

## ***Part 3 – ANTICIPATED DEVELOPMENTS***

## **13 DEVELOPMENTS/ ANTICIPATED TRENDS OVER THE PLAN PERIOD**

### **13.1 INTRODUCTION**

The previous Waste Management Plans adopted throughout Ireland have had a dramatic impact on the approach to managing waste throughout the country. The majority of Local Authorities now cooperate on a Regional basis to deal with waste issues, in Limerick/Clare/Kerry this is coordinated through the Regional Waste Management Office in Limerick. Infrastructure has been developed on the basis of Regional waste figures and needs. Regional Steering Committees meet to monitor and ensure continued progress on the implementation of the Waste Management Plan recommendations. The previous Waste Management Plan promoted an integrated approach to waste management based on a hierarchy that prioritised prevention, with disposal the least favoured option.

### **13.2 WASTE MANAGEMENT INITIATIVES AT NATIONAL LEVEL**

#### **13.2.1 National Waste Prevention Programme**

The National Waste Prevention Programme was launched in April 2004 by the Minister for the Environment, Heritage and Local Government and is to be implemented by the Environmental Protection Agency. It is a four year programme and aims to deliver substantive results on waste prevention and minimisation and will integrate a range of initiatives addressing awareness raising, technical and financial assistance, training and incentive mechanisms.

Currently the most relevant component of the NWPP for the Limerick/Clare/Kerry Region is the development of the Local Authority Prevention Demonstration Programme (LAPD). This programme was launched in November 2005 and will provide significant funding to Local Authorities for prevention

projects/programmes that demonstrate practical measures for preventing waste.

#### **13.2.2 Race Against Waste Campaign**

The Race Against Waste campaign is a national awareness and communication campaign, established to promote awareness at a national level of the importance of managing waste and to change the behaviour both at home and at work in order to reduce the amount of waste being produced and increase recycling and composting.

The campaign currently works closely with the Environmental Awareness Officers in the Local Authorities and will continue to do so. Specific elements of waste management are being communicated through a national advertising campaign, with different focus groups being targeted. It is anticipated that this campaign will have a continued positive effect on raising awareness on the importance of waste management at every level.

#### **13.2.3 Use-Related Charging for Household Waste “Pay-by-Weight/Use”**

During the preparation of the first set of Regional Waste Management Plans, a common theme in the submissions from the Public was the need to link waste charges to the amount of waste generated. This represents a logical way to implement the ‘polluter pays principle’, and can offer a real incentive to waste producers to minimise waste. The introduction of use-related charges became a policy of the Plans.

In 2004 the Minister for the Environment requested Local Authorities to implement use-related charging for household waste in their areas by January 1<sup>st</sup> 2005. The policy was given further elaboration in the 2004 Government Policy Statement ‘Taking Stock and Moving Forward’.

The positive impacts of use-related charging for household waste are:

- It provides an impetus for reduction of waste, by changing shopping and lifestyle habits
- Householders have an incentive to recycle as much waste as possible
- The need for a full 'integrated' range of recycling collections becomes more important.

The Local Authorities and waste collection companies will need to respond to this new system, by providing support and information to householders on how best to reduce and recycle waste. This will mean an extra demand on the Environmental Awareness Officers.

Householders may be tempted to reduce waste bills by inappropriate use of recycling bins, or illegal dumping or burning of waste. The Local Authority has a role in ensuring that waste is managed responsibly. In the short term, this will require sufficient resources for regulation and enforcement of waste. Householders need clear information on what forms of waste management are or are not acceptable. The general public ultimately has the role of ensuring household waste is managed responsibly.

It is possible that charging mechanisms and collection systems may change over the coming years as the most equitable systems are established across the country.

#### **13.2.4 Producer Responsibility Initiatives**

Following the publication of the Government policy statement 'Delivering Change' in 2002, 'producer responsibility initiatives' are being implemented in a number of sectors, promoted by the Department of Environment, Heritage and Local Government. The concept of producer responsibility means that industries producing goods and materials need to take responsibility for the environmental impact of placing these goods on the market. The concept is at the core of EU environmental policy. Some of the current and proposed schemes are listed below.

##### **Packaging**

The REPAK scheme has been underway since 1997, with legislative backing. REPAK is an

'approved body' representing industry and provides subsidies to assist in recycling of packaging waste, in order to meet obligations under the EU Packaging Waste Directive. Irish legislation is being updated to improve performance

##### **Newspapers**

The Irish newspaper industry is finalising a voluntary scheme with DEHLG for recycling of 'unsold' newspapers at newsagent level. A scheme to support household recycling is also being proposed.

##### **Construction & Demolition Waste**

The National Construction and Demolition Waste Council has developed a voluntary initiative to improve performance regarding C&D waste in order to meet National recycling targets. Implementation will involve the Local Authorities in a regulatory role at the planning stage for significant projects.

##### **Waste Electrical and Electronic Equipment (WEEE)**

Since the adoption of EU Directive 2002/96/EC, are entitled to return 'WEEE' such as fridges, video players, radios etc. free of charge either to the shop (new-for-old) or to a Local Authority Recycling Centre. The industry has established a system to collect and manage this waste.

##### **End of Life Vehicles (ELVs) (Scrap cars)**

Under EU Directive 2000/53/EC, car manufacturers are required to manage the collection and management of old vehicles. This will mean free-of-charge return of vehicles by the public. This scheme is being implemented in 2006.

##### **Tyres**

The DEHLG is current negotiating the introduction of a scheme to ensure proper management of tyres under a producer responsibility initiative with the Irish Tyre Industry Association.

##### **Farm Plastics**

Farming has become one of the largest regular users of plastic film in the country. New Irish Legislation now places obligations on manufacturers and importers of farm plastics to arrange for environmentally acceptable ways

of collecting and disposing of used plastic film. Irish Farm Films Producers Group (IFFPG) has been formed by farmers and the plastics industry to minimise the cost of disposal.

#### **Other Producer Responsibility Schemes**

Further proposals are expected to be developed for materials such as batteries, telephone directories, paints, medicines, and junk mail.

The implications of these schemes should be positive for the average business or household. The responsibility for managing these waste streams will transfer to the producer rather than the public. This means cost of recovery or disposal will increasingly be included in the purchase price rather than being imposed on whoever ends up with the material. The schemes will also encourage industries to 'design out' waste at source and to design products that are more easily recycled.

For the Local Authorities, there will be increased responsibilities to regulate the various schemes (inspections, data collections, enforcement measures, reporting to the EPA and DEHLG) to ensure the producers are conforming to the legislation. For WEEE, Local Authorities will have to invest in improving collection facilities at Recycling Centres.

#### **13.2.5 Market Development Group**

The ultimate objective of the recycling recommendations in this Plan is 'resource recovery', whereby recycled materials are used to create new products and in so doing reduce the consumption of resources. While recycling has improved dramatically in recent years, concerns have been expressed that we export almost 70% of waste abroad for recycling (over 850,000 tonnes). While export of materials for recycling is acceptable in terms of global flows in materials, for a number of waste streams, the lack of home markets continues to make recycling prohibitive or very expensive.

In recognition of these issues the Government has established a Market Development Group to drive a market development programme for recyclable materials. This is being funded from the Environment Fund. Three working groups have been established from relevant sectors

(including industry, waste companies and the public sector) to work on specific materials: plastics, paper and compost. One of the objectives will be development of indigenous reprocessing capacity whereby less transport is required and more employment is retained in Ireland.

Local Authorities will also need to support market development measures by taking a lead where possible in demonstration of opportunities and pilot schemes. Co-operation from the various industry sectors will also be required.

#### **13.2.6 North-South Co-Operation for Waste Management**

The potential benefits of addressing waste management on an all-island basis has been highlighted at Government level and through the research of the North-South Ministerial Council. The IBEC-CRI Joint Business Council prepared an assessment of waste management from the perspective of SMEs north and south.

By considering recyclable materials on an All-Ireland basis, some potential 'economies of scale' become apparent – for example the economic viability of facilities to recover WEEE, waste tyres, or waste paper improves as the volume of material available increases. There is also the opportunity to share expertise and technology resources in the waste management sector. A number of successful recycling companies already operate on an all-island basis.

Recently, cases of unauthorised waste movement and disposal have come to light, which highlights the need for better communication and co-operation between Local Authorities and enforcement bodies in both jurisdictions.

#### **13.2.7 Improvements in Waste Regulations and Enforcement**

Without question, one of the biggest challenges in waste management in Ireland over the coming five years will be regulation and enforcement. Since the mid 1990's the volume of legislation implemented in the waste

management sector has increased dramatically. Most of the day-to-day implementation falls to the Local Authorities. This new role of *regulator* has gradually taken over from the traditional function of 'service provider' in many Local Authorities.

The past five years have seen an escalation in waste facility gate fees, a rapid growth in waste, and a shortage of disposal capacity. Problems of unauthorised disposal have occurred in many regions. Waste management is increasingly being carried out by private companies, all of whom have to be regulated. The first obligation is to ensure that waste is not handled in a manner that can create pollution. In addition, the ability to plan properly for waste management depends on accurate and up to date statistics. All Local Authorities face a challenge to ensure they have the management systems and resources in place to fulfil all the requirements.

With high charges for waste collection, and the recent introduction of use-related charging for household waste, greater emphasis on regulation of waste producers – household and businesses - is also needed. As identified in the *National Biodegradable Waste Strategy* (April 2006) some additional legislation is expected at national level to provide an effective on-the-ground remedy to the current negative trend towards the use of back-yard incinerators and in-sink macerator units, both of which cause pollution. Again local enforcement will be required.

Since 2003 additional resources were provided by the DEHLG to assist in staffing the local authority regulation and enforcement units. The EPA is carrying out two studies aimed at improving the effectiveness of waste regulation and enforcement across the country. These projects – a Review of Unauthorised Waste Disposal, and a Review of Waste Permitting - will lead to training programmes for Local Authority staff and new protocols to be used in day-to-day activities. In addition to this, the EPA is co-ordinating a number of useful 'working groups' to assist in efficient and consistent implementation of the Packaging Regulations and the movement of waste internationally under the Trans Frontier Shipment legislation.

### 13.2.8 Use of Economic Instruments

2002 saw the introduction of the Plastic Bag Levy, which has had a dramatic impact on Irish shopping lifestyles. The Local Authorities are required to enforce the regulations behind the levy. Some of the gains made in the initial phase are now being eroded as people become used to accepting disposable paper bags. Ongoing promotion of reusable shopping bags is needed.

A Landfill Levy is also in place in Ireland, and the money collected with each tonne of waste landfilled has been pooled into an Environment Fund, which has benefited the public through the funding of new recycling facilities and environmental awareness programmes.

Further economic instruments are being considered – for example to help recover costs of litter from fast food and chewing gum. An economic levy is also an option when 'producer responsibility' schemes are being developed. In some countries, a levy is also imposed on incineration plants, in order to keep the emphasis on waste reduction and recycling. In such case the landfill levy is usually set even higher, to support the recovery of energy from waste over landfilling, in accordance with the waste hierarchy.

## 13.3 ENERGY POLICIES AND WASTE MANAGEMENT

With Ireland under severe pressure to improve performance in relation to Kyoto protocol targets, increasing focus is likely on improving performance in the waste management sector. As well as objective outlined above, it is expected that energy policies will increasingly favour use of renewable resources such as

- Using food waste, agricultural wastes and industrial sludges to generate biogas for energy generation
- Using wood chips – including residues of clean wood - for energy from boilers
- Developing biodiesel from waste cooking oil
- In power plants and cement kilns, substituting fossil fuels with alternative waste derived materials

- Employing energy efficient district heating systems

The Waste Management Plan needs to retain flexibility to enable such proposals where appropriate.

### 13.4 TRENDS IN POPULATION AND HOUSEHOLD GROWTH

Table 13.1 below shows the recent trends in population growth in the Limerick/Clare/Kerry Region. It can be seen from the table that in just six years the population of the Region grew by almost 7%.

**Table 13.1 Census figures 1996-2002**

Local Authority	1996	2004	Increase
Limerick City	52,039	54,706	5.1%
Limerick County	113,003	126,159	11.6%
Clare County	94,006	104,582	11.3%
Kerry County	126,130	132,980	5.4%
<b>Total</b>	<b>385,178</b>	<b>418,427</b>	<b>8.6%</b>

Source: CSO 1996 and 2002

The waste projections developed for the Limerick/Clare/Kerry Waste Management Plan covers a 16-year time period from 2006 to 2020. The population projections used are based on:

- Regional Population Projections (June 2001)
- CSO Population and Labour Force Projections: 2006-2036 (December 2004)
- Mid-West and South-West Regional Planning Guidelines
- DEHLG's National Overview of Waste Management Plans.

The Population and Labour Force projections (Dec 2004) are only on a national basis, therefore extrapolations for the Region are obtained by using these projections in conjunction with the Regional Population Projections (these could not be used alone because the factors that they were based on, i.e. immigration and fertility were outdated).

The household projections are based on the 'person per household' figures for the Region (CSO, 2002). It is assumed that by 2020, this figure will have settled at the EU average of 2.39 and that the decrease from the 2002 figure to 2.39 is linear.

The set of household projections used is the mean of the projections that define the narrow band within which the household numbers are likely to arise.

**Table 13.2 Population Projections for the Limerick/Clare/Kerry Region, 2005-2020**

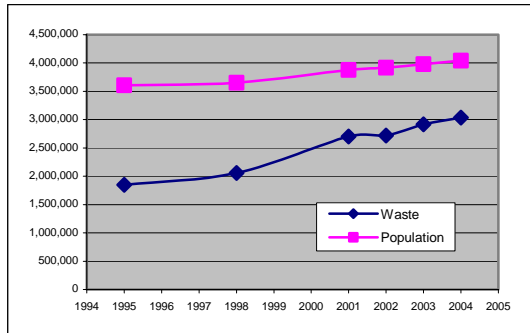
Year	Annual growth (%)	Year	Annual growth (%)
2005	1.67	2013	1.92
2006	1.68	2014	1.94
2007	1.90	2015	1.96
2008	1.91	2016	1.98
2009	1.93	2017	1.95
2010	1.95	2018	1.98
2011	1.96	2019	2.00
2012	1.90	2020	2.03

### 13.5 RECENT TRENDS IN WASTE GROWTH (1999-2003)

#### National

Figure 13.1 illustrates the National growth in municipal waste arisings and litter/street sweepings from 1995 to 2004. The graph also shows the corresponding increase in population over the same period. The data for 2004 suggests a tempering in waste growth to fall more into line with the population curve. It should be borne in mind that these waste estimates have been made by the EPA in the National Waste Database particularly in 1995 and 1998. The data from 1995 and 1998 may not present an accurate reflection of the actual volumes of waste, which may explain the perceived sharp increase in waste during that period.

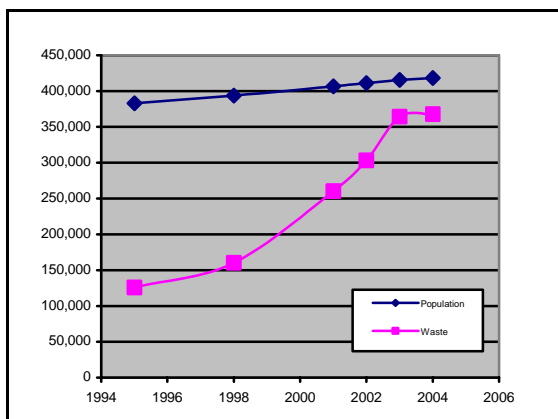
**Figure 13.1 National profile – population and waste (tonnes)**



**Limerick/Clare/Kerry Region**

In the Region, the overall municipal waste generation for the same period has been examined and the steep increase in waste arising in the 1998-2003 period is more a reflection of accuracy in reporting than growth in waste. The waste data for 1995 and 1998 relied heavily on estimates.

**Figure 13.2 Limerick/Clare/Kerry Profile – Population and Waste (tonnes)**



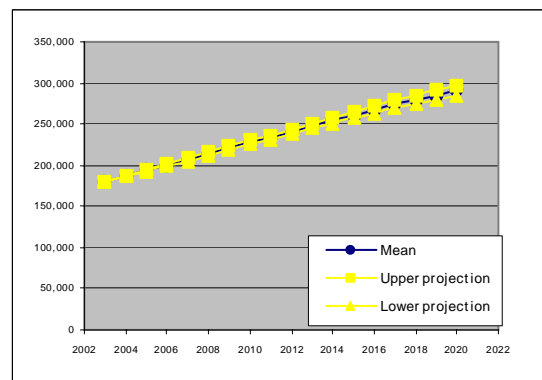
**13.6 FUTURE HOUSEHOLD WASTE GENERATION**

The 2001 Plan recorded that in 1998 the generation of waste per household stood at 1.23 tonnes per annum. By 2004, household waste arisings in the Limerick/Clare/Kerry Region was estimated at 169,039 tonnes for 140,472 households in the Region. The corresponding figure of waste generated per

household was calculated to be 1.20 tonnes per household per annum. In summary, the figure for the waste generated per household had fallen by over 2% over the intervening period.

This Plan aims to provide a profile of the future trend in waste growth in household waste using household/waste projections for 2003 to 2020. The projected growth for the Region is illustrated in Figure 13.3, which contains three possible projections for household waste calculated using waste/household factor. Lower and upper bands were calculated and a preferred 'mean' profile is shown.

**Figure 13.3 Limerick/Clare/Kerry Profile – Upper/Mean/Lower Waste Growth (tonnes)**



The corresponding waste growth factors for the mean household waste profile are shown in Table 13.3. The household waste projections are based on the household projections, and the waste per household growth rate targets.

**Table 13.3 Estimated growth rates for Household Waste in the Limerick/Clare/Kerry Region**

Year	Annual growth (%)	Year	Annual growth (%)
2006	3.21	2014	2.45
2007	3.43	2015	2.47
2008	3.44	2016	2.49
2009	3.46	2017	2.46
2010	2.97	2018	1.98
2011	2.98	2019	2.00
2012	2.92	2020	2.03

It is anticipated that household waste generation will slow over the plan period as the

goals of the Waste Management Plan Implementation are achieved.

Although an objective of the Plan will be to decouple waste growth from economic growth, it is still necessary for the Plan to accommodate every scenario and to make provision for capacity at facilities allowing for continuing growth over and above population growth.

### 13.7 COMMERCIAL AND INDUSTRIAL WASTE GENERATION

The generation of commercial and industrial waste arisings are inextricably linked to national GDP, a trend that has been recorded across the EU. The simplest approach to projecting commercial and industrial waste generation is to use GDP growth estimates. Table 13.4 highlights the national GDP estimate developed in the 'ESRI Medium-Term Review 2003-2010'.

**Table 13.4 GDP Estimates from 2004-2020**

Year	GDP growth (%) <sup>*</sup>	Year	GDP growth (%) <sup>*</sup>
2003 (actual)	2.60	2012	3.30
2004	3.10	2013	3.30
2005	6.10	2014	3.30
2006	6.60	2015	3.30
2007	5.90	2016	2.90
2008	5.90	2017	2.90
2009	5.30	2018	2.90
2010	5.00	2019	2.90
2011	3.30	2020	2.90

<sup>\*</sup>Based on ESRI 'Benchmark' Forecast

There is a close correspondence between the National Overview projections and those derived using GDP growth with a prevention factor built in. They both show optimism in the potential for this sector. A mean of these projections is obtained and the growth rates of the resultant projection are given in Table 13.5.

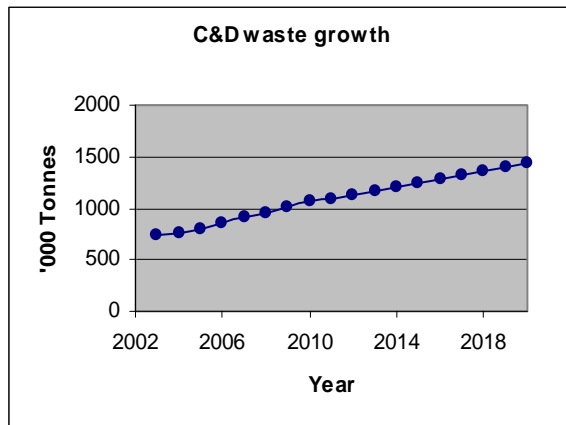
**Table 13.5 Estimated Growth Rates for Commercial/Industrial Waste in the Region.**

Year	Growth Rate (% per annum)
2005	2.6
2006	3.4
2007	2.8
2008	1.4
2009	1.5
2010	1.3
2011	0.8
2012	0.8
2013	0.8

Figures were obtained using the ESRI's Medium Term Outlook (July 2003) and the National Overview of Waste Management Plans.

### 13.8 CONSTRUCTION AND DEMOLITION WASTE GENERATION

In the absence of any reliable statistics over the years, a simple approach must be applied, in which case the linking activity in the construction sector to the changing economic circumstance of the country as represented by the GDP. Recent trends indicate that growth in the Construction Industry turnover match the continued growth of national GDP. Similar to the Commercial/Industrial waste stream, a future projection of construction and demolition waste has been generated using GDP estimates, as illustrated in Figure 13.4. The projections shown are based on GDP growth alone and do not take account of prevention/minimisation efforts which may greatly reduce the projected values.

**Figure 13.4 Limerick/Clare/Kerry Profile – C&D Waste Growth\***

\*Based on GDP growth

## 13.9 LEGISLATION AND POLICY AT EU AND NATIONAL LEVEL

European policy on waste management is embodied in a number of Directives, which contain statutory targets for minimising, reusing, recycling or recovering of waste, and have set out a certain timeframe for which these targets must be achieved by Member States. Much of the legislation governing waste management in Ireland is based on transposing the EU Directives into law.

### 13.9.1 Recent EU Legislation

#### EU Directive (2000/76/EC) on the Incineration of Waste

This Directive supersedes directives 89/368/EEC, 89/429/EEC and 94/67/EC, addressing previous omissions in these Directives. The Directive aims to prevent or limit negative effects on the environment and the resulting risks to human health from the incineration or co-incineration of waste. It sets limit values for the emissions of dioxins, mercury and dusts arising from waste incineration, along with monitoring and operational requirements.

All incineration or co-incineration plants must be authorised by the relevant Local Authority, which will specify the type and quantity of waste, allowed to be treated in such plants. The Directive sets out minimum operational requirements in order to guarantee complete waste combustion. The quantity and

harmfulness of incineration residues must be kept to a minimum and residues must, as far as possible, be recycled.

#### EU Directive on End-of-Life Vehicles (ELV)

The EU Directive on End-of-Life Vehicles (2000/53/EC) was introduced in 2000. This Directive makes provision for the holder/owner of the car to bring the car to a treatment facility free of charge so that it can be recycled and disposed of in an environmentally sustainable manner. In addition, Producers must endeavour to reduce the amount of hazardous materials used in the production of vehicles in a way that allows them to be easily dismantled.

#### EU Directive on Waste Electrical and Electronic Equipment (WEEE)

The aim of this Directive (2002/96/EC) is to increase recovery rates for waste/scrap items, and to reduce the quantities of this waste stream consigned to landfill. Producers of WEEE are responsible for the recovery of End-of-life equipment such as computers, televisions, vacuum cleaners etc, deemed a priority waste by the EU. The directive includes a target of a minimum of 4kg of WEEE to be collected per inhabitant per year by 2006.

#### EU Directive on Animal By Products (ABP)

The Animal By Products Directive (1774/2002/EC) is important in a waste context in that it regulates the disposal and use of animal by-products that are not intended for human consumption. The Animal By Products Regulation came into force on May 2nd 2003, and divides by-products into 3 categories, specifying the means of disposal for each category. Meat, poultry and vegetable waste falls within the definition of "catering waste" and is thereby an animal by-product. In addition, there is a requirement for a separate veterinary authorization (in addition to normal waste authorization) of composting and anaerobic digestion plants treating catering waste (Article 6.6 of S.I. 248 of 2003 (as amended by S.I. 707 of 2005) transposing EU regulation 1774/22002).

### 13.9.2 Recent National Legislation

Since the adoption of the last Plan in 2001, the following legislation has been introduced with relevance to Waste Planning issues.

### **Waste Management (Use of Sewage Sludge in Agriculture) (Amendment) Act 2002**

These replace the 1991 Regulations on the protection of the environment, and in particular of soil, when sewage sludge is used in agriculture.

### **Waste Management (Licensing) (Amendment) Regulations, 2002**

These Regulations clarify definitions of a number of relevant terms, classify different types of landfills allowed to operate under the licensing system, and stipulates a phasing out of certain types of waste from being accepted at landfills.

### **Waste Management (Packaging) Regulations, 2003**

These Regulations replace the Waste Management (Packaging) Regulations, 1997 and are designed to promote the recovery of packaging waste. They are intended, in particular, to facilitate the achievement of the targets for the recovery of packaging waste established by Directive 94/62/EC on packaging and packaging waste.

### **Protection of the Environment Act 2003**

This Act updates and improves the legislation governing the Integrated Pollution Control licensing regime and provides a statutory basis for incorporating improved groundwater protection requirements. The act also expands the terms of reference of IPC Licensing to IPPC licensing (Integrated Pollution Prevention and Control).

In specific waste management terms, the Act provided for a number of new measures, including the review, variation or replacement of a waste management plan to be an executive function, and the introduction of explicit new powers for Local Authorities to charge for waste services.

### **Waste Management (Licensing) (Amendment) Regulations, 2004**

These Regulations now allow for waste licences to be issued on the basis of Best Available Techniques (BAT) rather than Best Available Technology Not Entailing Excessive Cost (BATNEC). The application of BAT will further improve the environmental performance from future waste facilities in Ireland.

In addition, changes were made to the amount of information to be supplied by applicants to ensure greater transparency in relation to waste activities. Energy Efficiency is now also a consideration in deciding on waste licence applications, and new powers to revoke or suspend a licence based on "fit and proper person" requirements.

In general, several amendments have been made to the Waste Management Regulations over the past five years, primarily aimed at reducing certain waste streams from being landfilled, on limiting the inclusion of harmful materials in the production of goods and products and on a more comprehensive permitting and licensing system.

### **Waste Management (WEEE) Regulations, 2005**

The WEEE Regulations were introduced on 13<sup>th</sup> August 2005 to implement Directive 2002/96/EC. The regulations are designed to promote the recovery of waste electrical and electronic equipment and impose obligations on persons who supply electrical and electronic equipment to the Irish market whether as retailers, importers or manufacturers.

## **13.9.3 Pending Waste policy and Legislation**

### **EU Proposed EU Biowaste Directive**

A second draft of the working document on the Biological Treatment of Biodegradable Waste was published by the EU in February 2001. The main aim of this document was to promote the biological treatment of biodegradable municipal waste (BMW) and to achieve the targets set out by the Landfill Directive. The proposed directive includes the need for Local Authorities to source separate BMW.

It is anticipated that this Directive will be very influential in promoting composting of BMW and stipulating quality specifications and uses of compost within the EU. There is a possibility that this Directive will be merged with a proposed EU Soil Strategy and revised Sludge Directive, to be finalised in 2005.

## EU Soil Strategy

The soil is an environmental compartment which has not been afforded much environmental protection in the past. In order to prevent soil pollution, erosion and lack of soil fertility the EU are taking steps in the development of comprehensive EU policy on soil protection. The first of these steps consisted of the publication of a Communication "Towards a Thematic Strategy for Soil Protection" in 2002. The published document is broad in its approach and paves the way forward on how best to protect soil. The strategy is one of seven 'thematic strategies' foreseen under the EU's 6th Environment Action Programme.

## New Sludge Directive

A third draft of a working document on sludge was published in April 2000, which proposed to reduce maximum levels of heavy metals in the soil and sludge in comparison with those limits previously stated in Directive 86/278/EEC. The new Directive will require that producers and handlers of sludge must be certified and ultimately be responsible for the quality of sludge produced. The overall objective of this Directive will be to improve the rates of recycling of sludge and organic matter.

## Solvent Emissions Directive

The European Council Directive 1993/13/EC on solvent emissions has been issued to address the harmful effects on human health and the environment caused by organic solvents. Organic solvents are used in many industrial processes and, owing to their volatility, they are emitted either directly or indirectly to the air. Such solvents can also inadvertently be released to sewers/waters or onto the ground. The directive has been brought into effect in Ireland through the Emissions of Volatile Organic Compounds from Organic Solvents Regulations, 2002.

There are many different types of businesses at the commercial and industrial level that will be affected by the Directive, such as: dry cleaners, printers, vehicle refinishing, manufacturing of varnish/ink/adhesives and pharmaceutical manufacturers.

A new system known as the Accredited Inspection Contractor (AIC) system will be used to implement the Directive for smaller businesses (larger companies in the IPPC sector are already regulated by the EPA). Non

IPPC businesses must register with their Local Authority and submit the AICs annual report in order to obtain a certificate of compliance. The AIC will be reporting on: Solvent raw material, waste solvents, reused solvents, production data etc. Consequently the Local Authorities, namely the Regulation and Enforcement Teams will be responsible for absorbing the regulation of this Directive into their existing workload and ensuring compliance and reporting.

The dates by which a facility must meet air emission requirements, and must register with and obtain a certificate of compliance from their Local Authority are:

- If you are a new installation (put into operation on or before 1 July 2003): before you start to operate
- If you are an existing installation using the reduction scheme: by 31 October 2005
- If you are an existing installation meeting the Emission Limit Values: by 31 October 2007

## New Directives

There is also a proposed amendment to Directive 91/689/EC on hazardous waste. This deals with separate collection of certain wastes under separate collection schemes, and requires each Member State to set up public information campaigns to efficiently implement the Directive. Additional European Legislation currently being considered includes Directives on end-of-life vehicles and tyres.

The Directive is expected to set out a 'producer responsibility' approach to management of this waste stream - the producer/ importer of the products will have to take back and pay for recycling of the products at the end of their life. This in turn will cause companies to rethink their product design in order to minimise recycling costs. The details of how this scheme will operate in Ireland are not yet clear, but it is possible that the role enforcing compliance with the WEEE Directive will fall to the Local Authority, as is the case with the Packaging Regulations and the Farm Plastics Regulations. This would lead to an increased workload of waste regulation and monitoring by the Local Authority when the provisions of the Directive are brought into law.

A list of relevant waste management legislation is contained in Appendix C. The introduction of new legislation, together with pending

legislative enactments has had a significant impact on how Waste Management Practices have developed in the country.

### **Draft Waste Management (End of Life Vehicle) Regulations 2006**

These Regulations require producers to register with local authorities, including the payment of a registration fee, so that there is at least:

- One ATF facility in each local authority area
- One ATF per 150,000 of population in all local authorities, whichever is greater

A 'Producer' is defined as anybody that imports a vehicle. There is no minimum threshold requirement, which would exempt the smaller dealer or individual who undertakes this on a business basis. In effect the car importer or 'Producer' will be obliged to have a contract with an Approved Treatment Facility in each Local Authority Area. Producers will be required to pay a fee to register.

## **13.10 RECENT DEVELOPMENTS IN WASTE MANAGEMENT IN IRELAND**

### **13.10.1 County and Regional Waste Planning**

The Waste Management Acts 1996-2003 paved the way for inter-county and Local Authority co-operation on waste planning and since then the focus of waste management has switched from being county-based towards finding Regional solutions. By pooling resources the possibility of increasing preventative and recycling initiatives, and introducing Thermal and Biological treatment becomes viable when considered in a Regional context.

Arguably the Regional consideration of waste management also makes private investment a more attractive and viable prospect.

Over the last decade the private sector has grown to dominate the collection of commercial and industrial waste, and has entered partnership with a number of Local Authorities for household waste collection services. The DEHLG continues to promote a partnership approach between Local Authorities and private firms for the provision of future waste treatment and disposal facilities.

The Regional approach to waste management, promoted in *Changing Our Ways* has seen seven regional groupings in the country, with these individual Local Authorities producing their own waste management plans.

**Table 13.6 Waste Management Planning in Other Areas of Ireland**

<b>Region</b>	<b>Local Authorities Included</b>
Connaught	Mayo, Sligo, Roscommon, Leitrim, Galway Co. Co. & City Council
Cork	Cork City and County
Dublin	Dublin City Council, Dun-Laoghaire Rathdown, Fingal, South Dublin
Kildare	Independent Waste Management Plan
Limerick/Clare/Kerry	Limerick (Co. Co. & City Council), Kerry, Clare.
North East	Meath, Louth, Cavan, Monaghan
South East	Wexford, Carlow, Kilkenny, South Tipperary, Waterford City Council & Co. Co.
Wicklow	Independent Waste Management Plan
Donegal	Independent Waste Management Plan
Midlands	North Tipperary, Longford, Westmeath, Offaly and Laois Co. Co.

### **13.11 EPA NATIONAL POLICY ON HAZARDOUS WASTE – IMPLICATIONS FOR LOCAL AUTHORITIES**

The Environmental Protection Agency is responsible for hazardous planning under the

Waste Management Act, 1996. The National Hazardous Waste Management Plan (NHWMP) was published by the EPA in accordance with Section 26 of the Waste Management Act, 1996, and adopted in July 2001.

The NHWMP is a statutory document, designed to prevent and better manage hazardous waste in Ireland. The Plan is reviewed by the EPA at 5-year intervals. Under section 22(8) and 26(5) of the Waste Management Act, Local Authorities are required to incorporate recommendations of the plan into their Waste Management Plans.

The NHWMP has regard to:

- The prevention and minimisation of hazardous waste
- The recovery of hazardous waste
- The collection and movement of hazardous waste
- The disposal of such hazardous waste as cannot be prevented or recovered.

Local Authorities have responsibilities under each of these key areas.

### **Hazardous Waste Prevention**

Prevention of all waste is a priority in waste management, which includes hazardous waste. Prevention of hazardous waste should follow the direction from the EPA and the National Waste Prevention Programme in terms of:

- Improving awareness of what constitutes hazardous material and how they should be managed
- Promoting hazardous waste prevention and minimisation
- Improving awareness of collection and treatment options.

### **Hazardous Waste Collection**

Under the terms of the NHWMP, each Local Authority is obliged to provide a collection system for 'small-scale' producers of hazardous waste, which would include householders, farmers and small businesses.

Materials constituting hazardous waste include waste oil, waste vegetable oil, fluorescent tubes, cleaning agents, waste medicines, batteries, antifreeze, herbicides, pesticides,

adhesives, old paints and paint thinner/stripper.

A Chemcar collection of household hazardous waste was conducted by both Limerick City and County Councils in 2003. This policy has been revised and household hazardous waste is now directed toward recycling facilities for collection.

It is suggested that collection facilities be improved by consideration of making all recycling facilities available to householders for the collection of hazardous waste either on a full time basis, or periodically through the year. Other outlets for specific waste streams should also be investigated, such as pharmacies taking back old medicines, and hardware stores taking back old paints, where options for reuse exist.

The EPA points out that a proposed amendment to the EU Hazardous Waste Directive is expected to require that household hazardous waste be separately collected.

**Hazardous Waste Recovery/ Disposal** - The EPA HWM Plan states that at least 2 engineered landfill cells for hazardous waste are required nationally, one in the Dublin area and one in the South East, being the two largest hazardous waste producing areas.

**Hazardous Waste Disposal Sites** - The NHWMP sets out a methodology by which Local Authorities, in conjunction with their obligations under Section 22 of the Waste Management Act, can identify sites at which hazardous waste disposal took place previously and prioritise those sites requiring short, medium and long term action/remediation.

It is proposed that a register of these sites be compiled by each Local Authority, known as a Section 26 Register (after Section 26 of the Waste Management Act). A risk assessment of the sites in the register shall also be conducted by each Local Authority, allowing allocation of priority in dealing with any remediation.

### **Cost Recovery**

The National Hazardous Waste Management Plan is based on the 'Polluter Pays Principle'. It recommends that 'Resources be made available' for the provision of improved hazardous waste collection facilities. The cost of preparing a 'Section 26 Register' was estimated at between €45,000 and 55,000 at the time of its publication in 2001, with an

annual upkeep of €10,000. It is stated that the cost of remediation of former hazardous waste disposal sites should be recovered from the body that caused the pollution.

### **13.12 DEVELOPMENTS IN AGRICULTURAL WASTE MANAGEMENT**

Improved management of agricultural waste is being approached through initiatives such as *river catchment management planning*, which is now gaining momentum in Ireland. The Department of Environment, Heritage and Local Government has commissioned such studies in each of the main catchments across the country and these are at various stages of progress.

### **13.13 OTHER DEVELOPMENTS WITHIN THE REGION**

One of the main developments in the Limerick/Clare/Kerry Region during the life of the 2001 Waste Management Plan has been the consolidation of the waste industry with a small number of larger companies now offering a high level of service. This is consistent with the situation nationally. A net result of these changes has inevitably been an increase in waste charges to reflect the higher level of service and the move towards an increasingly integrated waste management system. Landfill gate fees have risen in the past 5-6 years, as EPA licensing requirements increased operational costs dramatically.

During the preparation of this Waste Management Plan extensive consultation was carried out with the private sector to get their views on the future of the industry. It is evident that there is strong interest from the private sector in continuing to develop recycling facilities in the Region, particularly for biological treatment. The role of the private sector is discussed in more detail in Section 18.5.