CHAPTER 7

Environmental Management

Aim: To minimise the adverse impacts of development on the environment through policies for the management of wastes and emissions and the promotion of energy conservation.

Introduction

7.1 The purpose of this chapter is to outline Cork City Council's policies and objectives for achieving high quality, sustainable environmental standards in the City. The chapter first deals with policies focusing on energy efficiency and then turns to policies relating to the production and management of wastes and emissions with regard to solid waste, water and air quality.

Objectives

- **Promote an integrated approach to achieving sustainable development in the City.**
- **Reduce the detrimental environmental impact of developments.**
- **Improve the energy efficiency and sustainability of both existing and new buildings.**
- **Improve the supply and quality of water in the City.**
- **Minimise the production of waste.**
- **Increase waste recycling rates in the City.**
- **Improve the air quality in the City.**
- **Combat the problem of litter.**

Sustainability and Energy Efficiency

7.2 Climate change is now recognised as the most significant and threatening global environmental problem. In response to this the Kyoto Protocol has imposed targets on Ireland's greenhouse gas emissions. Ireland's international commitment is to limit greenhouse gas emissions to a 13% increase above the 1990 level over the period 2008–2012. By 2005, Ireland along with all developed countries must have made demonstrable progress in achieving their commitments to the protocol.

7.3 Ireland's rapid economic growth over the last decade has resulted in a corresponding increase in energy consumption and associated greenhouse gases emissions. We have already greatly exceeded our 13% Kyoto growth limitation target. It is estimated that figures for the year 2000 are 35.2% higher than the 1990 level. It is therefore vital to develop policies and measures that effectively meet our international obligations to reduce greenhouse gas emissions.

7.4 Ireland's climate change policy operates within the context of an overall EU climate change strategy. *Sustainable Development: A Strategy for Ireland* (1997) provided a framework for the achievement of sustainability at the local level. *The Green Paper on Sustainable Energy* (1999) established a new framework for energy efficiency and set out policies considered appropriate for Irish circumstances. *The National Climate Change Strategy 2000* (NCCS) is based on the fundamental principles outlined in both these documents. The NCCS highlights the need for a radical strategy to meet the climate change commitments made in the Kyoto Protocol. The energy sector is the largest source of CO_2 emissions in Ireland, mainly from fossil fuel combustion. It is therefore possible that the largest 'single hit' emission reduction can be achieved in the energy sector.

7.5 The need to reduce our dependency on fossil fuel imports is of increasing concern. Currently, Ireland relies on 86% imported fuel. Of the 14% indigenous fuel only 2% is from renewable sources. A gradual shift to renewable energy would mean reduced CO_2 emissions, cleaner, less polluting energy production, securing a stable energy supply for the long term, reduced reliance on expensive fuel imports and securing investment and employment in indigenous renewable energy projects.

7.6 The NCCS identifies local authorities, in partnership with Local Energy Agencies, as having an important cross-sectoral role at local level in reducing emissions and managing energy production and consumption effectively. The Cork City Energy Agency, in partnership with the City Council, has been active over the last number of years in developing local partnership based approaches to reducing and managing energy consumption.

7.7 Local authorities can affect change in a number of areas including land use planning, transport and services planning, housing provision, energy planning and awareness raising. Cork City Council recognises that it can make an important and positive contribution towards raising awareness and initiating climate change action in local communities through a number of measures.

Land-use and Transportation Policies

With regard to land-use and transportation policies, the layout of new developments and the provision of transport facilities within them can have long-term implications for transport demand and greenhouse gas emission. Close co-ordination of transport and land-use planning is therefore essential if mobility and sustainability are to be achieved. The adoption of the *Cork Area Strategic Plan* (CASP) by both the City and the County Councils is an effort to address this issue. **7.8**

The goal of CASP is to achieve a mix of land uses and building types with efficient transport so that movement and growth is facilitated and optimised, use of public transport is maximised and both emissions and energy consumption are reduced. **7.9**

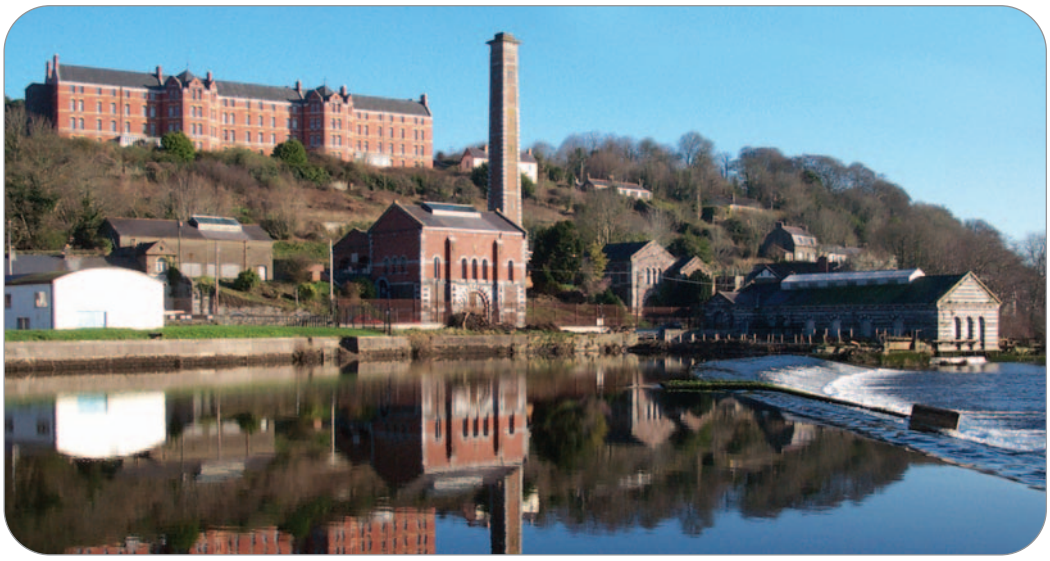
CASP is based on the premise that land use and transportation policy must be closely linked to achieve a more sustainable form of spatial development for the Cork Area. CASP states that the continuing increase in car ownership and projected growth in population will have dramatic consequences if sustainable land use and transportation policies are not implemented. CASP, through policies that guide land-use and transportation development, seeks to promote the sustainable use of resources, reducing the need for reliance on private car travel and making effective use of brownfield sites. **7.10**

Cork City Council is also involved at EU level through the CIVITAS 'Miracles' project. This project sees Cork involved with a number of other cities in the EU in the research and development of initiatives in the field of sustainable urban transport. **7.11**

Measures to promote energy conservation and renewable energy

Besides land-use and transportation policies the City Council will continue to be involved in a number of other initiatives promoting sustainable energy use and conservation. In this area, co-operation with Sustainable Energy Ireland, the Cork City Energy Agency, the Cork Environmental Forum and renewable energy organisations will be central to the successful implementation of policies. **7.12**

The City Council, is committed to the preparation of a Local Agenda 21 Strategy. To meet the requirements of this strategy and Ireland's commitment to the Kyoto Protocol, the Council will encourage the efficient use of energy and the adoption of renewable energy technologies by a series of measures outlined below. **7.13**



Promoting public awareness

Information and public awareness campaigns are vital if sustainability targets are to be achieved. **7.14**

- The City Council, in partnership with the Cork Energy Agency, will continue its efforts at increasing public awareness of energy best practice through Car Free Day, Energy Awareness Week and presentations to schools and others.
- The City Council will, in conjunction with UCC, create a "Sustainable City Campus" on the northside of the City at the Lee Road, adjacent to the City Water Works, where information and technical expertise will be available on sustainable development and environmental issues generally.

POLICY **ENV 1**

Public Awareness of Energy Best Practice
The City Council, in partnership with the Cork City Energy Agency, will continue its efforts in terms of increasing public awareness of energy best practice

Leading by example

7.15 The City Council recognises that leading by example can be an effective means of promoting best practice in energy use.

- The Council will train stakeholders in energy best practice.
- The possibility of improving the energy efficiency of all Cork City Council plant and equipment, its transport fleet and public lighting, sewage and water systems will be examined.
- The City Council has put in place arrangements for an energy audit of City Council activity, to examine opportunities for energy, greenhouse gas and financial savings. Energy efficiency targets are to be set and progress will be reported annually.
- Cork City Council through its recently adopted Energy Policy, (developed with funding from the SAVE Programme), will strive to achieve energy best practice in all its activities.
- An Energy Strategy will be developed and implemented by the City Council.
- Renewable energy will be the first choice for the Council's own developments where it is cost effective.
- The City Council will avail of opportunities to encourage a culture of sustainable energy use among local architects, engineers, planners, designers and developers.
- The City Council will put in place a methodology to establish an 'environmental footprint' for Cork City.

POLICY **ENV 2**

Best Practice in Energy Conservation and Renewable Energy
To utilise and encourage best practice methods in the fields of renewable energy and energy conservation.

Improving energy efficiency in buildings

7.16 It is clear that if greenhouse gas emissions are to be reduced and sustainability achieved, significant improvements in the performance of the building stock will be required. Currently 40% of greenhouse gas emissions in the EU come from buildings. The proposed EU Directive on the Energy Performance of Buildings (to come into effect in 2006) will have a crucial impact in enhancing the energy performance of the building stock. One of the measures to be introduced is the establishment of energy ratings for all building types, which will become a crucial measurement tool for all new developments, both new-build and refurbishment.

Improving energy efficiency of existing building stock

7.17 The improvement of energy efficiency in the existing building stock through rehabilitation should be the starting point for sustainable building and housing strategies. The modernisation of existing housing stock is being progressed by a number of Government assisted schemes. These schemes target those most at risk from fuel poverty: local authority tenants and the elderly.

- The City Council will continue to operate the *Remedial Works Scheme* which seeks the improvement of run down local authority estates.
- The Council is committed to the implementation of improved insulation standards and energy use within the housing stock for which it is responsible. To this end, a pilot project has been introduced to encourage the uptake of wall insulation in older dwellings.
- The distribution of small-scale insulation materials to selected community sectors will be continued.
- A number of energy projects including 'signature energy buildings' (e.g. projects planned at Bishopstown and Churchfield Leisure Centres) will be planned and in place by 2005, the European Capital Of Culture year.

POLICY **ENV 3**

Energy Efficiency in Building Stock
The City Council will seek to improve the energy efficiency of its existing building stock.

Promoting energy efficiency in new buildings

Over the period of the last Development Plan a number of innovative projects promoting sustainable energy and energy conservation were completed, e.g. the Lotamore Energy Efficiency Social Housing Project. Over the period of the next Plan the City Council will examine the possibility of providing similar housing schemes. Cork City Council will endeavour to: **7.18**

- Promote sustainable development through pre-planning consultation with potential developers. The Council will encourage energy efficiency in the design and building of developments. The use of renewable energy in all new buildings will also be encouraged.
- Recommend appropriate planning conditions to ensure that the full range of environmental impacts of any proposed development are considered.
- Promote better awareness of best environmental practice among developers and operators of existing facilities.
- Require applicants for large-scale developments to assess the feasibility of using alternative energy in their buildings.

Sustainability checklist for new developments

In considering proposals for development the City Council will assess energy efficiency and waste management and take into account proposed site location, orientation, design, choice of materials, equipment and landscaping. The City Council is committed to the preparation of a sustainability checklist outlining best practice in achieving energy efficiency and sustainability in design and construction. The Council will require developers to apply the principles identified in this checklist. In addition, reference should also be had to Chapter 6: Policy BE31 on energy efficient design. Developers will be required to: **7.19**

- Reuse existing buildings for new uses where possible, rather than demolishing and constructing new buildings;
- Recycle building materials on site wherever possible;
- Have integrated site planning with energy efficient transport links to the wider area, encouraging access by foot and bicycle;
- Include appropriate waste management strategies based on the waste management hierarchy.
- Design and construct buildings that are functionally adaptable (see Chapter 6: Policy BE28) and can be maintained with minimal use of resources;
- Utilise building and landscape design features to minimise energy requirements (see Policy BE31 on energy efficient design);
- Minimise the materials, energy and water needed to construct and operate buildings.

Conditions may be attached to planning permissions to ensure that sustainable building principles are applied. Developers of new buildings or buildings undergoing major refurbishment or change of use may be required to submit an energy statement demonstrating how their energy efficiency measures will work. **7.20**

Energy Efficiency in New Developments POLICY **ENV 3**

To promote energy efficiency in new developments and require proposals for new developments which use a significant amount of energy to submit an energy statement.

Promoting new and innovative schemes for renewable energy

The EU *White Paper on Renewable Sources of Energy* seeks to double the share of renewables in the energy mix from 6.3% to 12.39%. With regard to this, the City Council continues to pursue measures for improving the environmental performance and energy efficiency of buildings. Geothermal research projects carried out to assess the geothermal resources in Cork City have revealed that there is good potential for such an energy source. Geothermal heating systems have already been successfully installed in the administration building at the City landfill site and the all weather pitches in Churchfield. **7.21**

A Combined Heat and Power (CHP) plant at the landfill site generates electricity using landfill gas, which is sold to the national grid. This plant supplies 4% of the City's domestic electricity needs. A feasibility study has identified other suitable sites for CHP including the Leisureworld Complex in Bishopstown. The City Council will continue to promote research into and use of both geothermal heating systems and CHP systems along with other alternative energy efficient and renewable energy technologies. To this end **7.22**

the Council will require applicants for large-scale developments, particularly in the Docklands area, to assess the feasibility of using such technologies in their buildings.

The City Council and Cork City Energy Agency have also investigated the use of other renewable energy sources. A developer has been selected for the Lee Road hydropower project, which will generate green electricity for the Council's use.

POLICY **ENV 5**

Innovation in Energy Conservation and Renewable Energy
To continue to pursue initiatives that promote innovation in the fields of energy conservation and renewable energy resources.

Surface Water Quality

7.23 Water quality in both channels of the River Lee has improved with the works undertaken as part of the City Centre Drainage Scheme. The completion of the Cork Main Drainage Scheme, due by mid 2004, will have a major influence in improving the water quality and aesthetics in both the City and the upper harbour, with resultant amenity and economic benefits. This transformation will further open up the opportunity of developing the river and harbour from an amenity point of view for water based sports, tourism, river walks and boardwalks and generally for water frontage development and living.

7.24 Eutrophication of our waterways continues to be a problem. It is caused by excessive nutrients, from a combination of sources, including agriculture, industry and households, finding their way into rivers resulting in algal blooms. In order to address this issue a River Basin Management Strategy is currently being prepared for the South West Region in conjunction with the Cork, Kerry and Waterford local authorities and the South Western Regional Fisheries Board. The requirement to carry out this Strategy is a direct result of the EU bringing into law the *Water Framework Directive* (WFD). It is due to be transposed into Irish Law in 2003. The WFD will have a huge impact on how we manage water in Ireland over the next twenty years. It has two key components:

- Management of water resources based on catchments or river basin districts.
- Co-ordinated programmes of measures to achieve at least 'good status' for rivers, lakes, ground water and coastal and estuarine waters by specific dates.

7.25 The emphasis in the Catchment Management Plans is on both the quality and quantity of surface and ground water. Water must be treated as part of a sustainable cycle, having regard to the output in terms of water abstraction and the inputs, which include rainfall, farm run-offs and urban waste water. An important aspect of the WFD is that it requires our waters to reach good ecological status, in other words the ability of water to support life moves centre stage. Instead of a series of confusing parameters for water quality, the true health of our rivers and lakes will be judged on a more holistic basis. Under the WFD it is likely that Lough Mahon will be designated as a sensitive estuarine area.

POLICY **ENV 6**

South Western River Basin Management Strategy
To assist in the preparation and joint implementation of the South Western River Basin Management Strategy in order to promote and achieve an improvement of both surface and ground water quality.

POLICY **ENV 7**

Monitoring Water Quality
To continue to improve systems of monitoring and surveying water quality in the City's rivers and upper harbour in conjunction with Cork County Council.

POLICY **ENV 8**

Development of Waterways for Amenity
To develop the City's waterways for amenity purposes, following the completion of the Cork Main Drainage Scheme.

Flood Risk

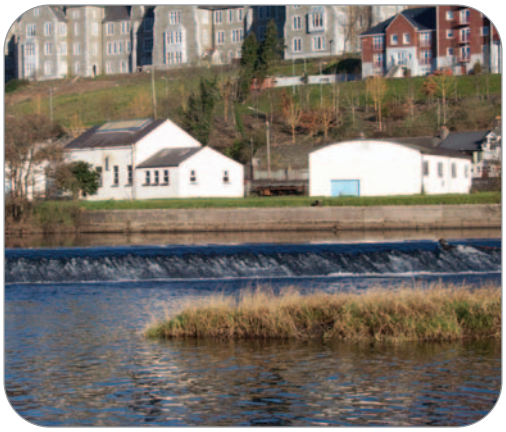
7.26 Flooding results from a combination of human activity and natural physical conditions. There is mounting evidence that the global climate is changing as a result of human activity, which will lead to an annual increase in sea level of between 4–6mm. Flood risk will therefore need to be considered at all stages of the land use planning process and managed in an environmentally sensitive way.

A flexible approach is needed to take account of flood risk to ensure that appropriate measures are taken wherever the need arises. When considering development in flood risk areas regard should be had to both the "Precautionary Principle" and "Sequential testing". Those proposing large-scale developments should: **7.27**

- Provide an assessment of whether the proposed development is likely to be affected by flooding and whether it will increase flood risk elsewhere and of the measures proposed to deal with these effects and risks.
- Satisfy the Planning Authority that any flood risk arising from the proposal will be successfully managed with the minimum environmental effect, to ensure that the site can be developed and occupied safely.

POLICY **ENV 9**

Flood Risk
Development will not normally be permitted unless appropriate flood protection and mitigation measures can be put in place to ensure that the site can be safely developed and occupied and flood risk as a result of the development is not increased elsewhere.



Water Supply

Cork City Council and Cork County Council intend to plan their water supply infrastructure in an integrated way to provide for the long term water supply needs of the Cork County (Southern Division) and Cork City areas. It is proposed to draw up a strategy for the development of water supply infrastructure to meet the anticipated needs in the defined area over the next 25 years and to make provision for servicing the requirements and phasing of the *Cork Area Strategic Plan*. The objective will be to put in place a strategic plan for major water supplies, which will form the basis for future schemes to secure water supply in the region into the future. **7.28**

The Lee Road Waterworks, which extracts water form the River Lee, is the main source of water in the City with a treatment capacity of 50 mega litres per day. In addition, the City Council extracts approximately 17 mega litres a day from the Cork Harbour and City Water Supply Scheme for the southern parts of the City. A major refurbishment of the Lee Road Waterworks Treatment Plant is proposed to cater efficiently for the volumes required to satisfy current and predicted future demand and it is expected that this work will commence in 2003. **7.29**

The water in the River Lee complies with the EU (Quality of Surface Water intended for the abstraction of Drinking Water) Regulations 1989. To comply with the EU Directive on the Quality of Drinking Water (98/83/EC), the City Council monitors the water it extracts at three different stages: at extraction, during the treatment process and in the distribution system. **7.30**

A major study on water conservation, district metering and leakage control initiated in 1997 has been completed. The City is now subdivided into 47 District Meter Areas and active leakage control is being conducted citywide. Work has been ongoing on rehabilitation of watermains in the City in conjunction with the Cork Main Drainage contracts and streetscape contracts. A study is currently underway to investigate the need for watermains rehabilitation in the remaining network within the City with a view to putting in place a programme of rehabilitation works. Under the Government's *Water Pricing Policy* and in accordance with the *'Polluter Pays' Principle*, it is a requirement that the water supply of all non-domestic consumers' properties be metered. This will require 5,600 non-domestic properties in the City to be metered by 2006. **7.31**

POLICY **ENV 10**

Strategic Water Supply Plan
To work with Cork County Council in drawing up and implementing a Strategic Water Supply Plan for Cork County (Southern Division) and the Cork City area.

POLICY **ENV 11**

Improvement of Infrastructure
To improve water supply infrastructure in order to remedy infrastructural deficiencies and facilitate development within the City.

7.32 In fulfilling Policy ENV 11 the City Council will implement the following:

- A major upgrading and modernisation of the Lee Road plant will be carried out to enable it to cater efficiently for the volumes required to satisfy current and predicted future demand (the project is due to commence in 2006).
- The provision of an additional low level storage reservoir at Shanakiel (works expected to commence in 2005).
- The replacement of old rising mains to the reservoirs at Shanakiel (works expected to commence in 2005)
- Construction of a link main from Glashaboy to the City water network at the Tivoil Industrial Estate (works due to commence 2004).
- A study is currently underway on rehabilitating the remaining watermains network within the Borough Boundary with a view to rolling out a programme of rehabilitation works.
- A feasibility study will be undertaken to look at methods of providing adequate water supply to the Docklands Development Area.

POLICY **ENV 12**

Monitoring of Drinking Water Quality
To ensure the adequacy of water sources to comply with EU Directives on 'Quality of Water Intended for Human Consumption', water quality will be monitored on a regular basis, through the monitoring of water prior to abstraction, immediately after treatment and the water being received by consumers at taps.

POLICY **ENV 13**

Monitoring Water Quality
To ensure that, in accordance with EU policy directives, the water supply to all non-domestic properties shall be metered by 2006.

Waste Water Collection and Treatment

Cork Main Drainage Scheme

7.33 The final phase of the Cork Main Drainage Scheme is currently underway. It is expected that all works will be completed by mid 2004. The treatment plant at Carrigrennan will provide secondary wastewater treatment facilities to treat waste water from the City, the Tramore Valley and Little Island. On completion of the scheme, the City Council will be in compliance with the EU directive on Urban Waste Water (under which discharges of untreated sewage from major coastal towns are to be eliminated by the year 2000). Following on from the delivery of the Main Drainage System a number of issues will arise. These include the further improvement of the drainage network in the City, the achievement of better water quality and the opportunities created to develop amenity facilities along the River Lee channels.

7.34 The collection and discharge of surface water and the quality of the surface water network will be one of the main areas of focus during this Development Plan period. There are two areas of specific concern here: The better management of combined sewer overflow systems through improved storage and control and the better management and elimination of the surcharged areas through increased pipe sizes and the provision of systems to hold water during periods of heavy rainfall and flooding. New development can often generate significant surface water run off resulting in adverse environmental impacts such as increased risk of flooding, river channel instability or damage to habitats in watercourses. New development will only be permitted where the City Council is satisfied that suitable measures, designed to mitigate the adverse impact of surface water run off, are included as an integral part of the development.

A strategic plan for foul sewage and surface water drainage would also be desirable to assess the integration of sewage and drainage for development areas adjacent and close to the City boundaries. **7.35**

Drainage System POLICY **ENV 14**
To continue to develop and expand the drainage system for the City in order to facilitate residential, commercial and industrial development in the City.

Drainage for Docklands POLICY **ENV 15**
To carry out drainage feasibility studies of the Docklands Area and in particular to look at the feasibility of implementing a sustainable urban drainage system.

Storm Water Management Plan POLICY **ENV 16**
To undertake a storm water management plan focussing on the quantitative and qualitative aspects relating to surface water drainage.

Tidal Flooding POLICY **ENV 17**
To carry out a study on tidal flooding and examine a number of alternative solutions to alleviate this recurring problem.

Solid Waste Management Strategy

Environmental Protection Agency (EPA) publications show a steady increase in waste production in Ireland in line with economic growth. In particular, reported municipal solid waste has doubled over the past fourteen years with the bulk of this waste being consigned to landfill. **7.36**

Breaking the link between economic development and increasing environmental pressures is a critical challenge for modern society. The issues associated with the generation and management of waste represent a highly visible and intensifying example of environmental pressure. They are intrinsically linked to economic activity, industrial development, lifestyle and consumption patterns. **7.37**

The Government's *Policy Statement on Preventing and Recycling Waste* (2002) requires the following actions: **7.38**

- Place greater emphasis on waste prevention and minimisation, to restrain, stabilise and reverse the growth in waste generation.
- Change production and consumption patterns and greatly improve management of waste that is generated.
- Recognise that much unavoidable waste is a resource, which, if reused or properly exploited for its materials and energy content, can reduce the use of natural resources and minimise the environmental impacts of waste disposal.

Recognising the need for a sustainable method of tackling the problem, Cork City Council and Cork County Council have agreed a 25 year *Waste Management Strategy for the Cork Region*, which was adopted by both authorities in 1995. The strategy presents an integrated approach towards waste management and seeks to implement the waste hierarchy adopted in the EU's *Fifth Environmental Action Programme Towards Sustainable Development:* waste avoidance, minimisation, recycling/re-use and safe treatment prior to disposal of the residue to landfill. **7.39**

The *Waste Management Strategy* concentrates on providing solutions to three main issues: **7.40**

- The expansion of recycling activities in the Cork region to achieve the recycling targets set by the *National Recycling Strategy*.
- The reduction of volumes of waste disposed to landfill by examining feasible options for the pre-treatment of waste.
- The disposal of waste to landfill in accordance with EU and EPA guidelines.

The second phase of the Strategy involves a campaign to increase public awareness of waste prevention and minimisation.

7.41 Cork City Council adopted a *Waste Management Plan* in 2001 and also adopted a *Waste Recycling Strategy* in 2001.

POLICY **ENV 18**

Waste Management Strategy
To implement the provisions of the Waste Management Strategy in conjunction with Cork County Council and to also implement the City Council's Waste Management Plan and Waste Recycling Strategy.

POLICY **ENV 19**

'Polluter Pays' Principle
To implement the 'Polluter Pays' principle in relation to the creation and disposal of waste.

POLICY **ENV 20**

Waste Reduction, Re-Use and Recycling
To continue to expand re-cycling activities and promote waste reduction and re-use thus reducing the amount of waste being sent to landfill in accordance with the Waste Management Plan, 2001.

7.42 Policy ENV 20 will be implemented through the following specific initiatives:

- **Materials Recovery Facility:** The *Waste Management Strategy* proposes the construction of a Municipal Solid Waste Recovery Facility in the Cork region. Options regarding the provision of this regional facility are currently being examined. The recovery facility will utilise a mechanical plant to segregate the various recyclable waste streams. It is estimated that the provision of this facility would reduce the waste for landfilling by at least 60%.
- **Transfer Station:** Should the Materials Recovery Facility be located in an area outside of the City where it is not economically feasible to directly transport waste then a transfer station will be required in or close to the City.
- **Civic Amenity Sites:** In accordance with the Council's *Waste Management Plan* it is proposed to establish an additional Civic Amenity Site on the northside of the City. The southside Civic Amenity Site, the first in the City, is now in operation at the Kinsale Road Landfill Site. The location proposed for the northside site is at Spring Lane, Blackpool. A small amenity park is also proposed adjoining the facility. The site will be a secure and manned facility that will facilitate the recycling of a range of domestic wastes.
- **Bring Sites:** It is proposed to increase the number of 'Bring Sites' to which the public can bring their recyclable domestic waste to, in line with the *Waste Recycling Strategy* and also expand the range of materials these sites will accept. Such sites normally facilitate materials such as glass, paper, textiles and cans. The City Council currently has 30 sites in place and the aim is to have 1 site per 1000 population in total within the period of the Plan. It is the aim of the City Council that such sites should be integrated with housing and commercial developments rather than located in remote locations. To this end, it is proposed that larger commercial, housing and mixed use developments shall be required as a condition of planning to provide an area and infrastructure within the development which would facilitate a 'Bring Site' and put in place management arrangements for the operation of such sites.
- **Collection of Segregated Household Waste:** During the last Development Plan period, the door to door collection of waste by wheelie bins was successfully provided to over 99% of households. Options regarding the provision of separate collections of household waste so as to facilitate recycling in the home are currently being planned. A small-scale pilot scheme was successfully implemented in 2002. It is proposed that separate collections of compostable waste and dry recyclables such as paper and plastic along with residual waste will be in place throughout the whole City by 2005 with the first phase of this initiative implemented in 2003.
- **Segregation of Commercial Waste at Source:** National legislation on waste packaging will require all businesses to separate packaging waste into 8 different waste streams from March 2003 in order to facilitate recycling. Many businesses within the City are now arranging for the separation of waste. The requirements for re-cycling have resulted in either the necessity for separation, compaction and storage areas to the rear of businesses or where such space does not exist, the requirement for daily collections of separated recycled material. Where developments are proposed which are likely to generate significant amounts of waste (either commercial or household) it shall be required as a condition of planning that (a) a waste management plan be submitted and (b) a space be provided for the separation, and storage of waste before recycling.

- Recycling Campaigns and Schemes: A key common feature to the various strategies on waste minimisation is that while providing the infrastructure and locations necessary to reduce our waste we must also run continuous campaigns to increase public awareness of waste prevention and minimisation.

7.43 A range of campaigns and schemes are being run by the City Council and during the Development Plan period further initiatives will be explored and implemented. In order to promote the Waste Management Hierarchy there are a number of schemes in place. These include:

- Promotion of City Centre business 'office paper and cardboard' recycling.
- Promotion of waste reduction and recycling in all schools.
- Promotion of waste reduction, reuse and recycling in City Council property and promotion of green procurement strategies.
- Promotion of composting.
- Promotion of the 'household hazardous waste' collection services.
- Promotion/Enforcement of the Waste Management (packaging) Regulations.
- Green Business Awards will be developed to acknowledge efforts by local businesses to make their activities more environmentally and socially sustainable.
- Production of the '20–20 Vision' newsletter.
- Community based environmental initiatives are encouraged and supported.
- Promotion of the Green Housekeeping Committee in Cork City Council.

Public Awareness Campaigns
To continue to co-operate with local stakeholders to encourage 'reduction, reuse and recycling', as part of on-going public awareness campaigns.

POLICY **ENV 21**

Private Sector Schemes
To support industry led "producer responsibility" recycling schemes such as those operated by REPAK.

POLICY **ENV 22**

Kinsale Road Landfill Site

7.44 Measures for the minimisation of the environmental impact of the Kinsale Road Landfill site have been implemented in accordance with EPA licence conditions and as a result the lifetime of the landfill site has been further increased to March 2004. Through the various reduction and recycling initiatives commercial wastes being directed to the Landfill have been reduced by 75%.

7.45 During the lifetime of the Development Plan it is proposed to convert the existing Kinsale Road Landfill Site into an amenity park. Plans for the park are currently at draft stage with proposals to provide for play areas, wildlife areas, walks, urban forestry, water features, and an area to host circuses and other outdoor events. The development of the park will begin on a phased basis as the landfill site is decommissioned and the land reclaimed. The process of reclamation has begun on the southeastern portion of the site, approximately one quarter of the active site is capped and under the requirements of the EPA licence the remaining three-quarters must be capped by the end of 2004. Full decommissioning of the site is expected to take over 30 years, however the infrastructure required for decommissioning can be provided and managed in the context of an amenity facility being developed. As part of the decommissioning process a leachate treatment plant is proposed. A combined heat and power plant is currently in operation, which is utilising gas from the landfill site and turning it into energy. It is proposed to retain a portion of the site for waste management infrastructure including the existing civic amenity site.

Kinsale Road Amenity Park
To reclaim and develop the current landfill site at Kinsale Road as an amenity park on a phased basis as the site is decommissioned, with an area retained for waste management infrastructure.

POLICY **ENV 23**

Litter

7.46 The impact of litter is recognised by the City Council as being detrimental to tourism and other economic sectors and damaging to the aesthetic quality of the City's environment. Cork City Council is taking a proactive approach to combat the problem of litter using the management and enforcement powers under the Litter Pollution Act 1997. Cleansing programmes for the City's streets have been expanded and streamlined. Increased numbers of litter wardens have been employed and the number of on the spot fines and prosecutions for litter violations has increased dramatically over the past couple of years. Public education and awareness initiatives have also been initiated. The City Council has adopted a *Litter Management Plan*, which will be fully implemented over the period of the Development Plan.

POLICY **ENV 24**

Litter Management Plan
To implement the adopted Litter Management Plan, which includes provision for street cleansing, enforcement of the litter laws and public awareness raising.

Air Quality

7.47 Air pollution problems in Cork City associated with bituminous coal have been virtually eliminated and road traffic has now replaced stationary combustion sources as the greatest threat to the quality of air. The increasing use of natural gas instead of oil and solid fuel in domestic heating systems and the ban on bituminous coal introduced in 1995, have led to significant reductions in smoke levels in the City. The potential for damage to human health and the environment due to emissions of gases such as sulphur dioxide and nitrogen oxides from industry and power generation is also being reduced through fuel switching, integrated pollution control and other measures. Ambient levels of sulphur dioxide are within existing EU limits and concentrations of lead in air are well within existing and proposed limits, following the phasing out of leaded petrol.

7.48 Emissions from road traffic have now become the greatest threat to air quality in Ireland, especially in urban areas such as Cork City. The pollutants of concern from road traffic include priority pollutants such as nitrogen oxides, particulate matters, carbon monoxide and benzene. The adoption of the EU *Framework Directive on Air Quality Assessment and Management* (92/62/EC) has fundamentally changed the entire approach to air quality monitoring and assessment in member states. The implementation of this Directive, which prescribes new and revised limit values for a wide range of air pollutants, has required a radical restructuring and expansion of monitoring networks in Ireland and other member states. Greater emphasis is placed on data dissemination and the need to keep the public informed on the state of air quality. New or extended monitoring networks have been established for the main traffic related pollutants. The information on most of these pollutants is quite limited but the indications are that nitrogen oxides

and particulate matter will present the greatest challenge in meeting the new EU standards in urban areas in the future with associated implications for traffic management and transport policy.

7.49 There are six stations around the City measuring suspended particulates and sulphur dioxide. There is one station measuring nitrogen oxides, ozone, carbon monoxide, sulphur dioxide, lead PM10 and benzene/toluene/xylene at Old Station Road, just south of City Hall, which is considered to be a 'roadside type' in the national air monitoring programme. There is also a new urban background station adjoining the Kinsale Road landfill site. These stations ensure that Cork City is compliance with the EPA recommendations outlined in *The National Air Quality Monitoring Plan.* The information gathered through sampling is compiled in an annual report on air quality and trends produced by the City Council.

POLICY **ENV 25**

Monitoring Air Quality

- *To continue monitoring air quality and air quality trends and to expand the effectiveness and extent of monitoring arrangements in accordance with EU policy directives on air quality.*
- *To consider the provision of air quality monitoring infrastructure in large commercial and residential developments in the City through the Development Contributions Scheme.*
- *To promote and develop the use of environmentally friendly fuels (such as bio fuels) in City Council vehicles and machinery.*

Noise Pollution

7.50 Noise can have a significant impact on the environment and the quality of life enjoyed by individuals and communities. Traffic is the dominant noise source in most parts of the City. Other forms of noise however such as impulsive or tonal noise can potentially be more of a nuisance.

7.51 Local authorities, through the planning system, can help minimise the adverse effects of noise pollution by guiding development so that activities that generate noise are located away from noise sensitive areas, such as housing estates and schools. Where this is not practicable, the City Council can place planning conditions on permissions for new development which seek to control and reduce noise levels. For example, conditions can be imposed restricting noise levels during construction, on entertainment activities and on industrial activity. A new EU Directive on noise, 2002/49/EC, requires member states to draw up noise maps, local plans and long term strategies to control and reduce noise in future.

7.52 Noise sensitive development will not normally be permitted in areas that are subject to high levels of noise. Where it is proposed to grant permission for noise sensitive development in areas of high noise levels, planning conditions shall be imposed to ensure that the effects of noise are mitigated as far as possible. When considering applications for new developments or uses likely to increase noise levels and cause an unacceptable degree of disturbance, the City Council will seek to contain and minimise noise. This is of particular concern in the City Centre where night-time activities such as pubs, clubs and restaurants have a significant impact on residential amenity.

POLICY **ENV 26**

Noise Pollution

To require all developments to be designed and operated in a manner that will minimise and contain noise levels. Where appropriate, the City Council will apply conditions on new developments/uses that restrict noise emissions and hours of operation.

Contaminated Land/Seveso Sites

7.53 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.

7.54 While applications for development on contaminated lands will generally be encouraged, the City 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.

POLICY **ENV 27**

Contaminated Land

It is the policy of the City Council in relation to proposals for developments on land which is or may be contaminated, to 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 with the Council.

COMAH Directive

(Control of Major Accident Hazards involving Dangerous Substances: commonly known as the Seveso II Directive)

7.55 Unlike the earlier Seveso I Directive (82/501/EEC), Seveso II includes provisions in relation to land use planning. Article 12 of the Directive requires member states to ensure that the objectives of preventing major accidents and limiting the consequences of such accidents are taken into account in land use policies and/or other relevant policies. These objectives 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, by virtue of its type or siting, is likely to increase the risk or consequences of a major accident.

7.56 There are a number of Seveso II sites which affect Cork City:

- Calor Gas Ltd., Tivoli
- Flogas (Ire) Ltd. Tivoli
- Vita Cortex, Kinsale Road
- Irish Shell Ltd., Centre Park Road
- The National Oil Reserves Agency Ltd, Centre Park Road
- Irish Oxygen Co. Ltd., Waterfall Road (Cork County Council area)

It should be noted that these are the sites currently identified and that there may be additional sites designated in the future.

7.57 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 & 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. The distance varies depending on the nature of activity at the site, for example the distance that applies to Irish Shell on Centre Park Road is 300m. Such technical advice will be taken into account in the consideration of applications for planning permission.

POLICY **ENV 28**

COMAH (Seveso II) Directive

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