Kilkenny County Council County Hall John Street Kilkenny

GRAIGUENAMANAGH LAP 2008-2014

Proposed Amendments - Strategic Environmental Assessment (SEA)

December 2008



49 O'Connell Street, Limerick T: 061 409694 F: 061 409695 E: office@ndj.ie The following amendments of the SEA, undertaken as part of the Draft and the subsequent Proposed Amendments to the Graiguenamanagh LAP 2008, are proposed in response to observations made by the Environmental Protection Agency (EPA) and the Development Applications Unit of the DoEHLG. The amendments will be incorporated as necessary in the SEA Environmental Report and circulated to the prescribed bodies.

Following the making of the plan, a SEA Statement will be prepared which summarises how the environmental considerations have been integrated into the LAP.

DG10 Submission:

Sandrine Delalieux, EPA

Confirm whether or not Kilkenny County Council consulted with the public.

Response:

The provisions of the Planning and Development Act 2000-2004 require that planning authorities take whatever steps they consider necessary to consult the public in preparing a LAP. For the Graiguenamanagh LAP, public consultation undertaken was as follows:

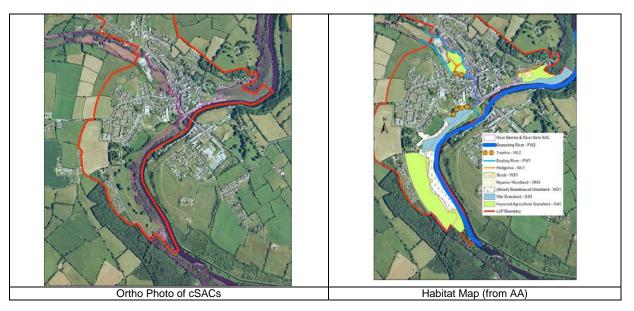
- Notice of commencement of the LAP process published in the Kilkenny People on 17th December 2007.
- Initial Public Information Evening and Workshop (pre-draft), held in Duiske College, Graiguenamanagh, on the evening of 16th January 2008, attended by a range of stakeholders and members of the local community (approximately 35 persons). Following an introduction by Denis Malone, Senior Planner at Kilkenny County Council, a presentation was given by Nicholas de Jong Associates on the LAP process and the key issues determined to date, such as demographics and land use appraisal. The attendees present were then divided into groups and discussions ensued to determine perceived weaknesses and opportunities within the town, focusing on the following topics:
 - Traffic, Roads, Parking
 - Public Realm
 - Zoning and Land-use
 - Community Facilities and Services
 - Economy
 - Education
 - Environment
 - Heritage
- A questionnaire was available to help prompt and structure the responses. The main issues arising from the
 process were noted on plans of the town, and summarised in an Issues Report (March 2008). The
 consultation material was subsequently displayed in the public library and on the Kilkenny County Council
 website. Questionnaires distributed at the Workshop for formal or informal submissions or observations and
 returned to Kilkenny County Council by 7th February 2008 (15no.) were summarised in the Appendix of the
 Issues Report.
- Written submissions with respect to the County Kilkenny Draft Development Plan and Environment Report (available for inspection from 10th August to 19th October 2007), where applicable to Graiguenamanagh, were also extracted and summarised within the Issues Report. A total 20no. written submissions were received within the prescribed period.
- The Proposed LAP and SEA were placed on public display from 11th July to 22nd August 2008 inclusive. A total of 13 written submissions were received in response to the display period. As part of the statutory procedure for preparing a new Local Area Plan (LAP), as set out in Section 20 of the Planning and Development Act 2000-2006, a Managers Report was prepared that presented the submissions and observations made, and set out the Manager's responses to the issues raised.
- A Public information meeting was held in Graiguenamanagh on 29th July 2008 at the local library as part of the public consultation process during the display period.

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.

Response:

Additional maps, data, tables and graphs as appropriate for each environmental topic will include the following -

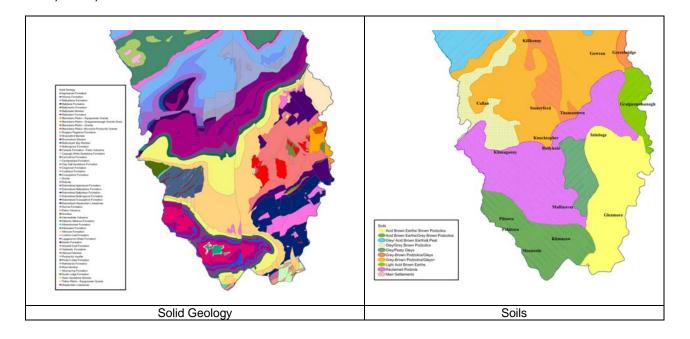
Biodiversity and Flora and Fauna

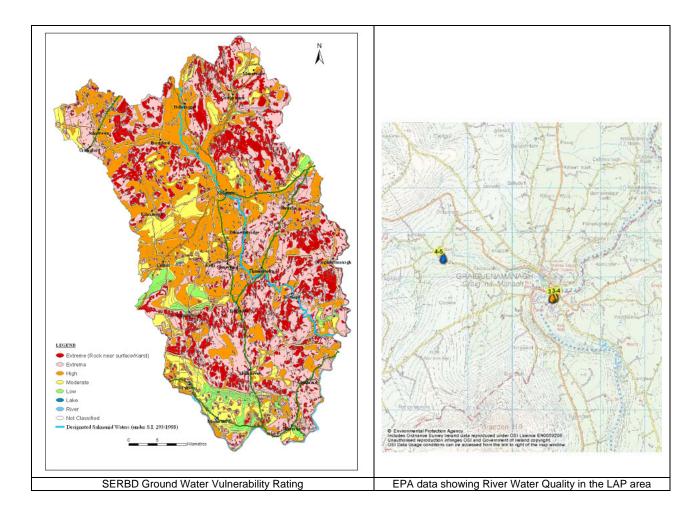


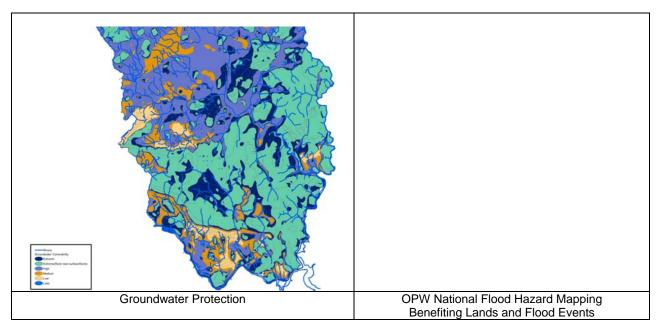
Population and Human Health

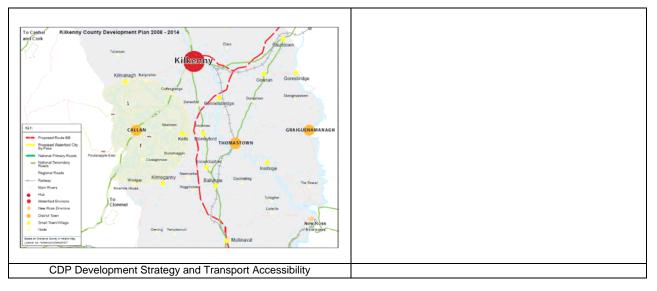
Table 1: Population trends of the inter-censal periods 1981-2006								
Census Year	Town Population	County Population	Town Population as % of the County					
1981	1,203	70,806	1.69					
1986	1,203	73,186	1.64					
1991	1,112	73,635	1.5					
1996	1,113	75,336	1.47					
2002	1,166	80,339	1.45					
2006	1,097	87,558	1.25					

Soil, Water, Air and Climatic Factors



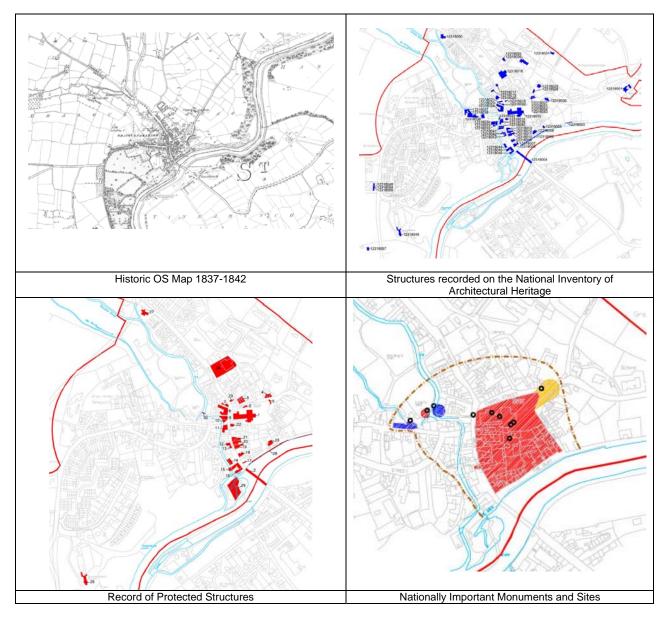




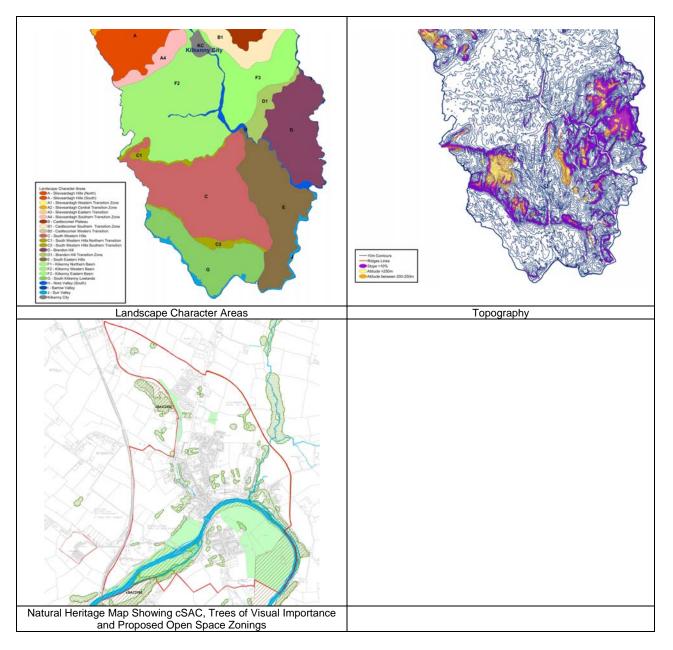


Material Assets (includes waste water, drinking water and transport infrastructure)

Cultural Heritage



Landscape



The description of the evolution of the environment without implementation of the Plan should be described for each environmental topic.

Response:

The Draft SEA considered the following environmental topics:

- Biodiversity and Flora and Fauna
- Population and Human Health (access to public spaces and play facilities to be added)
- Soil, Water, Air and Climatic Factors
- Material Assets (includes waste water, drinking water and transport infrastructure)
- Cultural Heritage
- Landscape

For each topic, the environmental baseline was summarised and potential significant effects identified, together with proposed mitigation measures required to prevent, reduce and as fully as possible off-set any significant adverse effects. Where appropriate, these mitigation measures were integrated into the Draft LAP as specific policies, objectives or actions.

Following the making of the LAP, a SEA Statement will be prepared which will further summarise how the environmental considerations have been integrated into the plan.

A description of the evolution of the environment without implementation of the Plan in relation to each environmental topic (i.e. without any policy changes or infrastructural improvements) effectively represents a continuation of present trends or a 'do-nothing' scenario. The summary of Graiguenamanagh's baseline environment includes the heading 'Potential significant effects', which gives an indication of how current environmental issues may be exacerbated over time if such a 'do-nothing' scenario were implemented. The heading will be changed to incorporate the 'do-nothing' implications, expanded where necessary to incorporate the findings and recommendations of the Appropriate Assessment.

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, Graiguemanagah, Castlecomer and Thomastown LAPs was assessed.

Response:

Environmental protection objectives (EPOs) will be added based on the SEA Planning Guidelines, the SEA Directive, and the Environmental Report for the Kilkenny County Development Plan 2008 – 2014. The objectives will be developed according to the specific environmental constraints identified for Graiguenamanagh, as determined from reviewing the key baseline data, as follows:

- The presence of a site designated and protected under the Habitats Directive as a cSAC.
- The population of Graiguenamanagh was recorded as 1,097 persons at the 2006 Census. It is anticipated that this could increase to around 1,500 persons by 2014 and by 1,750 persons by 2020.
- Graiguenamanagh is located within a river catchment assessed as being 'At Significant Risk' (SERBD); in an area with a Extreme-High Ground Water Vulnerability Rating; and in an area with a 'Probably Not at Significant Risk' Ground Water Risk Assessment.
- Presently the water supply network is nearing capacity. To augment the system, there has been a recent proposal to drill an additional well at Ballinakill, to provide approx 300 cubic metres of water per day.
- The existing road network has recently been supplemented by the opening of a western Relief Road, which is expected to remove much of the through traffic (HGVs in particular) from the town centre. The town centre streets, however, are narrow and liable to moderate levels of congestion from local traffic.
- There are frequent pedestrian conflict points, limited pedestrian crossing facilities, incomplete footpaths, and no facilities for cyclists.
- There is a wealth of cultural heritage and areas of archaeological interest in the town.
- The town is located within an 'Area of High Amenity', and the River Barrow is an important visual and recreational resource.

Suitable indicators for the measurement and monitoring of the effectiveness of the plan in meeting the environmental objectives will be based, where appropriate, on the indicators in the Environmental Report for the Draft Kilkenny County Development Plan 2008 – 2014.

The objectives and indicators will relate to the environmental topics previously identified, as follows:

Environmental Objective	Indicator		
Biodiversity and Flora and Fauna			
To conserve and enhance the diversity of habitats and species, including designated sites which may be sensitive to development.	Loss of habitats and species CDP).		
Population and Human Health			
To facilitate the provision of essential services, jobs and facilities for an increasing population.	Housing, employment and social needs accommodated.		
Soil, Water, Air and Climatic Factors			
To protect and enhance soil and/or air quality.	Area of 'brownfield' development.		
To prevent pollution and contamination of groundwater.	Faecal Coliform counts per 100ml of groundwater (CDP).		
	New developments granted permission which cannot		
	be adequately served by the current WWTP.		
To protect and improve river water quality in	Biotic Quality Rating (Q value) (CDP).		

Graiguenamanagh.	
To reduce effects of flooding	Developments granted permission on flood plain/un- authorised development on floodplain. Recorded flooding episodes.
Material Assets (includes waste water, drinking water	
and transport infrastructure)	
To protect and improve water supply	Levels of E-Coli present in drinking water. Developments granted permission, which cannot be adequately service by current water supply.
Cultural Heritage	
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 unauthorized developments resulting in full or partial loss of cultural heritage (CDP).
Landscape	
To protect and enhance valued natural and historic landscapes and features within them	Number of developments granted/unauthorized conspicuous developments located within sensitive landscapes (CDP).

The development and assessment of Plan alternatives

As indicated in the Draft SEA, alternative plan scenarios were considered as part of the plan-making process and broadly assessed against the main aims and objectives for Graiguenamanagh as established within the Draft LAP and the CDP 2008, which included broad environmental objectives. The submissions and observations received during the public consultation exercises and, in particular, the requests for re-zoning for predominantly residential uses, provided the basis for considering various conceptual alternatives during the early stages of plan inception.

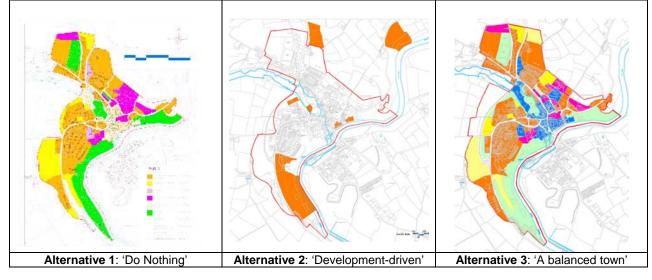
In order to make more explicit the process of taking into account reasonable alternatives, and their potential environmental effects, the following alternative development scenarios will be expanded upon:

Alternative 1: 'Do Nothing' - setting out the environmental implications of continuing with the existing plan without review.

Alternative 2: 'Development-driven' - setting out the environmental implications where future growth of the town is in response to requests for additional zoning.

Alternative 3: 'A compact town' - setting out the environmental implications of pursuing a scenario that makes a positive contribution to the development of Graiguenamanagh by recognising the importance of conserving and enhancing the quality of the built and natural requirement, as well as the needs of all sections of the local community.

The development and assessment of Plan alternatives will comprise a brief description of each scenario; an assessment of each alternative against the environmental objectives as established above, and resultant environmental effects; and an outline of the reasons for selecting the preferred alternative.



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.

Response:

A matrix will be added, based on the following Environmental Protection Objectives:

- 1. To conserve and enhance the diversity of habitats and species, including designated sites which may be sensitive to development
- 2. To facilitate the provision of essential services, jobs and facilities for an increasing population
- 3. To protect and enhance soil and/or air quality
- 4. To prevent pollution and contamination of groundwater
- 5. To protect and improve river water quality in Graiguenamanagh
- 6. To reduce effects of flooding
- 7. To protect and improve water supply
- 8. To protect and conserve Graiguenamanagh's cultural heritage, including areas of archaeological interest, protected structures, important monuments and sites, and traditional townscape features
- 9. To protect and enhance valued natural and historic landscapes and features within them

The links between LAP Policy and Objectives, Environmental Protection Objectives, environmental effects and related mitigation and monitoring measures will be incorporated as follows:

LAP Policy/Objective	1	2	3	4	5	6	7	8	9	Comments on mitigation + monitoring

- O Neutral Impact
- ✓ Positive Impact
- X Negative Impact
- ? Unknown Impact

Demonstrate how the possibility of cumulative effects, due to the proximity of the Callan, Graiguenamanagh, 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.

Response:

Cumulative effects may arise where several developments each have insignificant effects but together have a significant effect; or where several individual effects of the LAP have a combined effect (e.g. pollution from domestic effluent and surface water run-off can have cumulative effects on water quality).

At the wider scale, cumulative effects may occur through combined impacts between different LAPs in the same catchment, such as Thomastown, Castlecomer, Callan, Kilkenny, Bennettsbridge and New Ross. These towns are all expected to result in an increase in local populations and business activity, which could result in a cumulative impact as the pressures on the water resource grows.

As identified by the Appropriate Assessment for Graiguenamanagh, cumulative effects at the wider scale comprise:

- Deterioration of water quality through the discharge of poorly treated sewage effluent.
- Deterioration of water quality through the discharge of hydrocarbons and particulate matter in surface water run-off.
- Deterioration of water quality, habitat loss and bank erosion from increased recreational boat usage.

The nature, scale and likelihood of such predicted cumulative impacts will be incorporated where appropriate.

The full range of environmental effects as set out in the SEA Directive will be incorporated in the Comments column of the assessment Matrix, including as appropriate reference to secondary, cumulative, synergistic, short, medium, long-term, permanent, temporary, positive and negative effects and scale (local / regional / national).

Recommended that a summary table be used which should provide a readily accessible summary of the links between environmental effect, mitigation measure, monitoring measure and a Plan Policy or Objective to address the effect.

Response:

A summary table will be added.

Consider the development of Mitigation Measures for the potential significant effects described in Section 2.4.3 (e.g. using stronger planning conditions etc.)

Response:

With regard to 'soil', the following mitigation measures will be included:

- Promote the redevelopment of derelict, obsolete and brownfield sites;
- Encourage the reuse of soils generated from housing and other development.
- Permission for new development in proximity to a water course must demonstrate adequate protection against soil erosion from construction works.

With regard to 'water', the following mitigation measure will be included:

• All new and upgraded wastewater treatment systems to be installed as per the EPA's (2000) Wastewater Treatment Manual – Treatment Systems for Single Houses.

• Enforcement of planning conditions through ongoing monitoring to apply to existing wastewater treatment systems. With regard to 'travel related', the following mitigation measure will be included:

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 center access, walking, cycling, and public
transport.

With regard to 'air and climatic factors', the following mitigation measure will be included:

- Speed restrictions in the town centre would have beneficial effects in certain locations as slower speeds conserve fuel and increase fuel efficiency, thereby minimising emissions.
- Promotion of sustainable modes of travel.
- Encourage the use of sustainable design and construction methods.

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.

Response:

Such provisions will be considered for inclusion under Section 2 Policies and Objectives.

The Environmental Report will also contain a set of performance indicators and targets that can be used by the Council to monitor the progress in delivering environmental objectives, as well as informing the next review of the LAP.

For consistency, monitoring proposals will be based where appropriate on those outlined in the SEA for the CDP 2008, as follows:

- Loss of habitats and species (CDP).
- Faecal Coliform counts per 100ml of groundwater (CDP).
- New developments granted permission which cannot be adequately served by the current wastewater treatment plant (CDP).
- Biotic Quality Rating (Q value) (CDP).
- Levels of E-Coli present in drinking water.
- Developments granted permission which cannot be adequately service by current water supply.
- Developments granted permission on flood plain/unauthorized development on floodplain.
- Recorded flooding episodes.
- Number of unauthorised developments resulting in full or partial loss of cultural heritage (CDP).
- Number of developments granted/unauthorised conspicuous developments located within sensitive landscapes
- (CDP).Area of brownfield land available (CDP).

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.

Response:

The introduction to Draft LAP Section 2.8, Service Infrastructure and Flood Defence, states that: For development to proceed within the town, it will be necessary for development proposals to address the effects imposed on existing water services (water supply, foul drainage and storm drainage systems). Consideration should also be given to the requirement for a flood relief scheme due to occasional flooding of the River Duiske.

Provisions linked to availability of infrastructure and capacity are therefore implicit in the policies and objectives of the Draft LAP, and reinforced by the recommendations of the Appropriate Assessment and the provisions of the CDP 2008. Specific reference to the need for adequate and appropriate infrastructure, community services, amenities, etc, to be planned and phased to address any current problems or deficits and to reflect predicted increases in population will also be made explicit in the SEA.

Consideration should be given to inclusion of Plan Policies and Objective for the following: • 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.

Response:

Further consideration will be given as appropriate to including Policies and Objectives under Section 2.8 of the LAP for connection of all remaining houses within Town Boundary to the Wastewater Treatment Plant, and enforcement of planning conditions related to installation, operation and maintenance of septic tank systems. The merits of a Water Conservation Strategy for the County, addressing new and existing developments within the area, are well recognised.

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.

Response:

Draft LAP Section 2.8.3 includes for:

In consideration of occasional flooding of the River Duiske, the Council recognises the need for a precautionary approach to development in flood risk areas in accordance with the principles of sustainable development and the likely impacts of climate change. The Council will strive to minimise flood risk by aiming to ensure that no new developments are susceptible to, cause or exacerbate flooding. The OPW will be consulted on any development proposal which affects the floodplain or could exacerbate flooding in any way.

Policy 16: Flood Defence

(a) Development in an area at risk from flooding will only be permitted where all of the following criteria are met, as fully demonstrated by a flood risk assessment submitted in advance of an application:

(b) The type of development is appropriate to the level of flood risk associated with its location;

- (c) The development is consistent with the flood risk outlined above to the satisfaction of the OPW;
- (d) It would not necessitate the construction of additional flood defences to achieve adequate protection from flooding;
- (e) It is clear that no reasonable option would be available in a location of lower risk;
- (f) It would not reduce the capacity of the floodplain to store water;

(g) It would not impede the flow of water in the floodplain;

(h) It would not result in development which would be subject to regular flooding; and

(i) In areas at risk from flooding (particularly at riverside locations) a precautionary principle will apply and the methodology set out in "The Planning System and Flood Risk Management, Consultation Draft Guidelines for Planning Authorities" September 2008, as updated, will be applied to development proposals.(Sub. DG3, DG8 and DG11).

Proposed Amendment to Draft LAP Policy 2.8.3 Flood Defence sets out the following:

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.

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).

Response:

With the exception of Town Centre uses in the vicinity of High Street and Main Street, areas liable to flooding are mostly zoned for Open Space purposes (thereby restricting their use). The area to the rear of Main Street / High Street is identified in the Draft LAP as Opportunity Site 4. Given its proximity to the town centre, the interesting industrial heritage, and the presence of the river and Mill Race, the area contains several possible redevelopment and improvement sites which together could help realise its full amenity and heritage potential. Although historically prone to flooding, the site is essentially a brownfield regeneration area that would considerably benefit from appropriate redevelopment. For any such use, a precautionary principle will apply, in accordance with Draft LAP Policy 2.8.3 and the methodology set out in "The Planning System and Flood Risk Management, Consultation Draft Guidelines for Planning Authorities" September 2008, as updated, will be applied.

Draft LAP Policy 2.8.2 Surface Water Drainage includes the following explanation:

Consideration also needs to be given to sustainable urban drainage systems (SUDS) for controlling run-off from new development and all proposals will be expected to incorporate such systems where appropriate. Energy dissipation, attenuation, de-silting and hydrocarbon interception, where necessary, will be required for all surface water discharges during both construction and operational phases.

A specific Policy and Objective should be included to carry out detailed habitat mapping in the area.

Response:

A site survey and habitat mapping was undertaken as part of the Appropriate Assessment for areas of SAC that fall within the LAP area as well as potential wildlife corridors that are associated with it.

The area was surveyed in accordance with the Heritage Council's draft Habitat Survey guidelines (Heritage Council, 2002) and the 'Guidelines for Baseline Ecological Assessment' from the Institute of Environmental Assessment (IEA, 1995). Habitats were identified in accordance with Fossitt's 'Guide to Habitats in Ireland' (Fossitt, 2000). A species list for each habitat was compiled and target notes were made. Targets notes and location information were taken with a *Garmin GPS 60*. Data were then uploaded to the *ArcView 9.2* GIS software suite.

It is also an objective (a) of Proposed LAP Amendment Policy 4: Natural Heritage and Biodiversity, to seek to identify within the period of the Plan, in co-operation with the relevant statutory authorities and other relevant groups, sites of local nature conservation interest, not otherwise protected by legislation.

DG 12 Submission:

Paul McMahon, The Manager, Development Applications Unit, The Department of the Environment, Heritage & Local Government Dún Scéine, Harcourt Lane, Dublin 2

Comments refer to SEA and AA documents; Requests a full AA is completed in order to assess impacts on cSAC.

Response:

Comments on the SEA are similar to those raised by the EPA, and as addressed above. A full Appropriate Assessment of the Graiguenamanagh LAP has been prepared by OPENFIELD Ecological Services (October 2008). The assessment concludes that the LAP is predicted to result in severe and moderate negative impacts on the integrity of the River Barrow and River Nore SAC. However there is also potential for major positive impacts. Seven recommendations were made as avoidance mitigation and, if implemented, could ensure that the magnitude of these impacts is not only reduced to neutral but will be positive for the integrity of the site:

- 1. Ensure that the boundary of the SAC is clearly marked on the LAP objectives map. Designate this area for 'biodiversity conservation' or other similar title that accurately conveys the purpose and importance of the site.
- 2. Ensure that *any* development within the town that is within or adjacent to the SAC is screened for impacts in accordance with the requirements for Appropriate Assessment under the Habitats Directive.
- 3. Ensure that new or upgraded wastewater treatment plant is in place and operational prior to the opening of new residential or business areas within the town.
- 4. Ensure that all new developments that will be discharging surface water to the Barrow river include appropriate abatement measures to ensure that final concentrations of pollutants will not result in a deterioration of water quality. This should be done by integrating SUDS within all such developments e.g. constructed wetlands, green roofs or permeable paving.
- 5. The county council should work with the Southern Regional Fisheries Board (SRFB) and local boat users to ensure that pollution does not arise from this important recreational activity. Speed limits should be set for boat users to prevent excess wave action that can lead to bank erosion. This should be done in consultation with the SRFB who are in a position to assess the potential for damage from this source. Any new proposals to extend or create jetties, piers or moorings must be subject to Appropriate Assessment to ensure that such developments do not result in negative impacts to the SAC.
- 6. Prior to seeking planning permission for the renovation of old or derelict buildings either along the Barrow waterfront or the millrace along the Duiske ensure that a qualified professional carries out a bat survey of the buildings. This should identify the species and number of Bats (if present), the nature of the site for the species (e.g. wintering or maternity roost) and recommend avoidance or mitigation measures as appropriate.
- 7. Ensure that the Appropriate Assessment that will be undertaken prior to the development of these amenity areas suggests measures that will enhance the value of the site for conservation as well as the amenity value for users. This should be done in consultation with NPWS and SRFB.

DG 13 Submission:

Proinsias De Bátúin, Development Applications Unit, The Department of the Environment, Heritage & Local Government Dún Scéine, Harcourt Lane, Dublin 2

Comments refer to SEA and AA documents, as DG12; Requests a full AA is completed in order to assess impacts on cSAC.

Response:

As DG12.