8 Infrastructure and Environment

8.1 Transport
The principal transport aim of Kilkenny Borough Council and Kilkenny County Council is to develop an efficient, sustainable and integrated multi-modal transport and communications system facilitating the movement of people, goods and services in the City and Environs. This is essential for the economic and social development of the City, its Environs and the county as a whole.

Different types of land uses, by facilitating economic activity, will give rise to demands for travel and transport provision. Equally the provision of transport services will give rise to changes in land uses. In its transport policies and objectives, Kilkenny Borough Council and Kilkenny County Council will seek to reduce the reliance on private motor vehicles and will promote an increased use of public transport, walking and cycling.

8.1.1 Climate Change
The Council has had regard to the National Climate Change Strategy (2007-2012) in framing its policies and objectives in this Development Plan and will seek to play its part towards the achievement of the national targets set out in therein. Two principles as espoused in the NSS have been applied to reduce transport-related energy consumption;

- The formulation of a settlement strategy which is intended to guide urban and rural settlement patterns and communities to reduce distance from employment, services and leisure facilities and to make use of existing and future investments in public services; including public transport.
- Maximising access to, and encouraging use of, public transport, cycling and walking.

In addition, the Councils support of renewable technologies and encouragement of more sustainable energy-efficient building methods will further reduce our dependence on non-renewable energy sources. All new development must allow for Climate Change as set out in the GDSDS Technical Documents, Volume 5, Climate Change, and must take proper account of its potential effects on the existing flood regime where necessary.

ACTION
The Councils will prepare a County Climate Change Action Plan over the course of this Development Plan.

8.2 Roads
A road and street hierarchy is essential in order to classify the function, shape and use of all roads and streets in the city. The City Centre Local Area Plan established a road and street hierarchy for the city centre which defines the function, shape and use of all roads, streets, lanes and slips. This hierarchy will form the basis for determining appropriate forms of traffic management.

The classification is based on criteria such as the available road and footpath space, the desirable and necessary volume of traffic, the potential pedestrian and cycle volumes, the surrounding environment and urban form and the destination of traffic on the route.
In broad terms the classification in Kilkenny City can be described as follows:

Table 8.1: Classification of Streets within Kilkenny City

<table>
<thead>
<tr>
<th>Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distributor Road</td>
<td>Key routes generally providing both vehicular and pedestrian access to the City Centre or providing linkage around the City Centre</td>
</tr>
<tr>
<td>Primary Streets</td>
<td>Routes providing access to main car parks and main delivery routes and also carrying high pedestrian volumes</td>
</tr>
<tr>
<td>Secondary Streets</td>
<td>Predominantly providing local access for vehicles and potentially carrying relatively high pedestrian volumes</td>
</tr>
<tr>
<td>Pedestrian Thoroughfares</td>
<td>Links with high levels of pedestrian activity that are not serving as key vehicular routes</td>
</tr>
<tr>
<td>Laneways</td>
<td>Limited vehicular access routes serving as secondary pedestrian routes</td>
</tr>
<tr>
<td>Slips</td>
<td>Pedestrian only routes usually characterised by stepped formation</td>
</tr>
</tbody>
</table>

See Variation Maps 4.1 and 4.2 illustrate the hierarchy of the road network in the City and Environs both in terms of the existing road network and strategic road proposals. The Inner Relief Road, Eastern Ring Road, Western Ring Road and North Link Road are the strategic routes that will have a significant impact on traffic flow in the City.

The road and street hierarchy maps of the City Centre LAP illustrate the objective of pedestrianising High Street, and St Kieran’s Street, which are existing pedestrian thoroughfares.

8.2.1 Road Objectives
It is the objective of the Kilkenny Borough Council and the Kilkenny County Council to:

a) Reserve free from development the line of the proposed inner relief road and to complete the inner relief road within the plan period; (R1 on the zoning objectives map)
b) To reserve free from development the proposed line of the western by-pass for the city from the Castlecomer Road to the Callan Road including for a river crossing. (R2 on the zoning objectives map)
c) To reserve free from development the proposed line of a new road link from the Callan Road to the Waterford Road roundabout. (R7 on the zoning objectives map).
d) Continue to implement the recommendations of the cycle routes study for the City & Environs as resources and finance permit.
e) To complete the N10 Road Improvement Scheme from Dublin Road Roundabout to Leggettsrath Roundabout (R3 on the zoning objectives map)
f) To complete the R697 Kells Road Improvement Scheme from Upper Patrick St. to the Kells Road Roundabout (R4 on the zoning objectives map)
g) To complete the N10 Ring Road Improvement Scheme from the Dublin Road Roundabout to the Waterford Road Roundabout. (R3 on the zoning objectives map)
h) To complete the Golf Links Road, New Orchard Road and Lovers Lane Improvement Scheme
i) Complete the Pedestrianisation of Kieran St. (from Parliament Street to Rose Inn Street);

j) Pedestrianise High Street from Friary Street junction to its junction with Kieran Street;

k) Implement a traffic management scheme for Upper New Street, Jacob Street and Upper Patrick Street.

l) To prepare and implement traffic management and calming schemes for the City & Environs as the need arises.

m) Complete a traffic calming scheme for the Castlecomer Road.

n) Provide appropriately designed pedestrian crossing points at all schools in the City & Environs within the Plan period.

o) Promote the diversion of heavy through traffic via the eastern by-pass;

p) Introduce charges for on-street parking within the city centre;

q) Provide suitable arrangements for Coach parking within the City and Environs;

r) Facilitate the provision of approved bus stops and shelters within the City and Environs as the need arises;

s) To provide a pedestrian bridge over the Nore at the Carnegie Library.

t) Where roads infrastructure is provided to accommodate future development, to require contributions from developers who benefit from such works;

u) To ensure that adequate footpaths, public lighting and cycle paths are provided in newly developing areas;

v) To ensure that all new footpaths are dished at junctions wherever feasible and that tactile surfaces are used where appropriate to assist the visually impaired;

w) The development of the lands located at R6 (known as the Murphy machinery lands) to be dependent on access from the link road from the N9 to the Outrath road.

x) To complete the John’s Bridge Rehabilitation Scheme

y) To complete the Ballybought Street Improvement Scheme

z) To complete the Glendine Road Improvement Scheme

aa) To complete the Newpark Drive Improvement Scheme

**8.2.2 Gateways**

The centre of the city is an area of high pedestrian activity and, to a lesser extent, cyclist activity. In the context of the historical form and predominately narrow streetscape, the movement of pedestrians and cyclists should, in overall terms, take precedence over the movement of vehicular traffic. However it must also be recognised that the movement of some types of vehicular traffic trips are essential for the continued economic consolidation and growth of the city centre. In particular, vehicular trips to car parks for deliveries and for public service vehicles and private coaches must be catered for in a manner that is compatible with pedestrian and cyclist movements.

In order to cater for these partially conflicting slow mode and vehicular movements, in the context of the roads and street hierarchy, a series of Gateways will demarcate the city centre streetscape within which vehicular movements will be restricted and will cater only for vehicular trips that have a destination in the city centre. The Gateway locations are indicated on Map 2.4 of the Kilkenny City LAP and will be defined by a variety of urban design and traffic management schemes some of which already exist.
8.2.3 Pedestrian/Cycle Movement

8.2.3.1 Cycle routes
Kilkenny is a relatively flat and compact City with a significant proportion of its population living within 2 kilometres of the City Centre. These characteristics contribute towards making Kilkenny City an ideal location for commuting to work or school by bicycle. A unique opportunity also exists in Kilkenny to promote leisure cycling, by the creation of high quality cycle routes linking places of local and national interest.

During the period of the last plan a Pedestrian and Cycle Network Study was commissioned and completed by the local authorities. Based on this Study, undertaken in 2001, a cycle network has been developed for the City linking the outlying residential areas to the major trip attractions, namely educational, commercial, leisure and community facilities. This cycle network is indicated on Map 2.5 of the Kilkenny City LAP incorporating routes outside of the City Centre.

Key to the delivery of a successful cycle network is the provision of a complete supporting infrastructure. This includes providing secure cycle parking facilities at popular destinations such as The Parade, Johns Green, Bateman Quay and High Street and within the Specific Development sites.

POLICY
Implement the recommendations of the Kilkenny City & Environs Cycle Routes Study as resources and finances permit as part of the transport strategy for the City & Environs.

8.2.3.2 Pedestrian movement
In general terms, new and upgraded main pedestrian links should be provided based on the following principles:

- Connected: Linking the places where people want to go.
- Convenient: Direct routes should follow desire lines, with easy to use crossings.
- Comfortable: Good quality footways with adequate widths and free of obstructions.
- Convivial: Attractive, well lit and safe, with a variety of landscaping and views along the route.
- Conspicuous: Easy to follow routes with helpful signage.

These principles should be broadly applied to both existing and new main pedestrian links within the City in order to optimise accessibility to, from and within the City Centre. Outside of the Gateways, pedestrian links are provided on traditional footpaths spaces. These form key links to and from the City Centre and are fundamental to the
principle of providing accessibility to all. The improvements to existing links and the
development of new links within the boundary of the Local Area Plan provide the
template for developing links out into the Environs from the City Centre through the
Gateways. In particular, the development of these external links should be incorporated
into the master planning of new western and north-western environs.

The City Centre, within the Gateways, contains the core retail area and main tourist trails
and therefore must provide an overall priority to pedestrians. This priority can take a
variety of forms and following the completion of the Inner Relief Road the
pedestrianisation of St Kieran's Street, and High Street, from Friary Street to St Kieran's
Street, can be delivered. A key element of new linkages is the provision of pedestrian and
cycle linkages on both the east and west bank of the river. These will serve as both
amenity routes and access routes to the City Centre. As amenity routes, they will form
part of long distance amenity routes along the Nore. Within the urban area of the City
they will provide ideal short and longer distance walking routes along the river
incorporating the existing bridges, the Inner Relief Road Bridge, and new pedestrian
bridges at John's Quay and to the south of John's Bridge. These links will form part of
the Bateman Quay and County Hall sites and will open up new vistas of the City and in
particular the Castle.

8.2.4 Car Parking
Within the city centre public car parking is provided both on and off street. Car parking
inventories carried out during the preparation of the Local Area Plan indicated that there
were approximately 1,400 free or daily rate parking spaces within or on the periphery of
the city centre.

POLICY
- Seek the provision of well located car parking spaces, multi storey car
  parking being the preferred option and to ensure that adequate and
  convenient car parking spaces are provided;
- To ensure, through price control measures, that the city centre car parking
  spaces are for short stay purposes
- To provide and control the development of parking for both long and short
  term parking demand that optimises the use of all spaces.

Public parking within the boundary of the Local Area Plan will mainly be reserved for
short-term parking, which will be subject to a tariff system.

8.2.5 Bus Services
Bus services in the City must be considered in the context of the various forms of
services that operate in the City. These are as follows:
- City and Environs services
- Hinterland services
- Inter city services
- Coach tours
- School bus services
POLICY

- To investigate the establishment of a Transport Forum to oversee transport policy for the city and county, in conjunction with the County Development Board.
- To facilitate the provision of bus shelters as appropriate.

8.2.5.1 City and Environs Services
At present the City and Environs are served by a nominal service. Within the context of the potential growth in population there is potential for the urban area to be served by scheduled services. This potential is the subject of a detailed investigation, in order to ascertain the overall viability and scale of the service in accordance with the City Centre Local Area Plan.

8.2.5.2 Hinterland Services
The City is presently served by a number of services from various towns within the county. These services by and large set down and pick up passengers at The Parade. In addition these services use the bus bays at The Parade as a stop-over facility. These services are an integral part of the transport system for the City and County. Proposals for the future provision for these services in the vicinity of The Parade are outlined in the Urban Design Framework for The Parade. This went through a Part VII planning procedure in 2006.

8.2.5.3 Inter City Services
The City is served by both private and state operated services. The state services operate from the McDonagh station site whilst private services generally operate from The Parade. Ideally these services should operate from a joint facility for a number of reasons including:

- The development of a transport hub for all intercity bus and rail services.
- The proximity of the rail station to the national road network
- The preclusion of the requirement for bus services to travel on the street network within the City Gateways.

8.2.5.4 Coach tours
Coach tour buses are generally facilitated at the larger hotels or in the vicinity of the main entrance to Kilkenny Castle. The vicinity of the Castle entrance should only be used for the purposes of set down and pick up whilst stop over facilities should be provided elsewhere.

8.2.5.5 School Services
School services are generally well served in the City, either adjacent individual schools or in bus bays such as the facility on Gaol Road. These services provide a vital social need and should be accommodated for the convenience and safety of students.
8.2.6 Taxi Services
Taxis serve as an integral part of the City's transport network and their role will grow as the City and Environs grow. It is critical that the City is facilitated with adequate taxi services that are readily available at peak demand periods. In this context the provision of taxi services is to be facilitated in terms of providing taxi ranks and 'pick up' and 'set down' facilities. Furthermore transport objectives must be tailored to accommodate taxi services.

Taxi ranks are designated at present on The Parade and in Johns Street between 8 p.m. & 8 a.m. Taxis are also available at Bateman Quay and Canal Square.

8.2.7 Signage
The City Centre Local Area Plan looked in some detail at 'Directional and Explanatory Signage Strategy' for the City and gave a framework for the commissioning and implementation of a comprehensive Signage Scheme.

The overarching objective of any Signage Scheme is to provide clear, concise and consistent directional signage for vehicular traffic and clear, convenient and discrete signage for pedestrian traffic.

POLICY
To prepare a comprehensive Directional and Explanatory Signage Scheme for Kilkenny City & Environs during the lifetime of this Plan, in line with objectives in the Kilkenny City Local Area Plan.

The Signage Strategy for vehicular traffic can, by and large, be considered separately for traffic entering and traffic leaving the City Centre. The overall aim of the Signage Strategy should be to direct traffic to the main public car parks and to direct exiting traffic to key routes and external destinations from the point of exit from these car parks. The Pedestrian Signage Scheme should be based on directing pedestrians within the City Centre area to the main tourist attractions, amenity walking routes, public buildings, main retail areas and main public car parks.

A crucial element of the Signage Strategy is to strike a balance between the provision of an adequate but discrete amount of directional information, preferably based on a series of walking trails around the historic core and along the river corridor that will help visitors to discover the historic and amenity attractions in an informal manner.

8.2.8 Rail
Journey speed is a key factor in choosing rail travel over other modes of transport. In the past rail services in the South-East did not offer significant time savings compared to travel by bus or private car.

The Regional Planning Guidelines (2004) identified a need for the upgrading and redesigning of services between Waterford, Kilkenny, Carlow and Dublin to include additional services throughout the day coupled with early morning and late evening trains so as to facilitate business users.
Kilkenny City is connected to the Dublin/Waterford line by a spur from Lavistown to the Railway Station on the Dublin Road.

Major investment has taken place with the completion of network resignalling on the Dublin to Waterford intercity line. This improved journey times and safety across the network. Further investment will come on stream with the provision of new rolling stock and this will allow improved service frequencies on a phased basis on all intercity routes. Delivery of these units began in March 2007 and will continue until mid-2008.

Under this investment programme by Iarnród Éireann it is envisaged that there will be enhanced rail services on the Dublin to Waterford intercity route, with two hourly services during the day. This will allow for improved passenger facilities, in particular commuter and tourist services, which will help to facilitate economic growth and assist in the sustainable development strategy for the City and its Environs and the county as a whole.

**POLICY**

- Seek the improvement of services to and from Kilkenny City in particular the provision of commuter services between major urban centres and towns within the county, the region and to and from Dublin City for the benefit of the commercial and tourism sectors.
- Seek to implement the South-East Regional Passenger Transport Strategy 2002-2012.

### 8.2.9 Airports

The Council recognises the importance of air travel in improving the attractiveness of the city and county for industrial, commercial and tourism development. The South-East Regional Airport is located close to Tramore Bay, about six miles by road from Waterford City centre. Aer Arann operates commercial service to the UK and France. The Irish Coast Guard operates an air/sea rescue service from the airport. The Councils recognise that Waterford Airport is a valuable asset to the South East region and must be developed to ensure that the South East Region has a viable regional airport. This is important if enhanced regional accessibility to air services is to be provided. To develop the Regional Airport into a strategic asset, the following key components are required:

- The extension of the existing runway to accommodate larger aircraft,
- Improved transport linkages and services between the airport, and the entire South-East Region, i.e. roads and public transport,
- Additional operators offering services from this location.

There is an aerodrome located three miles to the west of Kilkenny City. It is a privately owned public use airfield. Principally it has a leisure use but it does have potential for expansion.
POLICY

- Support the continued development of airport facilities and services at the South East Regional Airport and Kilkenny Aerodrome to the benefit of industrial commercial and tourism development.
- Support the improvement of transport linkages and services between the airport and the entire South-East Region, i.e. roads and public transport.
- Facilitate the future development of Kilkenny aerodrome by reserving air corridors as necessary.

8.3 Energy and Telecommunication Facilities
The availability of energy is of critical importance to facilitate new development. The National Development Plan 2007-2013 sets out policies for the provision of electricity from both renewable and non-renewable sources.

8.3.1 The National Grid
In support of sustainable development and efficient energy utilisation, the Councils recognise and support all energy source providers in the development of a suitable network in the South-East region capable of sustaining the scale of development proposed for the region.

8.3.2 Gas
Industry needs efficient, reliable, cost effective and environmentally friendly energy. The extension of the natural gas pipelines to the centres of industry and commerce will be an extra boost to the economic growth of the region.

8.3.3 Renewable Energy
The development of renewable energy sources is a priority at national and European level for both environmental and energy policy reasons. The Councils strongly support national and international incentives for limiting emissions of greenhouse gases and encouraging the development of renewable energy resources. The planning and land use policies in the development plan are intended to promote efficiency in the use of energy, transport and natural resources.

8.3.3.1 Kilkenny Sustainable Energy Forum
The Kilkenny Sustainable Energy Forum was set up in early 2007, as the result of an action identified under the County Development Board Strategy 2002-2012. This Forum is composed of various statutory bodies, non-governmental organisations and industry and construction representatives, amongst others. The Forum aims to promote the use of sustainable energy in Kilkenny, by supporting sustainable energy initiatives, providing best practice examples and through advocacy.
8.3.3.2 Carlow-Kilkenny Energy Agency
The Carlow Kilkenny Energy Agency was established to provide sustainable energy information, support and services to the people of Carlow and Kilkenny, to local businesses and community groups and to the Local Authorities. The objectives of the Agency are achieved through five focus areas:

1. Energy awareness and dissemination campaigns
2. Energy Management for the Councils
3. Energy efficiency and renewable energy projects
4. Sustainable energy training
5. Energy Policy Development

**POLICY**

- Work with all relevant agencies to support the development of alternative forms of energy where such developments are in accordance with the proper planning and land use evaluation of the area.
- Encourage high standards of energy efficiency in all building developments and encouraging developers, owners and tenants to improve the environmental performance of the building stock, including the deployment of renewable energy.

8.3.3.3 Hydro Energy
In responding to planning applications for hydro-electric generation schemes, the Councils will expect best practice in the preparation of applications to ensure that the proposed hydro development does not present a negative impact on amenity or on the indigenous fish population, including seasonal migration. The *Guidelines on the Construction & Operation of Small-Scale Hydro-Electric Schemes and Fisheries* prepared by the Central & Regional Fisheries Board & the Department of Communications, Marine & Natural Resources recommends guidelines from a fisheries perspective which should be followed for proposed small-scale hydro-electric schemes.

All proposed developments will be assessed having regard to current capacities in the national grid to accommodate such inputs. The Councils will consult with all relevant service providers in this regard at a very early stage in the assessment of such proposals. Appropriate proposals for the reinstatement of mills and associated power generation will be welcomed by the Councils subject to amenity considerations.

8.3.3.4 Bioenergy
Bioenergy is energy derived from biomass. Biomass is all organic material and can be either the direct product of photosynthesis, (for example plant matter such as leaves or stems, etc.) or the indirect product of photosynthesis (for example animal mass resulting from the consumption of plant material). Types of biomass that are used to provide bioenergy include; residues from forestry and related industries, recycled wood, agricultural residues, agri-food effluents, manures, the organic fraction of municipal solid waste, separated household waste and sewage sludge, and purpose grown energy crops (e.g. short rotation forestry & miscanthus grass). Biomass can be converted into useful heat and/or electricity through a number of processes such as combustion, gasification.
and anaerobic digestion. Liquid biofuels can also be derived from biomass crops such as oilseed rape, beet and wheat, as well as recovered vegetable oils and tallow.

There is huge potential for the development of biomass in Ireland. Although this industry is currently modest in scale, Ireland’s growth rate, technological advances, and the deregulation of the electricity industry together with stricter controls on waste management will result in an increase in applications for biomass installations.

The South-East Regional Authority is currently developing a Regional Bio-Energy Implementation Plan. The aim of this project is to establish a structured regional framework to allow the region to play its part in national compliance with EU policy and to maximise the resource potential. The overall objective of the project is to raise awareness and to increase the production and consumption of bio-energy in the Region.

POLICY
- Facilitate the development of projects that convert biomass to energy.
- Locate biomass installations in areas that do not affect residential or visual amenity and which are served by public roads with sufficient capacity to absorb increased traffic flows.

8.3.3.5 Energy Recovery from Waste
As our need for energy increases, the recovery of energy trapped in waste materials can benefit the environment by replacing energy from non-renewable sources. Even after extensive recycling, the residual waste stream still has a high combustible content available for energy recovery. The Waste Management Plan for the South East Region 2006-2011 sets out the policies in relation to energy from waste, and a key policy of that Plan is that an integrated waste facility incorporating thermal treatment and energy recovery will be developed in the region.

POLICY
- Seek to respond positively to applications for waste to energy projects in the context of a sustainable energy policy and the Joint Waste Management Plan.
- Examine the feasibility of recovering energy from the landfill gas at Dunmore Landfill.
- Facilitate the provision of an integrated waste facility incorporating thermal treatment and energy and associated necessary infrastructure in the region.

8.3.4 Sustainability and Energy Efficiency in Buildings
The recently published Government White Paper entitled Delivering a Sustainable Energy Future for Ireland 2007-2020 and the National Climate Change Strategy 2007-2012 commit the Government to reviewing the Building Regulations with the aim of reducing energy demand by 40% relative to current standards. In addition, the Government is committed to providing 15% of electricity consumed from renewable sources by 2010 and 33% by 2020. The Council is committed to these targets.

The Government is reviewing the Building Regulations (Technical Guidance Document L - Conservation of fuel and energy) which is due to be completed in 2008.
Dwelling Energy Assessment Procedure (DEAP) is the official Irish procedure for calculating and assessing the energy performance of dwellings. Published by Sustainable Energy Ireland (SEI), the procedure takes account of the energy required, for space heating, ventilation, water heating and lighting, less savings from energy generation technologies. It calculates both the CO₂ emission rate and energy consumption per annum. This is a useful tool for designers when considering and comparing options to conserve energy and reduce CO₂ emission. The right design decisions in relation to building form, dwelling layout, levels of insulation, amount and orientation of glazing, utilisation of solar energy, heating system and fuel type, use of draught lobbies, construction materials and measures to conserve potable water, can contribute greatly to sustainability. In addition these will lead to cost savings, in the long term, while raising the level of comfort for the occupants of the dwelling.

DEAP is also used to calculate the Building Energy Rating (BER) of a dwelling. The BER is a label containing the energy performance of the dwelling, expressed as primary energy use per unit floor area per year (kWh/m²/per annum) and illustrated as an Energy Rating (A1, A2, A3, B1, B2, B3, etc) for the dwelling, it also includes a Carbon Dioxide (CO₂) Emissions Indicator (kgCO₂/m²/yr) associated with this energy use and an advisory report.

Guidance and assistance on these and other matters pertaining to the sustainable use of energy is available from Sustainable Energy Ireland (SEI) and the Carlow Kilkenny Energy Agency.

The Department Guidelines on Quality Housing for Sustainable Communities (2007) set out how sustainable energy considerations should be incorporated into all stages of the design process, and these are outlined in Chapter 10.

The design of any building should consider the following:

- Site layout and associated bio-climatic/passive solar design measures
- Enhanced levels of insulation in walls, floors, glazing and doors
- Reduced uncontrolled air infiltration losses
- Use of healthy and controllable ventilation systems
- Heat recovery systems
- Use of daylight
- Water conservation measures
- More sustainable building materials
- Improved heat generation appliance efficiency, e.g. condensing boilers
- Intelligent heating system configuration and time/temperature/zone/function controls
- Efficient provision of domestic hot water
- Fuel switching to low or zero CO₂ emitting fuels
- Energy efficient lighting systems
- Incorporation of renewable energy systems e.g. active solar, heat pumps, biomass
- Provision of appropriate group or district heating systems.
In the case of non-domestic buildings additional options include:

- Heating, ventilation and air conditioning systems
- Electrical energy use including motive power
- Efficient lighting systems and controls
- Building Energy Management Systems
- Occupancy Controls
- Monitoring and Targeting Systems
- Combined Heat and Power (CHP).

During the course of this Plan the Council will develop a Sustainability Checklist in conjunction with the Carlow-Kilkenny Energy Agency, which will be utilised in the assessment of any new developments.

**POLICY**

To devise a Sustainability Checklist in conjunction with the Carlow-Kilkenny Energy Agency.

8.3.4.1 Alternative Energy Systems

For large buildings over 1,000m², the Energy Performance of Buildings Regulations (S.I. No. 666) 2006 require that due consideration has been given to the technical, environmental and economic feasibility of installing alternative energy systems in the proposed building, and that the use of such systems has been taken into account, as far as practicable, in the design of that building. This shall also apply to all housing schemes of ten or more units.

**POLICY**

- Encourage A energy ratings for all new dwellings and non-residential buildings, in conjunction with the Carlow-Kilkenny Energy Agency.
- Require that as part of any planning application, applicants demonstrate compliance with Part L of the Building Regulations, in relation to the CO₂ emission rate (CDER).
- Require that planning applications demonstrate that due consideration has been given to the technical, environmental and economic feasibility of installing alternative energy systems in a proposed large building, as defined in S.I. No. 666 of 2006, and that the use of such systems has been taken into account, as far as practicable, in the design of that building.

8.3.5 Telecommunications

Telecommunications has been a key driver of growth in the Irish economy over the last decade. The availability of advanced broadband technologies in particular is seen as a critical factor for Ireland to develop as an eBusiness hub, but more importantly for the promotion of regional development.
A progress report, published in 2004, on the Government Action Plan on the Information Society ‘New Connections’ reiterated that widespread availability of open-access, affordable, always-on broadband infrastructure for businesses and citizens remains the most important aspect of government policy on broadband. The implementation of broadband is under the auspices of the Department of Communications, Marine and Natural Resources. The NDP will facilitate continued growth in the telecommunications sector. It is anticipated that significant drivers of change will include advances in existing technologies, the development and deployment of new technologies, the changing role of market players and changes in consumer expectations. These changes will increase the availability of broadband and will make it an even more essential and powerful tool than it is today, for both business and residential consumers.

8.3.5.1 SERPANT: South-East Broadband Project

The South-East Regional Authority, in partnership with its constituent local authorities, is managing the roll-out of the Department of Communications, Marine and Natural Resources’ regional broadband programme in the South-East, known as SERPANT. This programme provides high speed, open access broadband networks in major towns and cities, known as Metropolitan Area Networks (MANs). The MANs are publicly owned, while allowing all telecommunication operators open access to the networks. Kilkenny city and Waterford were included in the Phase 1 MANs, and the networks were completed in 2005.

POLICY

- Support and facilitate the provision of advanced communication networks and services to the extent required to contribute to national, regional and local competitiveness and attract inward investment.
- Encourage the further co-ordinated and focused development and extension of telecommunications infrastructure including broadband connectivity in the county as a means of improving economic competitiveness and enabling more flexible work practices e.g. teleworking.
- Ensure the provision for development in connection with telecommunications is made in ways which will maximise the use of existing masts and sites so as to limit the impact of development.

8.3.5.2 Telecommunications Antennae

National policy in respect of telecommunications is included in the National Development Plan 2007-2013, the National Spatial Strategy 2002-2020 and the Guidelines for Telecommunications Antennae and Support Structures (DoE 1996). These documents all recognise the importance of establishing a modern and efficient telecommunications network.

The suitability of sites for the location of telecommunication structures will be determined by:

- The need to protect residential and community amenities
- The need to protect visual amenities
The Councils will only grant temporary planning permissions (for periods of 5 years). This will allow review and reassessment in relation to numbers and concentrations, technology and the general dynamic nature of both the industry and the receiving environment within which these masts are sited.

**POLICY**

- Have regard to the *Telecommunications Antennae and Support Structures – Guidelines for Planning Authorities* published by the Department of the Environment in July 1996.
- Ensure the sharing of masts and support structures where this is feasible.

### 8.4 Air Quality

The National Climate Change Strategy 2007-2012 emphasises that reducing greenhouse gas emissions will benefit air quality. Some progress has already been made to date through the ban under the Air Pollution Act, 1987 (Marketing, Sale and Distribution of Fuels) (Amendment) Regulations, 2000, in October 2001 on the marketing, sale and distribution of bituminous coal in Waterford City Environs and the extension of this ban to Kilkenny City and Environs under the Air Pollution Act, 1987 (Marketing, Sale and Distribution of Fuels) Regulations, 2003. The role of the Council in this regard is to protect, enhance and control air and noise pollution and to ensure the provision of the highest standards.

The Council supports the Polluter Pays Principle and will have regard to the Local Government (Planning and Development) General Policy Directive 1988 (or as may be amended from time to time) and any regulations (such as the Smokeless Fuel Regulations and Solvent Regulations) issued by the Minister for the Environment relating to air quality standards nationally, including:

- Air Framework Directive of 1996 (Due for revision 2007)
- Air Quality Standards Regulations 2002
- Ozone in Ambient Air Regulations, 2004

**POLICY**

- Implement the provisions of national policy and air pollution legislation, in conjunction with other agencies as appropriate.
- Ensure that the developments, which are subject to the requirement of the Air Pollution Act 1987 and Air Pollution (Licensing of Industrial Plant) Regulations 1988 or any subsequent regulations meet appropriate emission standards and other relevant national and international standards.
- Support public transport and non motorised transport as a means of reducing locally generated air emissions and to encourage landscaping and tree planting as a means of purification and filtering of the air.
8.4.1 Noise and Dust
Excessive noise and dust levels can have an adverse impact on the city’s environment. The Council will seek to minimise noise through the planning process by ensuring that the design of future developments incorporate measures to prevent or mitigate the transmission of noise and vibration, where appropriate.

POLICY
- To seek to minimise the noise and dust through the planning process by ensuring that the design of future developments incorporate measures to prevent or mitigate the transmission of dust, noise and vibration, where appropriate.

8.4.2 Light Pollution
While adequate lighting is essential to a safe and secure environment, light spillage from excessive or poorly designed lighting is increasingly recognised as a potential nuisance to surrounding properties and a threat to wildlife, and can reduce the visibility of the night sky. Urban and rural locations can suffer equally from this problem. Lighting columns and other fixtures can have a significant effect on the appearance of buildings and the environment and where proposals for new lighting require planning consent, the Council will ensure that they are carefully and sensitively designed. Lighting fixtures should provide only the amount of light necessary for the task in hand and shield the light given out so as to avoid creating glare or emitting light above a horizontal plane.

8.5 Water Quality
The importance of water for life and as a key to development is becoming increasingly clear. As the demand for water for domestic, industrial, and recreational purposes increases, so also does the need to protect it to ensure an adequate supply of clean water for all, including the flora and fauna that also dependent on it.

The Councils are responsible for the protection of all waters including rivers, lakes, estuarine waters and groundwater. The work includes implementation of pollution control measures, licensing of effluent discharges, implementing and monitoring compliance with environmental legislation, and drawing up pollution contingency measures. Current and pending European directives such as the Water Framework Directive and the Nitrates Directive will have implications for Kilkenny in dealing with the problems associated with preserving water quality in the county.

Eutrophication of waterways has been identified as a strategic challenge facing Ireland’s environment. Eutrophication arises from excess inputs of nutrients (mainly nitrogen and phosphorus) to waters leading to excessive plant growth, depletion of oxygen and habitat degradation. The major sources of nutrient loss to waters are agriculture and municipal sewage discharges, with other sources also making a contribution.

The Councils will continue to take appropriate measures in relation to agricultural, industrial and residential development in order to prevent ground and surface water pollution.
8.5.1.1 Water Framework Directive
In response to the increasing threat of pollution and the increasing demand from the public for cleaner rivers, lakes and beaches, the EU developed the Water Framework Directive. The directive establishes a framework for the protection of all waters including rivers, lakes, estuaries, coastal waters, groundwater, canals and other artificial water bodies for the benefit of everyone. The protection of water for wildlife and their habitats is also included under the directive.

Management of water resources must be planned and implemented, through Management Plans, in a way that achieves the best possible balance between the protection and improvement of the water environment and the interests of those who depend on it for their livelihood and quality of life. Good ecological and chemical status for all waters must be achieved by 2015 with no deterioration in existing status in the meantime.

To facilitate this process a statutory river basin district advisory council has been established in each river basin district to consider matters relating to the preparation of river basin management plans and other matters relevant to the protection and use of the aquatic environment and water resources in the district and to advise and make recommendations on these matters to the relevant public authorities. The South-East River Basin Advisory Council is the relevant authority in the South East.

The Councils are participating in the preparation of a River Basin Management Plan in relation to the South Eastern River Basin District which is due to be completed by mid-2009.

POLICY

- To actively participate in the implementation of the Water Framework Directive
- To jointly with the other participating local authorities, assist and co-operate with the South Eastern River Basin District Management Project
- To implement the South Eastern River Basin District Management Plan
- To increase public awareness of water quality issues and the measures required to protect and where required, improve the quality of all waters

8.5.1.2 Phosphorus Regulations
The Water Quality Standards for Phosphorus Regulations, 1998 (S.I. 258 of 1998) require that water quality be maintained or improved and set out water quality targets for lakes and rivers. The targets set in the Regulations must be met by 2007 at the latest for waters surveyed by the EPA in the 1995-97 period and within a maximum of ten years for waters first surveyed after 1997.

8.5.1.3 Dangerous Substances Regulations
The Dangerous Substances Regulations (S.I. No. 12 of 2001) prescribe water quality standards in respect of 14 dangerous substances in surface waters, e.g., rivers, lakes and tidal waters. The substances concerned include pesticides (atrazine, simazine,
tributyltin), solvents (dichloromethane, toluene, xylene) metals (arsenic, chromium, copper, lead, nickel, zinc) and other substances (cyanide, fluoride).

The Council will have regard to both the Phosphorus Regulations and the Dangerous Substance Regulations in the assessment of all planning applications.

POLICY

- Ensure the sustainable and economic provision of an adequate supply of good quality water for industrial, domestic and other beneficial uses, including the propagation of healthy fish stocks.
- Implement its adopted Water Quality Management Plans in order to prevent pollution and to ensure that beneficial uses of the waters e.g. industrial, domestic and agricultural abstraction, fishing and recreation, are protected.
- Ensure the protection of sources of potable water and will continue the process of monitoring the quality of water resources.
- Prevent industrial water pollution by ensuring that development is appropriately located, by seeking effluent reduction and 'clean production' where feasible, by requiring that waste water treatment facilities are adequate, and that effluents are treated and discharged in a satisfactory manner.
- Prevent pollution of water by means of development management and enforcement measures.
- Implement the measures quoted under the Water Quality Standards Reports for Phosphorous and Dangerous Substances Regulations.
- To implement the Water Quality Management Plans for the River Nore pending adoption of the South East River Basin Management Plan

8.6 Water Services

Water supply and sewerage are amongst the most important Local Authority services as they directly affect people’s health and welfare and they are essential for industrial, commercial, agricultural, tourism and housing development. Extensions to water supply and sewerage will be carefully co-ordinated with roads development proposals and planning proposals in order to encourage the compact, economic and orderly development of the City within its development boundary.

8.7 Water Supply

Water is supplied to Kilkenny City and Environs by Kilkenny County Council’s treatment plant at Troyswood and the Borough Council’s treatment plant at Radestown. Between them, these produce 3.2 million gallons of water per day. Water is a valuable resource and water conservation is regarded nationally and at EU level as a key element to sustainability of water supplies.

Significant industrial, commercial and domestic expansion has continued in Kilkenny City & Environs during the period of the last development plan. This has led to an urgent need to augment the water supply for the City & Environs to ensure a continued quality water supply into the future.
8.7.1 Water Conservation

Water supplies are a scarce and expensive resource and cannot be wasted and in this regard water conservation policies are now mandatory on the Council and are in accordance with the principles of sustainability. Work is in progress on a Water Conservation Programme for Kilkenny City & Environs.

The object of water conservation is to reduce unaccounted for water in a supply thereby, improving the level of service to consumers, lowering operating costs and maximising the value of investment already made in the supply.

**POLICY**

a) Ensure an adequate, sustainable and economic supply of good quality water in sufficient quantities for the domestic, commercial and industrial needs of Kilkenny City and Environs;

b) Conserve water supplies within the existing supply system and to eliminate leakage at all available opportunities;

c) To protect the sources of water supply from polluting activities;

d) Implement the Water Quality Management Plan for the River Nore;

e) To ensure that there is sufficient spare capacity in the water supply network to cater for all anticipated requirements;

**ACTIONS**

a) Continue the Kilkenny City and Environs Water Conservation Scheme to reduce unaccounted for water from 45% to 20%;

b) Provide and plan for the Kilkenny City Regional Water supply scheme.

8.8 Waste Water Services

The Purcellsinch treatment works provides the wastewater treatment facilities for the City and its environs. Stage IV of the Kilkenny Main Drainage Scheme was completed during the period of the last plan.

The Purcellsinch treatment plant has a design capacity of 107,000 population equivalent. This design level is exceeded occasionally due to shock-loading of the system from unidentified sources. The Council have a management regime in place to minimise the impact of the shock loadings.

As part of the Councils’ water services investment programme an upgrade of the existing plant is proposed. Design work is well advanced and it is a major priority investment for the DoEHLG for the South East Region. It is anticipated that construction will start on the upgraded facility in 2009.
POLICY

a) Prioritise the upgrading of the Purcellsinch wastewater treatment plant.
b) Provide for the necessary drainage facilities to serve the needs of all development within the City and Environs and to prevent pollution;
c) Separate the disposal of foul and surface water effluents through the provision of separate sewerage networks;
d) To maximise the benefit from capital expenditure by ensuring the economic use of existing and planned waste water treatment facilities;

8.8.1 Sludge management

A Sludge Management Plan for Kilkenny was prepared in 2003. This Sludge Management Plan considered all forms of non hazardous sludge arising and predicted to arise in the county over the next 20 years and proposed sustainable management strategies for them.

POLICY
Implement the sludge management plan for the city and county.

8.8.2 Surface Water Drainage

Individual developments facilitated under the guidance of this development plan shall be obliged, in all cases where surface water drainage measures are required, to provide a surface water drainage system separated from the foul drainage system.

In the case of one-off rural dwellings or extensions, except in circumstances where an existing surface water drainage system is available to the proposed site for development and which, in the opinion of the planning authority has adequate capacity to accommodate the identified surface water loading, surface water shall be disposed of, in its entirety within the curtilage of the development site by way of suitably sized soak holes. In the case of driveways drainage measures shall be provided to a detail acceptable to the planning authority so as to avoid run-off from the site to the adjoining public road.

For all other green-field developments it shall, in general, be the policy of the Council, to require the limitation of surface water run-off to pre-development levels. Where a developer can clearly demonstrate that capacity exists to accommodate run-off levels in excess of green-field levels then the planning authority shall give consideration to such proposals on a case by case basis.

In the case of brown-field development, while existing surface water drainage measures will be taken into account, some attenuation measures for surface water may be required at the discretion of the planning authority in the interests of balanced and sustainable development.

In line with the above Kilkenny County and Borough Councils will consider all drainage proposals consistent with SuDS (Sustainable Drainage Systems).
To give adequate allowance for climate change in designing surface water proposals a multiplication factor of 1.2 shall be applied to all river return periods up to 100 years except in circumstances where the OPW have provided advice specifying the particular multiplication factor for return periods up to 100 years. In the case of rainfall a multiplication factor of 1.1 shall be applied to rainfall intensities to make allowance for climate change requirements.

In the design of surface water systems, regard shall be had to the Greater Dublin Regional Code of Practice for Drainage Works and associated GDSDS technical documents.

8.8.3 Flooding
Flooding is a natural phenomenon of the hydrological cycle. There are many factors that influence flood behaviour and the degrees of risk that it possesses. Like other natural processes, flooding cannot be completely eliminated, but its impacts can be minimised with proactive and environmentally sustainable management. The accepted national policy response to flood protection is now to manage the risk to life and property as sustainably as possible and to consider flood risk and its related impacts on development on a catchment basis, rather than on an individual location basis. This will facilitate sustainable development through the reduction of future flood damage, and hence reduce the associated potential economic and social costs.

The Office of Public Works (OPW) is charged at a national/central government level to monitor and address situations pertaining to flooding and is in the process of preparing comprehensive guidelines to enable Planners to contribute substantially to the management of flooding related issues in consultation with the Department of the Environment Heritage & Local Government and other relevant stakeholders. Initial draft guidelines "Flood Risk & Development - Suggested policy/ Guidelines for inclusion in Development plans" have been published and are incorporated here.

During the period of the last Plan the Flood relief scheme for the River Nore was completed.

The River Breagagh is liable to flooding upstream of the city. Works proposed in relation to the Western Environs Infrastructural Scheme will help to alleviate the existing flooding regime along the existing Circular Road but further work needs to be done in relation to the management of flood risk along the River Breagagh.

8.8.3.1 Development Assessment Criteria
Development that is sensitive to the effects of flooding will generally not be permitted in flood prone or marginal areas. Appropriately designed development, which is not sensitive to the effects of flooding may be permissible in flood plains provided it does not reduce the flood plain area or otherwise restrict flow across floodplains. (Examples of such development might include park areas, sports pitches, certain types of industry, warehousing, etc. designed to be flood resistant and/or insensitive). Such development should only be permitted provided it incorporates adequate measures to cope with the ever-existent flood risk, e.g. adequate drainage systems, safety measures, emergency
Development must so far as is reasonably practicable incorporate the maximum provision to reduce the rate and quantity of runoff. e.g.:-

- Hard surface areas (car parks, etc.), should be constructed in permeable or semi-permeable materials,
- On site storm water ponds to store and/or attenuate additional runoff from the development should be provided,
- Soak-aways or french drains should be provided to increase infiltration and minimise additional runoff.

For developments adjacent to watercourses of a significant conveyance capacity any structures (including hard landscaping) must be set back from the edge of the watercourse to allow access for channel clearing/maintenance. A setback of 5m-10m is required depending on the width of the watercourse. Development consisting of construction of embankments, wide bridge piers, or similar structures will not normally be permitted in or across flood plains or river channels.

All new development must be designed and constructed to meet the following minimum flood design standards:-

- For Urban areas or where developments (existing, proposed or anticipated) are involved - the 100 year flood
- For Rural areas or where further developments (existing, proposed or anticipated) are not involved - the 25 year flood
- Along Estuaries - the 200 year tide level
- Where streams open drains or other watercourses are being culverted - the minimum permissible culvert diameter is 900mm. (Access should be provided for maintenance as appropriate.)

All significant developments impacting on flood risk areas will be required to provide a Flood Impact Assessment to accompany the planning application to identify potential loss of floodplain storage and proposals for the storage or attenuation of run/off discharges (including foul drains) to ensure the development does not increase the flood risk in the relevant catchment.

The precautionary principle (an absence of existing information on flooding in a given location should not be taken to assume an absence of flood risk) and the principle of proportionality (assessments undertaken should be appropriate in nature and scale to the development proposed) shall apply.

**POLICY**

- Ensure that development that is sensitive to the effects of flooding will generally not be permitted in flood prone or marginal areas.
- Ensure that development must so far as is reasonably practicable incorporate the maximum provision to reduce the rate and quantity of runoff.
- Require that new development should not itself be subject to an inappropriate risk of flooding nor should it cause or exacerbate such a risk at other locations.
• Control development in the natural floodplains of all rivers and streams where such development may have a negative impact on flood control, access for channel maintenance or future flood control works or might contribute to environmental degradation were flooding to occur.
• Restrict development, which is sensitive to the effects of flooding in flood prone or marginal areas unless adequate mitigation measures, which may involve the preparation of a Flood Impact Analysis, are proposed to the satisfaction of the Planning Authority.

8.9 Waste Management

The current Joint Waste Management Plan for the South East Region (JWMP) sets out the policies and objectives for waste management for the period 2006 to 2011. The purpose of this JWMP is to:

• Promote waste prevention and minimisation through source reduction, producer responsibility and public awareness.
• Provide a management plan for the recovery/recycling/disposal of waste arisings on a regional basis.

Section 4 of the Waste Management Amendment Act 2001 provides that the development plan in force in an area shall be deemed to include the objectives contained in the waste management plan made by the local authority. Therefore this development plan is deemed to contain the policies and objectives of the Joint Regional Waste Management Plan, as reviewed.

8.9.1 Waste Infrastructure
The Dunmore Landfill and Civic Amenity site is located in Dunmore on the Castlecomer Road approx 5km from Kilkenny city centre. This facility accepts all non-hazardous waste for disposal in addition to providing recycling facilities for hazardous and non-hazardous waste. It is expected that the landfill element will close during the lifetime of this plan, to be replaced by an integrated regional facility, as outlined in the JWMP.

Under the JWMP, a 3 bin collection system will be mandatory from 2008 throughout urban areas greater that 1,000 persons for household, industrial and commercial waste or as otherwise determined by the Region. This third collection bin will be utilised to collect bio-waste.

8.9.2 Litter Management Plan
A clean and well-presented local environment is a sign of good civic organisation and pride. This has been reflected locally in the good performance of the city in the Tidy Towns competition.

**POLICY**

- To reduce to a minimum the cost of recycling to the consumer in Kilkenny City and Environs.
- Prepare and implement Litter Management Plans and carry out its statutory functions in relation to the Litter Pollution Act 1997.
- Build on the achievements to date in the Tidy Towns and to develop a civic spirit which fosters pride in a clean and litter free city.
- Continue in its partnership approach with the Keep Kilkenny Beautiful Committee, community groups, trade unions, the business community, the local media, sporting organisations, tourism bodies and Gardai in the support and fostering of anti-litter initiatives within the city.

**8.9.3 Development Assessment Criteria**

In assessing planning applications, regard will be had to the waste produced by proposed developments including the nature and amount of waste produced and proposed method of disposal. Proposed apartment and housing developments must be appropriately laid out to enable the implementation of three bin collection systems.

The Council will ensure that proposed apartment, housing and commercial developments are either serviced by existing infrastructure or make appropriate provision for bring sites in their layout. Adequate access must be provided in developments to service proposed bring sites. In assessing significant developments, the Councils may require that a Waste Management Plan be submitted for the operational phase of the development.

In assessing significant construction/demolition projects, the Council will require that the developer shall include construction and demolition waste management plans, to be prepared in accordance with the *Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects* (2006) as published by the Department of the Environment, Heritage and Local Government. These plans should seek to focus on waste minimisation in general and optimise waste prevention, re-use and recycling opportunities, and shall provide for the segregation of all construction wastes into recyclable, biodegradable and residual wastes.

For any development, the developer shall ensure that all operations at the site during the construction and demolition phase shall be managed and programmed in such a manner as to minimise waste production and that procedures are in place to deal with any litter arising.
POLICY

- Implement the Joint Waste Management Plan for the South East Region.
- Fully participate in the preparation, adoption and implementation of future Joint Regional Waste Management Plans.
- To use its statutory powers to protect the environment from indiscriminate and unsightly dumping in order to protect the appearance of rural and urban areas, and in the interests of public health.
- To develop and implement education programmes that increase the awareness and understanding of local government decision makers, educators, business and industry personnel, general public and students of the need to effectively reduce and manage solid waste through the continued work of the Environmental Education and Awareness Officer.
- Encourage the provision of recycling facilities in appropriate quarry developments, construction sites and landfills for the recycling/recovery of construction & demolition waste, subject to normal planning and environmental sustainability considerations, and in accordance with the Joint Waste Management Plan.
- Require the provision of bring banks, bottle banks or other appropriate recycling facilities as part of the overall development, as deemed necessary. The sites shall be made available to the Council at the developer's own expense and will be maintained by the Council or its agents.
- Consider, when undertaking development or when authorising or permitting development, the provision of facilities within developments
- Have regard to the Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects 2006

8.10 Control of Major Accident Hazards Directive (Seveso II Directive)

The E.U. Directive (96/82 EC) (known as the Seveso II Directive) was adopted on the 3rd February 1999. It 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
- 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.

Any relevant proposals for development will be referred to the Health and Safety Authority whose technical advice is taken into account in the overall assessment of the development, in addition to normal planning criteria.
At present there is one Seveso II site within the Kilkenny City & environs; Grassland Fertilizers (Kilkenny) Ltd Palmerstown, on the Tullaroan Road in Kilkenny.

Article 12 of the Directive provides that appropriate consultation procedures must be put in place so as to ensure that, before decisions are taken, technical advice is available to Planning Authorities in respect of relevant establishments. The Health and Safety Authority (or the National Authority for Occupational Health and Safety NAOSH) provides such advice where appropriate in respect of planning applications within a certain distance of the perimeter of these sites.

**POLICY**

In order to reduce the risk and limit the consequences of major industrial accidents, it is the policy of the Councils to consult with the Health & Safety Authority when assessing proposals for development in or near sites which are identified under the COMAH (Seveso II) Directive.

### 8.10.1 Contaminated Land

Contaminated land is generally considered to be lands where there are substances which could cause significant harm and endanger health. Examples of land uses that may have caused such contamination include gas works, landfill sites and scrap yards. While applications for development on contaminated lands will generally be encouraged, the Council will require that a detailed investigation is carried out and appropriate measures are taken to ensure that the land is treated properly before development takes place. A register of contaminated sites within the county will be completed during the lifetime of this plan.

**POLICY**

- Require the applicant to engage an environmental consultant to investigate and assess the possibility and extent of contamination and to recommend remediation measures for agreement within the Council, in relation to proposals for developments on land which is or may be contaminated.

**ACTION**

Complete a register of contaminated sites within the county during the lifetime of this plan.

### 8.11 Fire Service

The County Council is the Fire Authority for Kilkenny City and County. There are stations located in Kilkenny City, Freshford, Castlecomer, Ulingford, Graiguenamanagh, Thomastown and Callan.

**POLICY**

- To upgrade and replace fire stations and to replace and provide new equipment and vehicles as the need arises.