

Graiguenamanagh LAP 2009

C o u n t y K i l k e n n y



Strategic Environmental Assessment

Statement

April 2009



Kilkenny County Council
Forward Planning



Kilkenny County Council
Forward Planning
County Hall, John Street
Kilkenny

Graiguenamanagh Local Area Plan 2009

STRATEGIC ENVIRONMENTAL ASSESSMENT

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1. Introduction

1.1 General Requirements

As required by Article 14I of the SEA Regulations 2004 (S.I. No. 436), this Statement sets out how the Strategic Environmental Assessment (SEA) process influenced the preparation of the Local Area Plan (LAP) for Graiguenamanagh, by summarising:

- How environmental considerations have been integrated into the LAP;
- How the environmental report and any submissions and observations received thereon in response to the public consultation, have been taken into account during the preparation of the programme;
- The reasons for choosing the plan in light of the other reasonable alternatives dealt with; and
- The measures decided upon to monitor the significant environmental effects of implementation of the plan.

2. How environmental considerations have been integrated into the LAP

2.1 Summary Approach

Environmental considerations were considered throughout the plan making process and integrated into the LAP according to the following stages:

Table 1: Summary SEA Process

Stage	Process
1.	Screening: Undertaken according to the environmental significance criteria contained in Annex II (2) of the SEA Directive.
2.	Scoping and Statutory Consultation: Screening Report and Issues Report submitted to designated environmental authorities.
3.	Environmental Assessment of the draft LAP: Ongoing during plan preparation and with preparation of initial SEA Report.
4.	Statutory Consultation on draft LAP and SEA Report: Draft LAP and initial SEA Report placed on public display for period of 6 weeks, and submitted to statutory environmental authorities. Public information evening. Appropriate Assessment (Openfield Ecological Services) prepared.
5.	Manager's Report on Submissions: Manager's Report prepared on submissions to Draft LAP and to initial SEA . Material Amendments published and SEA response to submissions published.
6.	Statutory Consultation on Amended draft LAP: Submissions and observations received following a further 5 weeks public display.

7.	Adoption of LAP: The Graiguenamanagh LAP was formally adopted at the meeting of the County Council on 16 th February 2009. The LAP and all relevant archived material is available on the County Council web site, and for inspection at the Planning Department, County Hall.
8.	SEA Statement: The final Environmental Report will be similarly available, together with this Environmental Statement.

2.2 Environmental Screening

An Environmental Screening exercise was undertaken to inform the preparation of the LAP, whereby the evolving content of the plan (as set out in an Issues Report) was assessed against the environmental significance criteria as contained in Annex II (2) of the SEA Directive.

The main environmental issues facing Graiguenamanagh as identified by the screening exercise comprised:

- The presence of designated biodiversity sites which may be subject to adverse impacts from future development in the town;
- A reduction in bio-diversity through the replacement of undesignated landscape features with artificial surfaces (e.g. through Greenfield development);
- A static or declining population with specific requirements for community, amenity and employment provision;
- A lack of accessible play spaces;
- Loss of soil resource through development of Greenfield sites;
- Deteriorating river water quality;
- Generally High groundwater vulnerability;
- Future development without appropriate wastewater infrastructure would result in further deterioration of water quality, and adverse impacts on biodiversity and drinking water supplies;
- Flooding of the River Barrow and its tributaries has become recurrent;
- No capacity in the water supply network;
- The town is mostly car-dependent – alternative modes of transport need to be promoted in order to safeguard air quality;
- Potential adverse impact on cultural heritage of the town; and
- Potential adverse impact on the landscape character of the town.

The SEA Screening Report determined that, although below the statutory threshold, an SEA would be necessary for Graiguenamangh due to:

- The scale of development likely to take place over the life of the plan, within the context of a plan that promotes sustainable development;
- The value and vulnerability of the plan area likely to be affected by implementation of the plan; and
- Areas of conservation sensitivity (natural and built heritage) within the area covered by the plan.

The Screening Report and Issues Report were submitted to the Department of Environment Heritage and Local Government (Development Applications Unit), the Department of Communications, Marine and Natural Resources (Coordination Unit), and the Environmental Protection Agency (Regional Inspectorate). The responses received are summarised in the SEA Environmental Report.

2.3 Environmental Assessment of the draft LAP

SEA Report

An initial Environmental Report (July 2008) was prepared to assess the likely significant effects of the draft LAP on the environment of implementing the plan, in accordance with Annex 1 of the Directive. The Report identified the following likely significant environmental effects:

Biodiversity and Flora and Fauna

- Reduction in habitats from greenfield development, and disruption of ecological networks (e.g. corridors and stepping stones); and
- Pollution of river from soil erosion, agricultural silage/slurry, industrial and municipal effluents.

Population and Human Health

- Development of additional residential units;
- Increased demand for retailing, services, leisure and community facilities and amenities;
- Increased demand for employment;
- Increased demand for transport and travel; and
- Impacts on the quality of drinking water sources can have the potential to impact upon human health (see Water Supply below).

Soil, Water, Air and Climatic Factors

- Contamination of soil from development that does not have adequate waste water infrastructure;
- Soil erosion resulting from construction works and resultant impact on water quality and fishery resources;
- Water quality problems with potential for significant adverse impact upon biodiversity, drinking water supplies and human health;
- Travel related emissions likely to continue to increase; and
- Air and climatic factors - (to be more appropriately assessed at regional level).

Material assets (includes waste water, drinking water and transport infrastructure)

- Development of additional lands will lead to increase in the demand for foul water and surface water drainage, with resultant potential contamination risks;
- Water quality problems with potential for significant adverse impact upon biodiversity, drinking water supplies and human health;
- Travel related emissions likely to continue to increase;

- Development of additional lands will increase the amount of local traffic;
- Increasing car ownership will contribute to a deterioration in the town centre environment; and
- Reliance on private transport will exclude certain sectors of the population and diminishes the role of public transport.

Cultural Heritage

- Possible adverse impact on sites of archaeological interest or their settings; and
- Possible degradation of buildings or townscapes of architectural interest.

Landscape

- Possible adverse impact upon the integrity of landscape resources; and
- Possible adverse impacts on scenic views to and from the town.

A range of possible mitigation measures were developed in order to address the likely significant effects of implementing the draft Plan policies and objectives.

Appropriate Assessment

In response to observations of the Development Applications Unit, a full Appropriate Assessment was undertaken (Openfield Ecological Services) to determine potential impacts on the cSAC.

Environmental Report

Further amendments were made to the initial SEA, undertaken as part of the Draft and subsequent Proposed Amendments to the LAP, in response to additional observations made by the EPA and the Development Applications Unit of DEHLG. The amendments were incorporated in the final SEA Environmental Report (March 2009).

The Environmental Report established a number of environmental objectives and indicators to be taken into account when assessing the effects of the proposed plan.

The policy and objectives of the draft LAP were appraised in a matrix format, informed by the environmental baseline and the descriptions of potential significant effects and proposed mitigation measures. Generally the content of the proposed plan was not found to conflict in any significant way with the objectives established for each of the environmental topics – refer Section 4.5 of SEA Report (Summary of Draft LAP Policy Assessment). Similarly the Proposed Amendments were not considered to result in significant adverse environmental impacts.

No strategically significant negative environmental effects had been identified as a result of the assessment process in relation to the proposed LAP for Graiguenamanagh, subject to compliance with the identified mitigation measures to be integrated as necessary into the Plan's policies and objectives. The five potentially significant negative effects identified by the Appropriate Assessment (relating to 'Loss of habitat within the SAC through Open Space designations', 'Discharge of pollutants into the Barrow river as a result of the

discharge of poorly treated sewage effluent’, ‘Discharge of pollutants in the Barrow river as a result of surface water run-off from new developments’, ‘Deterioration of water quality, habitat loss and bank erosion from increased recreational boat usage’ and ‘Impacts to Bat populations within old or derelict buildings that may be renovated’ were effectively mitigated through incorporating the recommendations by the Appropriate Assessment within the policy and objectives of the LAP.

Mitigation measures aimed at avoiding potential significant effects identified as part of the assessment process are as follows:

**Table 2:
The Plan’s Consideration and Incorporation of Environmental Considerations**

Biodiversity, Flora and Fauna		
<i>Potential significant effects</i>	<i>Proposed mitigation measures</i>	<i>Specific Policies and Objectives</i>
Reduction in habitats from greenfield development, and disruption of ecological networks (e.g. corridors and stepping stones).	<p>Specific LAP policies and objectives to protect, conserve and enhance Graiguenamanagh’s natural heritage and biodiversity.</p> <p>Proposed greenfield development on lands low in habitat diversity.</p> <p>Applicants to be encouraged to enhance existing networks or create new networks between local biodiversity areas where such opportunities exist.</p>	<p>Policy 1 Sustainability: ...importance of conserving and enhancing the quality of the built and natural environment.</p> <p>Policy 4 Natural Heritage & Biodiversity: (b) To protect and enhance wildlife habitats and landscape features.</p> <p>New development zonings confined to areas of Improved Agricultural Grassland of low ecological value (as defined by AA).</p> <p>Policy 25 Amenity and Open Space: ...to promote the enhancement and provision of open spaces and associated open space links.</p> <p>4.6.3 Ecology and Biodiversity Design layouts should aim to enhance and protect the biodiversity resources of the town.</p>
Loss of habitat within the River Barrow and River Nore cSAC through ‘open space’ designations.	<p>Designated ecological site outlines clearly delineated in the LAP.</p> <p>Incorporation of a suitable landscape buffer between new development areas and designated biodiversity sites zoned as Open Space within the draft LAP.</p> <p>Ensure that an Appropriate Assessment is carried out for any development likely to impact upon a cSAC.</p>	<p>Boundary of SAC is clearly shown on Map 2 (Natural Heritage).</p> <p>2.4 Natural Heritage and Biodiversity: The purpose of the cSAC is to ensure the ‘Biodiversity Conservation’ of the designated lands along the river corridor.</p> <p>Policy 3 The River Barrow and River Nore cSAC: Provisions (a) to (e).</p>
Discharge of pollutants into the River Barrow	Ensure that new or upgraded wastewater treatment plant is in	Policy 15 Sewerage Network: (a) Ensure the provision of necessary

through poorly treated sewage effluent.	place and operational prior to the opening of new residential or business areas within the town.	<p>sewerage facilities....and to prevent pollution. (c) Prohibit the connection to the sewerage system of any proposed development out of phase with the overall development of the town or where the existing services are committed for other development.</p> <p>Action of Policy 18: To continuously monitor water quality in the area to ensure all waters meet the Framework Directive of at least “good status” by 2015.</p>
Discharge of pollutants into the River Barrow through surface-water run-off from new developments.	Specific LAP policies and objectives to protect, conserve and enhance Graiguenamanagh's natural heritage and biodiversity.	<p>Policy 3: The River Barrow and River Nore cSAC (a) ...to provide for the protection of water and quality and the ecological integrity of the watercourse. (b) To assess all proposed developments (individually or in combination with other proposals, as appropriate), which are likely to impact on the cSAC.</p> <p>2.8.2 Surface Water Drainage Individual developments...will need to provide a surface water drainage system separated from the foul drainage system...sustainable urban drainage systems (SUDS) for controlling run-off from new development.</p>
Enhancement of habitat within the River Barrow and River Nore cSAC through the development of land for amenity use.	Specific LAP policies and objectives to protect, conserve and enhance Graiguenamanagh's natural heritage and biodiversity.	<p>2.4 Natural Heritage and Biodiversity: It is the policy of the County Council (DPP H4) to protect, conserve and enhance County Kilkenny's natural heritage and biodiversity.</p> <p>Policy 4 Natural Heritage and Biodiversity: (b) To protect and enhance wildlife habitats and landscape features.</p> <p>2.11.1 Open Space: ...promote the amenity value of the river corridor...providing that the resulting uses have no adverse impact on the cSAC.</p> <p>There is considerable scope to enhance the amenity and open space areas within the LAP for conservation and enhancement of biodiversity through the planting of native species and appropriate management. Within the cSAC, such measures should also include removal of invasive species, stabilisation of the river bank through re-vegetation with appropriate native species and highlighting the importance of the river for nature conservation.</p> <p>Policy 25 Amenity and Open Spaces: (g) Seek the enhancement of amenity and public spaces within the plan area through the planting of native species and appropriate management as resources allow.</p>

Population and Human Health		
<i>Potential significant effects</i>	<i>Proposed mitigation measures</i>	<i>Specific Policies and Objectives</i>
Continued development of residential areas without adequate community or amenity facilities.	<p>Implementation of LAP Strategy based on achieving a sustainable level of development appropriate to the character, heritage, amenity and the role of Graiguenamanagh as a District Centre within the County.</p> <p>Incorporate specific LAP policies and objectives to ensure that new housing developments satisfy a wide range of social, locational and design criteria.</p> <p>Incorporate specific LAP policies and objectives to strengthen the District Town function of Graiguenamanagh as a commercial, cultural and living centre by encouraging appropriate uses that support vibrant activity in the town centre.</p> <p>Incorporate specific LAP policies and objectives to ensure that the provision of community facilities are related to increases in the population of the town.</p>	<p>Policy 1 Sustainable Development: <i>...promotion of development...as well as the needs of all sections of the local community.</i></p> <p>2.3 Land Uses Generally: <i>The land use zoning encourages a variety of uses in a manner that promotes the concept of a balanced residential community with appropriate services and facilities.</i></p> <p>Policy 5 Town Centre Development: <i>To strengthen the District Town function of Graiguenamanagh as a commercial, cultural, living and visitor centre by encouraging appropriate uses that support vibrant activity in the town centre whilst complementing its distinctive townscape character.</i></p> <p>Policy 10 Housing Location: <i>(f) To adopt a sequential approach to the development of the town and to discourage the leapfrogging of development over Greenfield sites which could lead to development not serviced by physical and social infrastructure and amenities.</i></p>
Increased demand for local employment, requiring suitable land-use zoning.	Incorporate specific LAP policies and objectives to actively encourage future employment provision on suitably zoned and serviced lands.	<p>Policy 2 Land Uses: <i>Proper planning and sustainable development generally.</i></p> <p>Policy 5 Town Centre Development: (As above).</p> <p>Policy 21 Employment and Economy: <i>(a) To secure the sustainable and long term economic development and regeneration of Graiguenamanagh.</i></p>
Increased demand for transport and travel.	<p>Ensure that lands identified for development are all contiguous to the existing built up area of the town and within comfortable walking distance (10 minutes or 900m) of the town centre.</p> <p>Incorporate specific LAP policies and objectives to promote the development of a safe and efficient transport network that will cater for the needs of all users and encourage priority for town centre access, walking, cycling, and public transport.</p>	<p>Policy 1 Sustainable Development: Relevant provisions therein.</p> <p>Policy 2 Land Uses: <i>...function effectively as a compact physical place with good accessibility.</i></p> <p>Policy 5 Town Centre Development: (As above).</p> <p>Policy 6 Traffic and the Public Realm: <i>To seek improvements to the appearance and accessibility of the town centre.</i></p> <p>Policy 11 New Housing Development: <i>Promotion of sustainable transport by</i></p>

		<p><i>reducing the demand to travel.</i></p> <p>Policy 26 Transport <i>(a) To encourage the development of a safe and efficient transport network that will cater for the needs of all users.</i></p>
Impacts on the quality of drinking water sources, that can have the potential to impact upon human health (see Water Supply below).		
Soil, Water, Air and Climatic Factors		
Potential significant effects	Proposed mitigation measures	Specific Policies and Objectives
Loss of topsoil resource through Greenfield development.	<p>Incorporate policies and objectives that promote the use of brownfield sites.</p> <p>Compliance with forthcoming Soil Framework Directive.</p>	<p>Policy 1 Sustainable Development: <i>Promoting the redevelopment of derelict, obsolete and brownfield sites.</i></p> <p>2.7.1 Housing Development Generally: <i>The redevelopment of such derelict, obsolete and brownfield sites will be encouraged by the Council.</i></p> <p>4.3 General Principles of New Development: <i>...the use of 'greenfield sites will be limited to the provision of housing types or arrangements that could not otherwise be accommodated within the existing built form of the town.</i></p>
Contamination of soil from development that does not have adequate wastewater infrastructure.	New development on Greenfield sites in proximity to a watercourse must demonstrate adequate protection against soil erosion from construction works.	Policy 15 Sewerage Network: Relevant provisions to prevent pollution.
Soil erosion resulting from construction works and resultant impact on water quality and fishery resources.	Provisions of CDP (2008) and relevant EU environmental legislation, including Salmonid waters protection comprising suitable setback for new development.	<p>Provisions of CDP (2008) and relevant EU environmental legislation.</p> <p>2.8.2 Surface Water Drainage <i>Energy dissipation, attenuation, de-silting and hydrocarbon interception, where necessary, will be required for all surface water discharges during both construction and operational phases.</i></p>
Water quality problems with potential for significant adverse impact upon biodiversity, drinking water supplies and human health.	River Quality protection measures as Biodiversity Effects.	<p>Policy 3: The River Barrow and River Nore cSAC</p> <p>Action of Policy 18: <i>To continuously monitor water quality in the area to ensure all waters meet the Framework Directive of at least "good status" by 2015.</i></p>

		Policy 14 Essential Services: <i>To secure the upgrading of all water services.</i>
Travel related emissions likely to continue to increase.	Implementation of the provisions of national policy and air pollution legislation, in conjunction with other agencies as appropriate, and provisions of the CDP in relation to Air Quality.	Policy related to traffic management and making the town more pedestrian friendly (Policy 6), and development of a safe and efficient transport network that will cater for the needs of all users (Policy 26).
Material Assets		
Potential significant effects	Proposed mitigation measures	Specific Policies and Objectives
Development of additional lands will lead to increase in the demand for foul water and surface water drainage, with resultant potential contamination risks.	<p>Compliance with the Urban Wastewater Directive (as amended 98/15/EEC), transposed into Irish Law by the Urban Waste Water Treatment Regulations 2001.</p> <p>New development to demonstrate sufficient capacity to appropriately treat waste water.</p> <p>All new and upgraded wastewater treatment systems to be installed as per the EPA's (2000) Wastewater Treatment Manual – Treatment Systems for Single Houses.</p> <p>Enforcement of planning conditions through ongoing monitoring to apply to existing wastewater treatment systems.</p>	<p>Policy 15 Sewerage Network: (a) <i>Ensure the provision of necessary sewerage facilities....and to prevent pollution.</i> (c) <i>Prohibit the connection to the sewerage system of any proposed development out of phase with the overall development of the town or where the existing services are committed for other development.</i></p> <p>Action of Policy 18: <i>To continuously monitor water quality in the area to ensure all waters meet the Framework Directive of at least "good status" by 2015.</i></p> <p>Policy 3: The River Barrow and River Nore cSAC (a) <i>...to provide for the protection of water and quality and the ecological integrity of the watercourse.</i> (b) <i>To assess all proposed developments (individually or in combination with other proposals, as appropriate), which are likely to impact on the cSAC.</i></p> <p>2.8.2 Surface Water Drainage <i>Individual developments...will need to provide a surface water drainage system separated from the foul drainage system...sustainable urban drainage systems (SUDS) for controlling run-off from new development.</i></p>
Water supply and potential quality problems and related adverse impact upon biodiversity and human health.	New developments will only be permitted subject to adequate capacity in water supply being available. However, development proposals may be considered where an adequate temporary private water supply is available, and this must be maintained until the public water supply is upgraded and capacity is available.	<p>Action of Policy 18: <i>To continuously monitor water quality in the area to ensure all waters meet the Framework Directive of at least "good status" by 2015.</i></p> <p>Policy 14 Essential Services: <i>To secure the upgrading of all water services.</i></p>
Travel related emissions likely to continue to	Incorporation of policies and objectives to promote the development of a safe	General policy related to traffic management and making the town more

<p>increase.</p> <p>Development of additional lands will increase the amount of local traffic.</p> <p>Increasing car ownership will contribute to a deterioration in the town centre environment.</p> <p>Reliance on private transport will exclude certain sectors of the population and diminishes the role of public transport.</p>	<p>and efficient transport network that will cater for the needs of all users and encourage priority for town center access, walking, cycling, and public transport.</p> <p>Incorporation of objective to seek the preparation of a town centre traffic management plan.</p>	<p>pedestrian friendly (Policy 6), and development of a safe and efficient transport network that will cater for the needs of all users (Policy 26).</p> <p>Policy 26 Transport: (f) <i>To support improved bus connections.</i></p> <p>Actions: (d) <i>Seek the preparation of a town centre traffic management plan.</i></p>
Cultural Heritage		
<i>Potential significant effects</i>	<i>Proposed mitigation measures</i>	<i>Specific Policies and Objectives</i>
<p>Possible adverse impact on sites of archaeological interest or their settings.</p>	<p>Any possible adverse impacts on Major Sites of Archaeological importance to be referred to the Minister for the Environment Heritage and Local Government under Section 14 of the National Monuments Act (1930) as amended by Section 5 of the National Monuments Act (2004).</p> <p>Planning applications may be required to be accompanied by an assessment undertaken by a certified conservation architect detailing the impacts of development upon the special interest and character of the surrounding architectural heritage.</p> <p>Incorporation of policy and objectives to protect the cultural heritage.</p> <p>The requirement for archaeological assessment prior to the commencement of development, where required.</p> <p>Incorporation of policy and objectives to safeguard structures entered onto the Record of Protected Structures, or listed to be entered onto the Record.</p>	<p>Combination of provisions as set out in:</p> <p>2.6.1 Archaeology Policy 7 Archaeology 2.6.2 Record of Protected Structures Policy 8 Record of Protected Structures</p>
<p>Possible degradation of buildings or townscapes of architectural interest.</p>	<p>Incorporation of policy and objectives to designate appropriate parts of the town as Architectural Conservation Areas.</p>	<p>Combination of provisions as set out in:</p> <p>2.6.3 Architectural Conservation Area Policy 9 Architectural Conservation Area</p>

Landscape		
<i>Potential significant effects</i>	<i>Proposed mitigation measures</i>	<i>Specific Policies and Objectives</i>
Possible adverse impact upon the integrity of landscape resources and overall character.	<p>The requirement for a landscape and visual assessment of major new development, demonstrating that landscape impacts have been anticipated and avoided to a level consistent with the sensitivity of the landscape or view.</p> <p>Incorporation of policy and objectives to protect existing amenity and open space and to promote the enhancement and provision of open spaces and open space links as the town continues to develop.</p>	<p>4.6.2 Generic Development Layouts A fundamental requirement will be the need to integrate all new development into the landscape setting.</p> <p>Policy 4: Natural Heritage and Biodiversity (b) <i>To protect and enhance wildlife habitats and landscape features such as woodlands, trees and hedgerows which are of amenity or biodiversity value and/or contribute to the character of Graiguenamanagh and its landscape setting.</i></p> <p>Policy 11: New Housing Developments <i>The provision where appropriate of landscaped pedestrian and cycle links between and within residential areas and the town centre;</i> <i>The provision of well-designed, attractive, functional and supervised amenity public open spaces.</i></p> <p>General provisions of Section 2.11 and Policy 25 Amenity and Open Space.</p>
Possible adverse impacts on scenic views to and from the town.	Compliance with Policy H52 of the CDP to protect and conserve views and prospects adjoining public roads and river valleys where these views are of high amenity value.	<p>2.11.2 Views and Prospects:</p> <p><i>The Council recognises the need to protect and conserve views and prospects adjoining public roads and river valleys where these views are of a high amenity value. Views to be preserved and protected in the vicinity of Graiguenamanagh, as identified in Appendix F and Figure 8.1 of the County Development Plan.</i></p> <p>4.6.2 Generic Development Layouts <i>All new residential development should take full account of the characteristics of the natural and built environment of the site, the views and vistas to and from the site, and its surrounding areas.</i></p>

2.4 Environmental considerations incorporated into Framework Plans

Framework Plans were included within the LAP for the following key Development Areas:

Opportunity Site 1: The Quay
Opportunity Site 2+3: The Dock + Turf Market
Opportunity Site 4: Rear of Main Street / High Street
Opportunity Site 5: Duiske River Valley
Opportunity Site 6: District Park

Site R1: Lands along western Relief Road
Site R2: Lands at Brandondale House
Site R3: Lands at Harristown
Site R4: Lands at Fairgreen

In addition to being subject to the general policy requirements of the LAP and the CDP, site specific requirements were set out for each Opportunity and Residential Site, based on the environmental influences identified as part of the SEA process, as Guiding Principles and Mandatory Objectives.

Such requirements related specifically to archaeological constraints, proximity to designated sites and natural heritage considerations, pedestrian accessibility and linkage, achieving high quality development and open space provision, visual characteristics and strategic landscaping requirements.

3. How the environmental report and any submissions and observations received thereon in response to the public consultation, have been taken into account during the preparation of the programme

3.1 SEA Scoping Consultations

A Screening Report and Issues Report were submitted to the Department of Environment Heritage and Local Government (Development Applications Unit), the Department of Communications, Marine and Natural Resources (Coordination Unit), and the Environmental Protection Agency (Regional Inspectorate). The responses received are summarised in the SEA Environmental Report.

3.2 Draft LAP and SEA Report

The draft LAP and its initial SEA were placed on public display for 6 weeks in August 2008. A public information evening was held on 29th July 2008. 13 written submissions were received in response to the public display period - three of which related to the SEA, from the EPA, DCENR and DoE.

In response to the submission from Department of Communications, Energy and Natural Resources, changes to Section 2.8 of the Draft LAP were made as follows:

“The Water Framework Directive (WFD) requires that all waters achieve at least ‘good status’ by 2015”. Action under 2.8.4 to read: “To continuously monitor water quality in the area to ensure all waters meet the Water Framework Directive of at least ‘good status’ by 2015”.

In response to the submission from the Spatial Policy Section (DEHLG), the following objective was included under Section 2.8.3 Policy 16:

“In areas at risk from flooding (particularly at riverside locations) a precautionary principle will apply and the methodology set out in the Planning Guidelines ‘The Planning system and flood risk management’ will be applied to development proposals”.

In response to the submission from the EPA, the following was included under Section 2.8.3 Flood Defence:

Given the history, frequency and severity of flooding at Graiguenamanagh, the County Council in partnership with Office of Public Works (OPW), is commissioning a Flood Risk Management Study which will identify the damage caused by flooding, the source(s) of flooding and the mechanism(s) by which the damage is caused. The appropriate works to mitigate or remove the risk of flooding will then be identified.

Action:

To facilitate the completion of the Flood Risk management strategy as agreed with the OPW.

3.3 Amendments to Initial SEA

The following amendments were undertaken to the initial SEA in response to observations made by the Environmental Protection Agency (EPA) and the Development Applications Unit of the DoEHLG:

**Table 3:
Responses in relation to SEA Report**

Submission	Response
Environmental Protection Agency	
Confirm whether or not Kilkenny County Council consulted with the public.	Situation clarified in Proposed Amendments – Strategic Environmental Assessment (SEA) Report (December 2008).
Consideration should be given to the use of maps, data, tables, and graphs as appropriate to illustrate the state of the existing environment and to reveal and examine trends in environmental quality.	Additional maps, data, tables and graphs as appropriate for each environmental topic to be included, as shown in Proposed SEA Amendments Report.
The description of the evolution of the environment without implementation of the Plan should be described for each environmental topic.	To be expanded upon as shown in Proposed SEA Amendments Report.
The development of environmental protection objectives (EPO's) to be used during the environmental assessment should be considered. The development and assessment of Plan alternatives is not outlined in any great detail. Demonstrate how the possibility of cumulative effects, due to the proximity of the Callan, Graigenamanagh, Castlecomer and Thomastown LAPs was assessed.	To be expanded upon as shown in Proposed SEA Amendments Report.
The report is clearly structured. There is a logical link between the environmental baseline, the likely significant effects and the proposed mitigation measures. However, with regard to the assessment of impact, the use of a matrix is highly recommended, permitting each Plan Objective to be readily assessed against each Strategic Environmental Objective.	To be expanded upon as shown in Proposed SEA Amendments Report.
Demonstrate how the possibility of cumulative effects, due to the proximity of the Callan, Graigenamanagh, Castlecomer and Thomastown LAPs, was assessed. This matter was raised in the EPA submission. In addition, you should clarify how the full range of environmental effects as set out in the SEA Directive and Regulations e.g. "secondary, synergistic, short, medium and long-term, permanent and temporary, positive and negative effects" of implementation of the Plan have been assessed.	To be expanded upon as shown in Proposed SEA Amendments Report.
Recommended that a summary table be used which should provide a readily accessible summary of the links between environmental effect, mitigation measure, monitoring	To be expanded upon as shown in Proposed SEA Amendments Report.

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measure and a Plan Policy or Objective to address the effect.	
Consider the development of Mitigation Measures for the potential significant effects described in Section 2.4.3 (e.g. using stronger planning conditions etc.)	To be expanded upon as shown in Proposed SEA Amendments Report.
It is a legal requirement to develop a programme to monitor the likely impact of the Plan on the environment. The Plan should address, as appropriate, by way of relevant objectives, the significant water management issues identified in the Water Matters Consultation publications for the relevant River Basin District.	To be expanded upon as shown in Proposed SEA Amendments Report.
Zoning for development should be linked to availability of infrastructure and capacity. Priority should be given to provision of adequate and appropriate infrastructure in advance of any development.	To be expanded upon as shown in Proposed SEA Amendments Report.
Consideration should be given to inclusion of Plan Policies and Objective for the following: <ul style="list-style-type: none"> • Connection of all remaining houses within Town Boundary to the Wastewater Treatment Plant. • Enforcement of planning conditions related to installation, operation and maintenance of septic tank systems. There would be merits in considering the preparation of a Water Conservation Strategy for the County. The Strategy should address new and existing developments within the area.	To be expanded upon as shown in Proposed SEA Amendments Report.
The Flood Risk Management approach as adopted by the Office of Public Works (OPW) should be considered, as appropriate, in consultation with the OPW to relevant catchments where there is potential risk of flooding within the Plan area. A specific Policy and Objective should be included to provide for appropriate flood risk assessments to be undertaken, where development(s) and zoning are being proposed in areas within the floodplain.	To be expanded upon as shown in Proposed SEA Amendments Report.
Appropriate zoning of lands and restriction of use should apply in areas liable to flooding to avoid increased risk of flooding of the lands either within or adjoining the zoned areas. The Plan should include relevant policies and objectives for the provision and promotion of adequate and appropriate Sustainable Urban Drainage Systems (SUDS).	To be expanded upon as shown in Proposed SEA Amendments Report.
A specific Policy and Objective should be included to carry out detailed habitat mapping in the area.	To be expanded upon as shown in Proposed SEA Amendments Report.
Development Applications Unit – Submission 1 DoEHLG	
Comments refer to SEA and AA documents; Requests a full AA is completed in order to assess impacts on cSAC.	Comments on the SEA similar to those raised by the EPA, as addressed above. Full Appropriate Assessment prepared by Openfield Ecological Services (October 2008).

Development Applications Unit – Submission 2 DoEHLG	
Comments refer to SEA and AA documents; Requests a full AA is completed in order to assess impacts on cSAC.	Comments on the SEA similar to those raised by the EPA, as addressed above. Full Appropriate Assessment prepared by Openfield Ecological Services (October 2008).

3.4 Proposed Amendments to LAP and SEA Report

The Proposed Amendments to the LAP and the SEA response were placed on public display for 5 weeks in December 2008 – January 2009. Four written submissions were received in response to the public display period – three of which related to the SEA, from the EPA, DCENR and DoE.

In response to the submission from the DoE, changes were made to Section 2.7.1 of the Draft LAP as follows:

2.7.1 Housing Development Generally

There is sufficient land zoned in this Plan to cater for needs beyond the lifetime of this Plan. The Council recognises the direct implications of this zoning in relation to the scheduling and cost of delivering infrastructure. In this regard, the Council will adopt a sequential approach to the development of the town and will discourage the leapfrogging of development over greenfield sites which would result in the development of the town in a piecemeal and incoherent manner out of sequence with the scheduling and delivery of the necessary infrastructure to serve the proposed development.

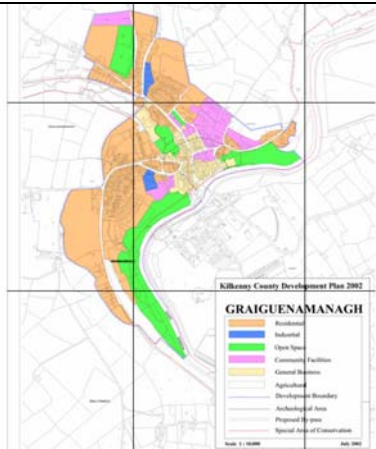
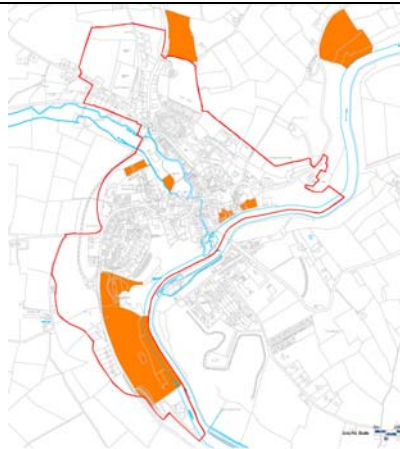
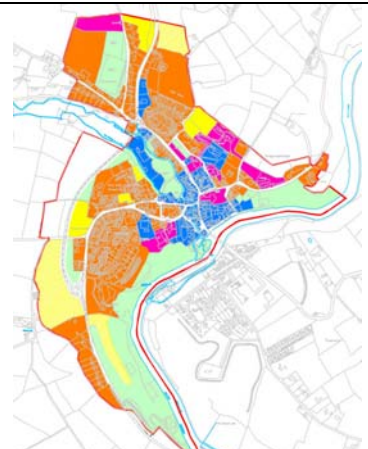
Policy: To adopt a sequential approach to the development of the town and to discourage the leapfrogging of development over greenfield sites which would lead to development not serviced by physical and social infrastructure and amenities.

4. Consideration of Alternatives / Reasons for choosing Adopted LAP

4.1 Alternative Plan Scenarios

As part of the plan making process, alternative plan scenarios were considered and broadly assessed against the main aims and objectives for Graiguenamanagh and the provisions of the CDP. The submissions and observations received during the public consultation exercises, and in particular the many requests for re-zoning for predominantly residential uses, provided the basis for considering various conceptual alternatives during the early stages of plan inception.

In response to the requirements of the SEA Directive, the following strategic development alternatives were considered for Graiguenamanagh:

<p>Alternative 1: 'No Change' - setting out the environmental implications of continuing with the existing plan without review.</p> <p>Alternative 2: 'Development-driven' - setting out the environmental implications where future growth of the town is in response to requests for additional zoning.</p> <p>Alternative 3: 'A compact town' - setting out the environmental implications where future growth is determined by predicted population increases and associated requirements, while recognising the importance of conserving and enhancing the quality of the built and natural environment.</p>		
		
Alternative 1: 'No Change'	Alternative 2: 'Development-driven'	Alternative 3: 'A balanced town'

As Alternative 1 does not reflect population trends and projections, and Alternative 2 proposes the highest quantity of new development with the lowest level of control, Alternative 3 provides for the most positive outcome and is therefore the preferred strategy for the town.

4.2 Preferred Option

The Alternative 3 scenario comprises the draft LAP for Graiguenamanagh. It takes account of the higher level strategic objectives for the town (County and Government policies and guidelines), as well as the geographical scope of the plan. It promotes the concept of a compact town where people want to live, work or visit, and where residents have access to local job opportunities. It therefore adheres to the principles of sustainability through the promotion of development which makes a positive contribution to the future of Graiguenamanagh, while recognising the importance of conserving and enhancing the quality of the built and natural environment, as well as the needs of all sections of the local community. It also ensures that realistic alternatives to one-off houses in the countryside are available by zoning appropriate lands on the periphery of the development area, thereby achieving potential beneficial impacts through reducing the need to travel, and improving people's quality of life with regard to accessibility to essential services, jobs and facilities.

5. Monitoring Measures of the LAP

5.1 Monitoring Requirements

Article 10 of the SEA Directive requires significant environmental effects of the implementation of plans to be monitored.

As described in the Environmental Report and this Statement, adverse effects as a result of implementing the LAP for Graiguenamanagh are not envisaged. Potential significant environmental effects were eliminated as part of the iterative plan making process, subject to compliance with the policy and objectives of the LAP, the CDP and existing and emerging national and international environmental directives, and to ongoing monitoring of the plan aimed at identifying at an early stage any unforeseen adverse effects.

Monitoring implementation of the LAP will therefore be essential during its 6-year lifespan to ensure that potential significant environmental effects are avoided or suitably mitigated, as intended by the policies and objectives of the plan. At the subsequent review of the LAP, the status of all actions, policies and objectives need to be further considered in relation to the monitoring results.

The proposed monitoring measures for the Graiguenamanagh LAP are based on the indicators shown in the following table which, in order to avoid unnecessary duplication, are broadly the same as those included in the SEA for the County Development Plan.

5.2 Monitoring Responsibility

The responsibility for monitoring will lie with the County Council, mostly as part of the development management process, supported as necessary by other relevant statutory authorities according to the environmental topic under consideration, such as:

Kilkenny County Council	KCC
Department of Health & Children	DoHC
Department of Enterprise Trade & Employment	DoETE
Environmental Protection Agency	EPA
Department of Environment Heritage & Local Government	DoEHLG
Heritage Service	
Department of Transport	DoT

**Table 4:
Monitoring Proposals**

Topic	Environmental Objective and Sub-Objectives	Indicators	Monitoring Responsibility
Biodiversity	<i>Maintain and enhance local biodiversity.</i>		
	To conserve and enhance the diversity of habitats and species, including designated sites, which may be sensitive to development.	Loss of habitats and species.	KCC
	To avoid loss of relevant habitats, geological features, species or their sustaining resources in designated ecological sites.	Percentage of relevant habitats and designated ecological sites lost as a result of implementation of the LAP.	KCC
	To avoid significant adverse impacts, including direct, cumulative and indirect impacts, to relevant habitats, geological features, species or their sustaining resources, in designated ecological sites by development within or adjacent to these sites.	Number of significant adverse impacts, including direct, cumulative and indirect impacts, to relevant habitats, geological features, species or their sustaining resources in designated ecological sites by development within or adjacent to these sites as a result of implementation of the LAP.	KCC
	To sustain, enhance or – where relevant - prevent the loss of ecological networks or parts thereof which provide significant connectivity between areas of local biodiversity.	Percentage loss of connectivity between areas of local biodiversity as a result of implementation of the LAP.	KCC
Population and Human Health	<i>Improve people's quality of life based on high quality residential, working and recreational environments and on sustainable travel patterns.</i>		
	To facilitate the provision of essential services, jobs and facilities for an increasing population.	Housing, employment and social needs accommodated.	KCC
	To protect human health from hazards or nuisances arising from exposure to incompatible land uses.	Occurrence (any) of a spatially concentrated deterioration in human health. Increase in extent of green spaces and amenities available to the public.	DoHC
	Seek to improve the socio-economic profile.	Employment rates over period of the plan.	DoETE KCC

Topic	Environmental Objective and Sub-Objectives	Indicators	Monitoring Responsibility
Soils and Geology	<i>Maintain the quality of soils and conserve geological resources.</i>		
	To protect and enhance soil quality.	Area of 'brownfield' development.	KCC
	To conserve geological resources.	Percentage loss of existing geological resource.	KCC
Water	<i>Prevent any deterioration in the status of any waters and to achieve at least 'good status' in all waters by 2015.</i>		
	To protect and improve river water quality in Graiguenamanagh.	Biotic Quality Rating (Q value).	KCC EPA
	To prevent pollution and contamination of groundwater.	New developments granted permission which cannot be adequately served by the current WWTP.	KCC EPA
	To reduce effects of flooding.	Developments granted permission on flood plain/unauthorised development on floodplain. Recorded flooding episodes. Compliance with findings of the Flood Risk Management Study.	KCC
Air and Climate	<i>Reduce all forms of air pollution and control greenhouse gas emissions.</i>		
	Reduce vulnerability to the effects of climate change.	Provision of non-vehicle routes. Number of permissions granted incorporating energy efficient technologies.	KCC
	Improve ambient air quality.	EPA air quality indicators.	EPA
Material Assets	<i>Maximise the use of existing infrastructure and plan for future needs.</i>		
	Promotion of alternative modes of travel to the private car.	Reduction in vehicle numbers following completion of town bypasses. Provision of non-vehicle routes.	DoT KCC
	To protect and improve water supply.	Levels of E-Coli and total coliform bacteria present in drinking water. Developments granted permission, which cannot be adequately serviced by current water supply.	EPA KCC

Topic	Environmental Objective and Sub-Objectives	Indicators	Monitoring Responsibility
Cultural Heritage	<i>Promote the protection and conservation of cultural heritage including architecture, archaeology, and local history.</i>		
	To protect and conserve Graiguenamanagh's cultural heritage, including areas of archaeological interest, protected structures, important monuments and sites, and traditional townscape features.	Number of developments resulting in full or partial loss of cultural heritage.	KCC DoEHLG Heritage Service
Landscape	<i>Conserve and enhance valued natural and historic landscapes and features within them.</i>		
	Protect and enhance landscapes identified as contributing to the setting of the town.	Number of developments granted / unauthorised which results in avoidable impacts on the landscape – especially with regard to sensitive landscape features and designated scenic views (CDP)	KCC
	Protect and enhance landscape features of local value.	Number of developments granted / unauthorised which results in avoidable impacts on the landscape – especially with regard to sensitive landscape features and designated scenic views (CDP)	KCC

5.3 Monitoring of Residual Effects

In relation to residual effects, the Appropriate Assessment identified the following:

- Deterioration of water quality through the discharge of poorly treated sewage effluent; and
- Deterioration of water quality through the discharge of hydrocarbons and particulate matter in surface water run-off.

As the EPA have a river quality monitoring station in the town as part of their on-going programme of data collection, it is not considered necessary to propose further monitoring for these potential effects. However, more detailed monitoring may be necessary as part of Appropriate Assessments for individual developments in the future.