryside, are retained where appropriate and integrated into the design of new developments.
- **Objectives OSO1.3**
Consider incorporating the following text in green: To secure the development of a Liffey walkway on lands to the north and south of the river **and to ensure protection of the River Corridor environment**

Consider adding the following Objective as **OSO1.7: To ensure that the provision of open space for all new developments seeks to incorporate and enhance any existing landscape features such as hedgerows and trees within the receiving environment.**

- **Suggested additional objective**

In order to strengthen landscape protective measures, consider adding the following objective: **HO1.5: To conserve and enhance the extant historic designed landscapes and promote the conservation of their character, both built and natural.**

- **Policy H3 – Protection of Habitats**

In order to strengthen this policy consider amending to: **It is the policy of the Council to support the protection of species and habitats that are designated under the Wildlife Acts 1976 and 2000, the Birds Directive 1979, the Habitats Directive 1992 as well as areas of high local biodiversity value and to ensure developments with potential to impact the integrity of the Natura 2000 network will be subject to Appropriate Assessment.**

Consider adding the following objective as a protective measure for soils: **HO3.2: To protect and conserve the integrity of soils that support the rich biodiversity and ecological networks in Clane.**

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

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

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

In general terms, all proposals for development will be required to have due regard to the environmental considerations outlined in the Kildare County Development Plan 2017-2023.

At the project-level, Environmental Impact Assessment and Habitat Directive Assessment stage, detailed mitigation measures for all projects will be developed. For example, the proposed provision of a Leinster outer orbital route from Drogheda to the Naas/Newbridge area will identify a suite of measures aimed at reducing the adverse impacts of the scheme on environmental topics such as Noise, Archaeology and Cultural Heritage, Architectural Heritage and Landscape & Visual etc.

Table 9.1 Mitigation Measures

	Potential Negative Impact	Potentially Uncertain Impact	Mitigation
Proposed Policies & Objectives			
Objective MTO3.1 To improve connectivity between the outer areas of the town through the planning and delivery of orbital connections between the existing radial road network.	A1, A2, A3,	B1, B4,	<p>Potential negative impacts on air pollution and noise (A1, A2, A3) will be mitigated by Policy I5: Pollution and Environmental Services of the LAP</p> <p>Potential uncertain impacts on habitats and biodiversity (B1, B4) will be mitigated by Policy H3, Objective HO3.1, Objective IO2.3, Objective HO3.2, Objective HO3.2 and Objective HO3.5.</p>
MTO3.2 To secure implementation of the following road projects as indicated on Table 8.1 and Map 8.1, and to preserve identified road corridors free from development.	A1, A2, A3, S1	B1, B4,	<p>Potential negative impacts on air pollution and noise (A1, A2, A3) will be mitigated by Policy I5: Pollution and Environmental Services of the LAP.</p> <p>Potential uncertain impacts on soil (S1) will be mitigated by Objective HO3.3.</p> <p>Potential uncertain impacts on Biodiversity (B1, B4) will be mitigated by Policy H3, Objective HO3.1, Objective IO2.3, Objective HO3.2, Objective HO3.2 and Objective HO3.5.</p>
Policy MT5 Strategic Road Network It is the policy of the Council to plan for the long term needs of Clane in its regional context and provide additional capacity on strategic routes, in order to reduce congestion in the town and improve linkages to the national road network.	A1, A2, A3	B1, B4,	<p>Potential negative impacts on air pollution and noise will be mitigated by Policy I5: Pollution and Environmental Services of the LAP.</p> <p>Potential uncertain impacts on Biodiversity (B1, B4) will be mitigated by Policy H3, Objective HO3.1, Objective IO2.3, Objective HO3.2, Objective HO3.2 and Objective HO3.5.</p>

<p>MT05.1 To investigate the feasibility of providing a cross-Liffey route to the south-east of the town, with the aim of providing an alternative route which relieves pressure on Alexandra Bridge.</p>	<p>B1, B2, B4, W1</p>		<p>Potential negative impacts on Biodiversity (B1, B2, B3, B4) will be mitigated by Policy H3, Objective HO3.1, Objective IO2.3, Objective HO3.2, Objective HO3.2 and Objective HO3.5.</p> <p>Potential negative impacts on W1 will be mitigated by Objective GIO1.6 on Green Infrastructure</p>
<p>MT05.2 To support the long term provision of a Leinster outer orbital route from Drogheda to the Naas/Newbridge area.</p>	<p>A1, A2, A3, L1</p>	<p>B1, B2, B4, S1, W2, W3, C1</p>	<p>Potential negative impacts on air pollution and noise (A1, A2, and A3) will be mitigated by Policy I5: Pollution and Environmental Services of the LAP.</p> <p>Potential uncertain impacts on Biodiversity (B1, B2, B3, and B4) will be mitigated by Policy H3, Objective HO3.1, Objective IO2.3, Objective HO3.2, Objective HO3.2 and Objective HO3.5.</p> <p>Potential uncertain impacts on soil (S1) will be mitigated by Objective HO3.3.</p> <p>Potential uncertain impacts on Cultural Heritage (C1) will be mitigated by Policy H2 – Archaeology and Objective HO2.1, HO2.2, HO2.3.</p> <p>Potential uncertain impacts on Water (W2 and W3) will be mitigated by Policy I2 on Surface water and Groundwater and Objective IO2.1, IO2.2 and IO2.3</p>
<p>IO1.3 To support Irish Water in delivering key water supply and wastewater projects relevant to Clane, including contract 2B of the ULVRSS comprising:</p> <ul style="list-style-type: none"> • An upgraded pumping station at Abbeylands Clane 		<p>B1, B2, B4</p>	<p>Potential uncertain impacts on Biodiversity (B1, B2, B4) will be mitigated by Policy H3, Objective HO3.1, Objective IO2.3, Objective HO3.2, Objective HO3.2 and Objective HO3.5.</p>

<ul style="list-style-type: none"> • A new 300mm rising mains between Clane and Sallins • Upgraded gravity sewers on the Prosperous Road and Ballinagappa Road and new/upgraded sewers within Clane town centre. 			
<p>Objective IO4.1 To support and facilitate the provision of telecommunications infrastructure in Clane, subject to safety and amenity requirements.</p>		C1	Potential uncertain impacts on Cultural Heritage (C1) will be mitigated by Policy H2 – Archaeology and Objective HO2.1, HO2.2, HO2.3.
<p>MTO1.1 To secure the implementation of walking and cycling projects identified in Table 8.1 and on Map 8.1.</p>		B1, B4	Potential uncertain impacts on Biodiversity (B1, B2, B4) will be mitigated by Policy H3, Objective HO3.1, Objective IO2.3, Objective HO3.2, Objective HO3.2 and Objective HO3.5.
<p>MTO1.2 To maximise connectivity for pedestrians and cyclists in Key Development Areas and identify strategic links in existing areas in order to maximise access to local shops, schools, public transport services and other amenities.</p>		B1, B4	Potential uncertain impacts on Biodiversity (B1, B2, and B4) will be mitigated by Policy H3, Objective HO3.1, Objective IO2.3, Objective HO3.2, Objective HO3.2 and Objective HO3.5.
<p>EDO1.4 To provide for and facilitate the expansion of enterprise and employment uses at Clane Business Park in an orderly and plan led manner.</p>		M1	Potential uncertain impacts on Material Assets (M1) will be protected by Policy I1 - Water Supply & Wastewater and Objective IO1.1
<p>Policy OS1 - It is the policy of the Council to provide for a hierarchy of high quality multi-functional public open spaces within Clane, and to reserve and protect such spaces through the appropriate zoning of lands.</p>		B1, B2	Potential uncertain impacts on Biodiversity (B1, B2) will be mitigated by Policy H3, Objective HO3.1, Objective IO2.3, Objective HO3.2, Objective HO3.2 and Objective HO3.5.

OSO1.1 To secure the provision of a hierarchy of open spaces able to cater for a range of functions, to meet the needs of the population of Clane		B1, B2	Potential uncertain impacts on Biodiversity (B1, B2) will be mitigated by Policy H3, Objective HO3.1, Objective IO2.3, Objective HO3.2, Objective HO3.2 and Objective HO3.5.
OSO1.3 To secure the development of a Liffey walkway on lands to the north and south of the river and to ensure protection of the river corridor environment.		B1, B2, B4, W1	Potential uncertain impacts on Biodiversity and water (B1, B2, B4 and W1) will be mitigated by Policy H3, Objective HO3.1, Objective IO2.3, Objective HO3.2, Objective HO3.2 and Objective HO3.5.
OSO1.4 To secure the provision of a public park (> 16 ha) on the eastern boundary of Clane on lands that are located between the River Liffey and the Dublin Road.		B1, B2, B4, W1	Potential uncertain impacts on Biodiversity and water (B1, B2, B4 and W1) will be mitigated by Policy H3, Objective HO3.1, Objective IO2.3, Objective HO3.2, Objective HO3.2 and Objective HO3.5.
OSO1.5 To secure the delivery of a neighbourhood park in conjunction with development at KDA 1, including a multi-use games area.		B1, B2	Potential uncertain impacts on Biodiversity (B1, B2, B4) will be mitigated by Policy H3, Objective HO3.1, Objective IO2.3, Objective HO3.2, Objective HO3.2 and Objective HO3.5.
OSO1.6 To provide a range of opportunities for active and passive recreation within public open spaces.		B1, B2	Potential uncertain impacts on Biodiversity (B1, B2) will be mitigated by Policy H3, Objective HO3.1, Objective IO2.3, Objective HO3.2, Objective HO3.2 and Objective HO3.5.
OSO1.7 To ensure that the provision of open space for all new developments seeks to incorporate and enhance any existing landscape features such as hedgerows and trees within the receiving environment		B1, B2	Potential uncertain impacts on Biodiversity (B1, B2) will be mitigated by Policy H3, Objective HO3.1, Objective IO2.3, Objective HO3.2, Objective HO3.2 and Objective HO3.5.

10 Monitoring Programme

10.1 Introduction

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

10.2 Monitoring Indicators

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

10.3 Sources

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

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

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

Table 10.1 Monitoring Environmental Indicators

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
BIODIVERSITY, FLORA & FAUNA	B1: Conservation and enhancement of diversity of habitats and protected species avoiding irreversible losses	B1: Compliance with conservation objectives of all habitats and species protected under national and international legislation such as the Wildlife Acts 1976 and 2000, the Birds Directive 1979, the Habitats Directive 1992	Kildare County Council, National Parks & Wildlife, Dept of Housing, Planning, Community and Local Government.	Monitoring of environmental likely significant effects on a project by project basis as particular elements of the plan are developed and advanced in accordance with national and international legislation. National Monitoring Report under Article 12 of the Birds Directive. (c. every 6 years).
	B2: Improvement of habitats, where possible	B2: Avoid significant impacts on relevant habitats, species, Environmental features or other sustaining resources in designated sites including Wildlife Sites resulting from Development provided for by the Plan.	Kildare County Council, National Parks & Wildlife, Dept of Housing, Planning, Community and Local Government,	Monitoring of environmental likely significant effects on measure by measure basis as particular elements of the plan are developed and advanced.
	B3: Level of sustainable public access to wildlife flora and fauna at appropriate locations	B3: Greater access to areas of wildlife flora and fauna by general public without adversely impacting natural habitats.	Kildare County Council, National Parks & Wildlife, Dept of Housing, Planning, Community and Local Government,	Monitoring of environmental effects of wildlife in areas open to public access.
	B4: Conservation of designated wildlife sites and protected species, and	B4: No significant impacts on the protection of species listed on Schedule 5 of the Wildlife Act 1976	Kildare County Council, National Parks & Wildlife, Dept of Housing, Planning, Community and Local Government.	Monitoring of environmental likely significant effects on measure by measure basis as

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
	associated ecological corridors/ linkages			particular elements of the plan are developed and advanced.
POPULATION	P1: Level of appropriate community facilities, amenities and infrastructure to support new and existing developments within and surrounding the village centre	P1: Delivery of appropriate community facilities, amenities and infrastructure in line with new development.	Kildare County Council	On-going regular monitoring supplemented by data arising from the development and delivery of the plan (every c.2 years).
SOILS INCLUDING GEOLOGY	S1: Quality of soil	S1: Maximisation the sustainable reuse and regeneration of brownfield sites leading to higher efficiency of land utilisation, sustainable mobility and a reduction in the need to develop greenfield lands;	Kildare County Council, EPA	Internal monitoring of likely significant environmental effects on a project by project basis where potential for interaction with historical landfill sites occur. Review of CORINE mapping (every c.5 years).
	S2: Sustainable re-use of brownfield lands where possible	S2: Maximisation the sustainable reuse and regeneration of brownfield sites leading to higher efficiency of land utilisation, sustainable mobility and a reduction in the need to develop greenfield lands;	Kildare County Council,	Monitoring of environmental likely significant effects on a project by project basis as particular elements of the plan are developed and advanced.
WATER	W1: Status of aquatic ecosystems, their water needs, terrestrial ecosystems	W1: Not to cause deterioration aquatic	Kildare County Council, EPA	Monitoring of water quality in accordance with the Water

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
	and wetlands directly depending on the aquatic ecosystems	ecosystems, terrestrial ecosystems and wetlands.		Framework Directive. (every c.2 years)
	W2: Quality of available water resources	W2: Improve Q value status for river bodies in plan area and zone of influence	Kildare County Council, EPA	On-going regular monitoring of water quality in accordance with the Water Framework Directive supplemented by data arising from development and delivery of measures within the Plan.
	W3: Prevent pollution and contamination of ground water by adhering to aquifer protection plans.	W3: No reductions in Q values in relevant watercourses. No change or improvement in groundwater quality associated with development. % increase in waters achieving 'good status' as defined in the WFD.	Kildare County Council, EPA	On-going regular monitoring of groundwater quality in accordance with the Water Framework Directive supplemented by data arising from development and delivery of measures within the Plan.
	W4: Level of flooding occurring in newly built developments. Continued compliance with Flood Risk Guidelines for Planning Authorities.	W4: No development in Flood Zone A. Developments proposed within Flood Risk Zones to comply with Floods Directive	Kildare County Council, EPA	Completion of a Strategic Flood Assessment as part of Local Area Plan making and on-going regular monitoring of flood risk in accordance with flood Risk Guidelines on a project by project basis.

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
		Identify SUDS in all new developments		
AIR QUALITY, CLIMATE & NOISE	A1: Facilitate measures to reduce all forms of Air Pollution	A1: Compliance with Ambient Air Quality and Cleaner Air for Europe (CAFÉ) Directive and associated legislation	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).
	A2: Minimise emissions of greenhouse gases to contribute to a reduction and avoidance of human-induced global climate change.	A2: To contribute towards compliance with legislative air quality limits and target values.	Kildare County Council, EPA	
	A3: Protect human health through minimising the risk of noise and vibrations from traffic, industrial processes and extractive industry.	A3: Monitoring of noise and vibrations from selected nearby locations.	Kildare County Council, EPA	On-going regular monitoring supplemented by data arising from development (every c.2 years).
MATERIAL ASSETS	M1: Adverse effects arising from wastewater discharges, % compliance in wastewater discharges from municipal treatment.	M1: Ensuring wastewater is appropriately treated before it is discharged to the environment thereby reducing pollution in Rivers and lakes.	Kildare County Council, EPA.	On-going regular monitoring supplemented by data arising from development.
	M2: Occasions from contaminated drinking water/ boil water notices	M2: Free from contamination drinking water.	Kildare County Council,	On-going regular monitoring

Environmental Component	Indicators	Targets	Responsibility	Frequency / Timing
CULTURAL HERITAGE	C1: Protection of cultural heritage including the built environment and settings; archaeological (recorded and unrecorded monuments), architectural (Protected Structures, Architectural Conservation Areas, vernacular buildings, materials and urban fabric) and manmade landscape features.	C1: Protect from infringement on Entries to the Record of Protected Structures, architectural conservation areas, archaeological (recorded and unrecorded monuments) arising from Implementation of part of the Plan.	Kildare County Council, Dept of Arts Heritage, Regional and Rural Affairs	Monitoring of Statutory Consultee inputs on environmental effects as particular elements of the LAP are developed and advanced.
LANDSCAPE	L1: Conservation status of valued natural and historic landscapes and their character and features within them	L1: Protection, where possible, of the county's landscapes which are most valuable, sensitive or have protected focal points and views.	Kildare County Council, private developers/ landowners	Monitoring of Statutory Consultee inputs on environmental effects as particular elements of the LAP are developed and advanced.

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

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

11 CONCLUSION

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

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

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

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

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

