

2.0 Context

Critical to the preparation of an LAP that promotes sustainable development is gaining a comprehensive understanding of the local social, economic, cultural and environmental circumstances. The following sections seek to outline the research undertaken whilst preparing the Loughmacask LAP and, in doing so, provide an understanding of the issues to be addressed during the development of the LAP area.

2.1 Consultation

The initial stage of preparing the Loughmacask LAP involved a period of public consultation with the aim of informing the plan through the engagement of the local community.

Following the announcement of the intention to prepare the LAP through public notices in local newspapers and on local radio stations, an Issues Paper was made available on the Kilkenny County Council's website. Thereafter, stakeholder and public consultation meetings were held and submissions were called for from groups and individuals throughout the community.

Stakeholder Consultation

A series of Local Stakeholder meetings were held with representatives from the following sectors:

- Local Business and Community Groups
- Education, Sports and Recreation
- Heritage, Environmental and Youth
- Landowners

By dividing the stakeholders into different interest groups the Consultant Team were able to have more focused meetings dealing with key issues of the individual local stakeholders. The purpose of the meeting was to invite local stakeholders to share their suggestions, ideas and expertise with the Team.

Public Consultation Meeting

A Public Consultation Meeting was held with the aim of informing the public about the LAP and complementing a public call for pre-Plan submissions. The public meeting was commenced with an introduction to the plan making process and the various stages involved throughout the LAP, followed by an opportunity for both 'open forum' and 'informal' discussions. The forums were structured around the following four themes:

- Connections and Movement
- Environment
- Lifestyle
- Social Infrastructure



Summary of Written Submissions

Kilkenny County Council received 16 written pre-Plan submissions to the Loughmacask LAP. Below is a summary of the main issues raised:

Environment and Heritage:

- Preservation and protection of Lough Macask
- Preservation of mature trees
- Wildlife protection
- Occurrence of flooding to the east and west of Lough Macask

Traffic and Movement:

- Traffic congestion on Tullaroan Road and **Granges Road**
- Design and layout of Inner Relief Road
- Safety concerns regarding Lough Macask

Facilities and Services:

- Need for improved sports and recreation facilities
- Need for timely delivery of social infrastructure with new developments
- Need to increase provision of sewage infrastructure
- Insufficient capacity in local schools to cope with increase in population
- Need to increase and improve community facilities

Residential Developments:

Concerns raised over effects of large scale developments on existing city and environs



2.2 Landscape and Heritage

2.2.1 Landscape

Landscape Character and Views

The landscape of Loughmacask area is characterised by distinctive landscape features and a unique setting; the LAP area is enclosed by the wooded Breagagh Valley to the south, the historic city of Kilkenny to the southeast and rural agricultural landscape to the west and north.

The landscape surrounding the LAP area to the west is rural in character, with field hedgerows forming the dominant structural element. To the north the land slopes upwards to the townlands of Oldpark and Coolgrange. To the south, near Kilcreen, the land slopes at a very gentle grade towards the Breagagh Valley.

The topography of the area has a gentle undulating form which is derived from the underlying karstic landscape. The landscape around Lough Macask slopes to form a shallow basin in which wetlands are located.



Lousybush Lane

Agricultural processes have shaped the present structure of the landscape; the influence of farming is manifest in the field patterns and boundaries with large fields at Kilcreen and Bishop's Demesne. The edges of Lousybush Lane are defined by limestone rubble walls built in the local vernacular style. The fields to the west and south west of Lough Macask are bordered by mature hedgerows.

Another notable characteristic of the local landscape is the parkland setting associated with Ayresfield house which includes both mature trees and boundary hedgerows. Ayresfield is located along the Dunningstown Road to the south-east of the LAP lands.

The LAP area affords long views from the southeast,



St. Canice's Cathedral

Geology, Hydrogeology and Hydrology

According to the Geological Survey of Ireland (GSI) mapping, the Loughmacask LAP area is underlain by both the Ballyadams and Clongrenan limestone formations. These formations are principally clean coarse karstic limestones with clay wayboards. Numerous features, such as large springs, swallow holes, underground drainage and deep water tables, occur within the karst landscape.

Mapping shows that the bedrock within the LAP area is overlain by a regionally important sand and gravel aquifer of good development potential, categorised as being of high vulnerability

The Breagagh River flows along the outer side of the LAP area's southern boundary. The southern portion of the LAP area forms part of the Breagagh limestone catchment area, which has a characteristic underground and surface drainage system. Two principal tributary streams drain the Breagagh catchment. One of these streams, which discharges into a small lake in the grounds of Kilcreen Lodge, runs along a north south axis to the west of the LAP area. According to documentation held by the Office of Public Works (OPW) on the River Breagagh catchment, this stream is referred to as the Northern Stream and is fed substantially from underground springs.

In 2005 the Environmental Protection Agency (EPA) classified River Breagagh (River Code 15/B/02), stretching from Aughtananny to the confluence with the River Nore, as being moderately polluted (Biological Quality Rating – Q3). This likely due to agricultural activity in its upper reaches and sewage in its lower reaches at Kilkenny City. As part of the 2002 Nore Flood Relief Scheme contaminated sediments were removed from the River Breagagh to encourage rejuvenation of the river as a site for local fisheries (Lamprey, Trout, Salmon and Eel).

The Breagagh River is a tributary of the River Nore, a candidate Special Area of Conservation (cSAC). The River Nore flows to the east of the LAP area at a distance of approximately 1.2 km.

Given the lack of surface water drainage conduits within the Loughmacask LAP area, it appears that groundwater plays a key role in the hydrological functioning of the area, and in particular, that of Lough Macask pNHA. Other than Lough Macask and a small artificial pond along the southern boundary of Kilcreen Lodge, there are no other major surface water features in the LAP area.



North West views of Loughmacask Lake

2.2.2 Biodiversity

Lough Macask

The Lough Macask is a proposed Natural Heritage Area¹ (pNHA) and represents a future development parameter in terms of the need for its appropriate future management, conservation and improvement. While the site has been greatly compromised in recent times, it nevertheless remains important for biodiversity in an intensively managed landscape and is considered of importance in a county context. Supporting its importance, the site also has valued amenity and educational potential, which can be utilised by existing and future residents living in the immediate vicinity and the wider city area.

Identifying and maintaining the hydrological functioning of Lough Macask pNHA will be critical to the sustainable development of Loughmacask. The small wetland has a good diversity of plant species, from pure aquatic species to marginal wetland species in the flood zone. Some species present are typical of those found in a turlough. The status of the lake, in terms of its hydrological functioning, is currently being investigated by means of a Hydrological Survey. Wildfowl use the site at various times throughout the year and the presence of dragonflies' has also been recorded in recent times

Lough Macask, which is considered to be of county significance, is severely compromised with cattle having complete access, resulting in heavy poaching and nutrient enrichment. There is potential for enhancing the management of the area surrounding Lough Macask and, in doing so, enhancing the biodiversity value of the area.

Hedgerows and other localised habitats

The other habitat features of the LAP area include the field boundary hedgerows which are in the main located to the west and south west of the Lough Macask pNHA. Their average heights range between 6-7 metres and some small trees (primarily ash) are present. Hawthorn is the principal hedge species while ivy is also frequent. Further hedgerows of moderate quality exist in the vicinity of Ayresfield House. All of these hedgerows are of biodiversity value in a local context.

Scattered trees and parkland occur at Ayresfield House. The trees present are typical demesne species, notably lime, beech and horse chestnut. An ecological investigation has concluded that some of the trees are of considerable maturity and could be expected to support bat roosts.

¹ Designated by the Department of the Environment, Heritage and Local Government under the Wildlife (Amendment) Act 2000.



2.2.3 Heritage

Archaeological Heritage

Given its proximity to Kilkenny City, the Loughmacask area contains a number of significant archaeological features, which indicate human activity dating from the late Bronze Age. These include six archaeological sites recorded in the national Record of Monuments and Places (refer Appendix D, Preliminary Archaeological & Architectural Assessment).

Through the combination of terrain potential assessment and an examination of the type, density and distribution of the archaeological sites within the landscape, general areas of archaeological potential have also been identified, as has a previously unrecorded possible enclosure in the Loughmacask townland.

Historically, the extent of the Lough Macask water body has been larger. This indicates the area is one of considerable archaeological potential. A second area at Bishop's Demesne and Kilcreen is also considered an area of archaeological potential due to its proximity to the River Breagagh and the occurrence of five recorded RMP sites.

Architectural Heritage

The LAP area does not contain any existing recorded protected structures, however it does neighbour the Kilcreen Lodge, which is of regional importance. The famous brewing Smithwick family of Kilkenny built Kilcreen Lodge c. 1860 in a contemporary Victorian style. The curtilage of the lodge and the stone walled avenue leading to the Lodge forms part of the southern boundary of the LAP area and was once also the borough boundary as indicated by a plaque dated 1844.

Notwithstanding the above, studies carried out during the preparation of the Loughmacask LAP identified seven sites of architectural significance within the area. For the most part, these architectural sites are upgraded cottages or farm buildings. They have most likely been built in the Irish vernacular tradition; a style that has been adapted by simplifying formal architectural styles, and built using local methods and materials.

Sites vary from small vernacular dwellings to larger sites of a relatively more complex layout. The variable layout and style of these buildings highlights the various levels of society that could be found in this rich agricultural landscape — ranging from farm labourer to landowner. The style, structure and size of the buildings indicate the levels of affluence that were to be found within the area.

The LAP area is also bordered by the Butts, which is a typical example of late 19th, early 20th century local authority housing comprising terraces of small single and two storey houses. These terraces were typically built on the outskirts of towns and cities and are models of the earliest public funded houses.



The Butts from Kilcreen Lodge

2.3 Population projections

A committed focus of the Kilkenny County and Borough Councils' is providing for and achieving balanced growth and development of an economic, physical and social environment. In light of a review of the current County Development Plan 2002-2008 and the recent release of Census 2006 population figures, indicative target population figures for the County and its key settlement areas provide a reliable framework for population projections as part of the Loughmacask LAP. In particular, the target population set out in the Loughmacask LAP provides for and facilitates the County Development Plan Settlement Strategy goals of achieving a balanced and coherent urban form whilst providing for the needs of existing and future residents.

On a national basis, there is a growing relationship between overall urban share of population and economic growth. The National Spatial Strategy (NSS) Review Paper presents the South East Region as one of the fastest growing regions in Ireland.

Key settlement areas of the South East region, primarily located along the north east fringes, have in recent years experienced significant economic and social growth changes. Proximity to the Dublin Region has been a primary factor contributing to these changes, with commuter communities establishing within centres including Carlow and Wexford.

The region's population is expected to continue to grow and the identified drivers for change include the strategic economic, infrastructural and social strengths of the urban centres of Waterford, Kilkenny and Wexford.

Kilkenny's strategic position within the South East Region is evidenced by its continued economic growth. Attributable factors to this include development of the financial services and healthcare sectors, which have in turn facilitated a growing population, particularly within the Kilkenny City and Environs area.

The 2006 Census of Population estimated the number of person's resident within Kilkenny City and Environs in 2006 to be 22,179, representing an increase of 6.9% from its 2002 figure of 20,735. For the same period, the County population increased from 80,339 in 2002 to 87,394 in 2006, marking an 8.8% increase.

Table 2.3a Population Change in South East Region Counties, 2002-2006

Area	2002	2006	% Change
Carlow	46,014	50,471	9.7%
Kilkenny	80,339	87,394	8.8%
South Tipperary	79,121	83,052	5.0%
Waterford	101,546	107,942	6.3%
Wexford	116,596	131,615	12.9%
South East Region	423,616	460,474	8.7%

Source: Census of Population 2006 Preliminary Report. Central Statistics Office (CSO) and South East Regional Planning Guidelines, 2004-2020. South East Regional Authority

Table 2.3b Population Change of Primary Settlement areas of the South East Region, 2002-2006

Settlement Area	2002	2006	% Change
Waterford City & Environs	44,594	45,775	2.6%
Kilkenny City & Environs	20,735	22,179	6.9%
Carlow Town & Environs	13,218	13,898	5.1%
Wexford Town & Environs	9,449	8,931	-5.5%

Source: Census of Population 2006 Preliminary Report, CSO and Draft Kilkenny County Development Plan 2008-2014.

Kilkenny City and Environs is identified as by far the largest urban growth centre within the South East. Growth and development is expected to continue into the future with a predicted population target of 30,000 persons by 2020 for the City Environs area. This indicative figure is underpinned by areas classification as an economic 'hub' whereby it will provide important regional bases for foreign direct investment projects, indigenous industrial and service activity and the provision of essential local facilities and amenities in areas such as public services, education and healthcare (NDP, 2007-2013, pp75).

The 2008-2014 Draft County Development Plan's Development Strategy envisages the establishment of a compact urban form for the Kilkenny City and Environs area. Loughmacask is identified as a key area that will accommodate future growth and, by way of creating new neighbourhoods with ancillary services and facilities within close proximity to the city centre, will assist in achieving the Development Strategy.

Household Sizes

The average household size within Kilkenny has fallen through the years. In 2002, the average house size was 3.04 while in 2006 it reduced to 2.95. In 2006 the national average household size stood at 2.9.

Within Loughmacask LAP a hierarchy of densities, ranging from 15 to 40 units per hectare, will be provided to offer greater choice of location and diversity to the City's population. Using the current household size of 2.95, it is estimated that approximately 1540 units will be provided over the lifetime of the local area plan, providing for a population of up to 4,500 persons.

2.4 Social and cultural wellbeing

Population growth will result in ongoing effects on the social and cultural wellbeing of the community in and around Kilkenny City. As the resident population grows, demand for employment will increase, as will the need for education and recreation facilities in the community. Development of the Loughmacask area has the potential to assist in relieving pressures facing the community by providing the appropriate social and cultural infrastructure required to facilitate a healthy society.

Housing

Adequate provision of housing numbers and typologies (densities) has been calculated from population projections. In terms of household sizes, the national fall in average household size has been examined and utilised as an indicator of requirements for the Loughmacask LAP area.

An analysis of neighbouring housing densities has been undertaken to ensure planning and development that is sensitive to its surroundings. The need for high density has not been found, rather, it is considered that it is appropriate that housing densities should be consistent with current trends, densities and patterns.

The need for social/affordable housing, detached, semi-detached, terrace, and estate housing, have been examined to determine appropriate typologies best suited to the plan area whilst taking the overall context into consideration. Given the varying social context of Kilkenny and the surrounding environs, it is considered that a variety of typologies will be necessary within the Loughmacask LAP area, an approach that will also assist in providing a diverse and healthy community.

Social and physical infrastructure, such as open space and recreation areas, community facilities, and services, are also necessary if a vibrant living community is to develop over time. Accordingly, such infrastructure shall be implemented at the time of and along side future development.

Education

Adequate provision of pre-school, primary and secondary schools to cater for future population growth scenarios will be required within Kilkenny City and the surrounding area. While population projections for the County as a whole show a declining birth rate, and hence a decline in the number of children attending primary school, the projections for Kilkenny City and Environs show an ongoing increase in population. This increase in population will, over time, translate to an increase in children attending primary and secondary in the Kilkenny City area.

Pursuant to the National Guidelines on Childcare Facilities, community planning should seek to ensure that appropriate childcare facilities are provided that respond to the social circumstances of the area and foster childhood learning. Future development within the Loughmacask LAP area has the potential to respond the needs for childcare through the provision of appropriate facilities along side residential and commercial development.

In compiling population projections and examining relevant statistics, it has also been noted that one additional primary school may be required to cater for future population growth of Kilkenny City and Environs. Future discussion and planning will be required to identify a suitable school site if and when the need arises.



Employment

Kilkenny City benefits from many economic advantages; serving Kilkenny City including its strategic location, proximity of Belview Port, a well developed independent local indigenous business base, the city's 'Information Age Town' status, and its well-educated and skilled workforce. Its long established tourism sector complements its economic base further. Key sectors include agriculture, manufacturing, financial services, retail, construction, food processing, mining and crafts enterprises.

The 2002 Census highlighted that growth in employment opportunities within the region have not kept pace with population growth and as a result there are increasing levels of commuting to employment centres outside of the region. Development within the Loughmacask LAP area, including a village centre area, will have the benefit of providing opportunities for employment close to the homes of local residents.

Recreation and Community

Dicksboro Sports GAA Club is currently the only private sports facility providing for active recreation within the LAP area. The club, which is affiliated to St. Canice's parish, provides two grass GAA pitches as part of their facilities.

Both Tullaroan Road and Lousybush Lane are used for recreational walking; to a lesser extent the wetlands and farmlands are used for rambling and passive recreation. Other recreational facilities in the immediate adjoining area include the new playground at the Fr. Mc Grath Centre, a grass soccer pitch, outdoor handball alley and outdoor basketball court at the Waterbarracks. Use of the soccer facilities at the Waterbarracks is limited by seasonal flooding of the River Breagagh.

The Fr. Mc Grath Centre, which adjoins the southeastern edge of the LAP area, is the main provider of community facilities within the immediate vicinity of Loughmacask. The Centre provides preschool facilities, an after school homework club, internet access, adult education and training as well as facilitating local community groups including the Butt's Residence Association.

East of the LAP area, an extensive sport facility has been developed on the grounds of Loreto School, including all weather playing pitches and associated facilities and the Loreto School gym.



Dicksboro Sports GAA Club

2.5 Infrastructure and movement

Potable water supply

Kilkenny County Council currently abstracts approximately 8,000 m3 / day from the river Nore's main channel at Troyswood. This supply needs to be augmented to support development in Loughmacask. The National Water Services Investment Programme includes the upgrading of the Kilkenny City water supply. The Council is at an advanced stage of finalising the Preliminary Report and Environmental Impact statement and work on the upgrading of the water supply will commence in the next two years. In addition it will be an objective of Kilkenny County Council and Kilkenny Borough Council to reduce leakage on the existing network and to encourage environmentally sound and sustainable initiatives for water supply

Existing water supply infrastructure to the Loughmacask area consists of:

- A 100mm diameter main on the Tullaroan road:
- A 75mm diameter and 100mm diameter water mains on the Granges Road;
- A 400mm diameter main terminating at Butts Green.

With the existing water supply network coming under pressure in supply and demand; provision will be made in the area to guarantee supply of potable water. In the long term it will be necessary to either upgrade the abstraction plant at Troyswood and / or provide alternative sources and reservoir storage elsewhere. Reservoir storage could also be provided in the LAP area.

Waste Water

Foul sewage from Kilkenny City and its environs is treated at Kilkenny County Council's wastewater treatment plant at Purcellsinch. The wastewater treatment plant, which has a population equivalent capacity of 107,000, is working near capacity. The Smithwicks Brewery currently utilises 75% of the Biological Oxygen Demand (BOD) treatment capacity of the plant.

The Breagagh Valley foul trunk sewer has the capacity to service the Loughmacask area. The connection of the new drainage networks in the Loughmacask area to the Breagagh valley sewer will be necessary.

The nearest foul trunk sewer to the LAP area is the 675mm dia. Breagagh Valley sewer, which leads to the foul sewage pumping station at the Market Yard. While the capacity of the sewer offers no restriction, it will be necessary to upgrade the existing pumping capacity at Market Yard pump station. Furthermore, in the short to medium term the existing plant at Purcellsinch has capacity to meet demand. In the long term however, it will be necessary to either free up or upgrade the capacity in this plant.

Surface Water Drainage and Flooding

The Loughmacask area lands are primarily in agricultural use and drain naturally to Loughmacask itself and to the Breagagh River via underground and overground watercourses.

According to the OPW, historically flooding of the River Breagagh occurred in the Irishtown area near the junction with the River Nore and upstream in the Blackmill / Waterbarracks area. Further upstream on the Nore over-bank flooding is experienced in the floodplain on a regular basis but this does not give rise to inundation of buildings.

In the Irishtown area, flooding has been caused by water levels in the Nore backing up the Breagagh channel and inundating the low lying area both overland and through the drainage system.

In the Blackmills area, severe flooding occurred in the low-lying area of Blackmill Street bordering the Breagagh. The floodwater inundated properties between Blackmill Street and Abbey Street. The flooding problems in this area were associated with flood conditions and restrictions in the Breagagh channel and are unrelated to River Nore flows.

Flood alleviation works have been carried to a small stretch of the Breagagh as part of the Kilkenny Main Drainage Scheme.

Electricity Supply

The Electricity Supply Board proposes to double the capacity of Rosehill Station. This upgrade will increase the capacity in Rosehill Station to 20MVA and yield an additional capacity of 8 MVA. The Western Environs and other committed developments will absorb this additional capacity.

Provision should be made in the Kilcreen area for a new 38Kv station to service the estimated load from future development in the area. However, a substation may be required within the LAP area in the future.

Gas Supply

There are a number of gas mains in the Loughmacask area. However there is little spare capacity in these mains and Bord Gais have no plans at this time to reinforce the network in the Loughmacask area. However proposed works along the Callan Road will aid the supply of gas to Loughmacask.

To supply gas for the full development in Loughmacask area it is anticipated that the laying of a new 250mm PE 4bar gas main along the Inner Relief Road will be required.

Telecommunications

The Loughmacask area is partially serviced by Eircom's fixed line phone service. However, the existing networks have little spare capacity and Eircom have no short-term plans to reinforce the networks.

The Kilkenny Metropolitan Area Network (fibre optic network) and ESAT BT fibre routes run along Grange Road. There would be considerable interest in extending these into the heart of the development area. Wireless broadband services in the area are also being provided by a number of other companies.

Roads

Loughmacask is currently accessed via the Tullaroan and Grange Roads. There are some 27,000 truck and other heavy goods vehicle (HGV) movements per annum to the Grasslands Fertilisers plant alone. Quarrying activities at Holdensrath generates further HGV traffic.

Inner Relief Road

The current alignment for the Inner Relief Road (IRR), as shown in the Kilkenny County and City and Environs Development Plan, shows the new route running on the western side of the city, connecting the N76 Callan Road to the R693 Freshford Road south of the townland of Talbotsinch. The route will run through the Loughmacask plan area and will include a new east – west link to join the Water Barrack Roundabout. Dean Street will be upgraded and a new river crossing will be established at the eastern end of Dean Street. This will provide a link to Wolfe Tone Street and will then run through the Livestock Mart Site to provide access to the N77 Castlecomer Road.

It is envisaged that the IRR will be implemented in phases, with the first phase between N76 Callan Road and R695 to be completed by 2010. The remainder of the IRR will be implemented in phases over the Plan period. Kilkenny County and Borough Council envisages that the IRR will reduce city centre congestion and improve access to key development sites such as the Western Environs, the Mart Site and McDonagh Station to the east of the city.



Tullaroan Road

Other Road Improvements

The Inner relief Road will be complemented by the construction of the following road improvement and traffic management schemes:

- N10 N77 Ring Road Extension; (commenced)
- The Johnswell Road to Hebron Road link (Pennyfeather's way)
- Traffic management scheme in the John's Green area
- The change in status of the N77/New Road junction from traffic signals to a roundabout;
- The change in status of the N77/Barrack Street junction from a priority junction to traffic signals.

The following proposed road improvement schemes are expected to be in place by 2008:

 Upgrading of the Ring Road Extension approach roads, including the widening and realignment of Johnswell Road, Hebron Road and New Orchard Road to the intersections with the N77 Ring Road Extension; Improvements to the junction of Bohernatounish Road junction with the N10 Ring Road; (commenced)

The capacity of the road network was most recently analysed to facilitate the design of the Inner Relief Road. The following conclusions that are pertinent to Loughmacask were derived:

- The full Inner Relief Road is required if the committed development outlined above is to be fully realised
- The Water Barrack Roundabout will have minor capacity problems if the committed development outlined above is fully realised

Public Transport

The Loughmacask LAP area lies at the periphery of Kilkenny City and, subsequently, within close vicinity to existing public transport networks. Given the nature of development over the lands to date, no public transport routes have been set down over the area. Notwithstanding this, the extension of existing routes to encompass the area as population grows is plausible.



R693 Dunningstown Road

2.6 Grassland Fertilizers Seveso Site

The E.U. Directive 96/82 EC (known as the Seveso II Directive) of 9 December 1996 was introduced into Irish law through statutory instrument; the EC (Control of Major Accident Hazards Involving Dangerous Substances) Regulations (S.I. No. 476 of 2000). The Directive aims to prevent major accident hazards involving dangerous substances and chemicals and the limitation of their consequences for man and the environment.

These must be pursued through controls on the following:

- The siting of new establishments;
- Modifications to existing establishments; and
- Development in the vicinity of an establishment which which by virtue of its location and type is likely to increase the risk or consequences of a major accident.

At present there is one Seveso II site within the Kilkenny City & environs; Grassland Fertilizers (Kilkenny) Ltd Palmerstown, on the Tullaroan Road in Kilkenny.

It is an objective of the local authorities to reduce the risk and limit the consequences of major industrial accidents by, where appropriate, taking into account the advice of the Health and Safety Authority when proposals for development as outlined above are considered.

Grassland Fertilizers – Irish Health and Safety Authority Advice

Grassland Fertilizers is an Irish enterprise producing fertilizers for a range of farming enterprises. The company's industrial site is located to the south of Tullaroan Road on the western side of the LAP area. Currently the Grassland Fertilizers site is surrounded by agricultural lands.

Grassland Fertilizer produces ammonium nitrate fertilizer, which has the potential to result in noxious fumes and explosiveness if caught in a fire. Given the nature of the activities undertaken by Grassland Fertilizers, Kilkenny County Council requested land use planning advice from the Irish Health and Safety Authority (HSA) to assist in the preparation of the Loughmacask LAP.

The resultant report (entitled 'Land Use Planning Advice for Kilkenny City Council in relation to Grassland Fertilizers (Kilkenny) Ltd at Palmerstown' and dated 20 October 2006) determined risk zones in relation to major potential accidents that have the potential to occur over the Grassland Fertilizers site and gave advice in regard to suitable future development for those zones (See Fig. 5).

The HSA has considered the potential risk to people within the surrounding area of the site should such an event occur, and has advised the following development parameters. (to be read in conjunction with figure opposite)

Should it be confirmed that Grassland Fertilizers and D Walsh & Sons will vacate their site in the future, the Councils shall, through a review of this LAP, give due consideration to the rezoning and use of the lands currently zoned for industrial purposes and the adjoining open space lands affected by the Seveso directive. Such consideration may include the potential use of the lands for residential purposes and/or local commercial uses, provided that the existing industrial uses have not compromised such future uses.

Table 2.6 – Development Parameters around the Grassland Fertilizers site

Zone 1	Limited to existing development.
Zone 2	Advise against residential, office and retail. Permit occasionally occupied development e.g. pump houses, transformer stations. Consult with HSA re Industrial development.`
Zone 3	Permit workplace development. Permit residential densities from 28 to 90 persons per hectare, density increasing as risk decreases across the zone and in developed areas, and 22 to 70 persons per hectare in less developed areas. Permit modest retail and ancillary local services. Advise against shopping centres, large scale retail outlets, and undue concentration of restaurant and pub facilities.

