

## 16 FINANCIAL IMPLICATIONS

### 16.1 DATA AND METHODOLOGY

The financial data on waste management activities in the region are taken from the various County Councils' financial statements from Programme Group 5 - Environmental Protection, and the relevant subgroups for the financial years 2003 and 2004.

To present the financial implications in a consistent manner, the data for each Local Authority were re-grouped, based on standard waste management activities as follows:

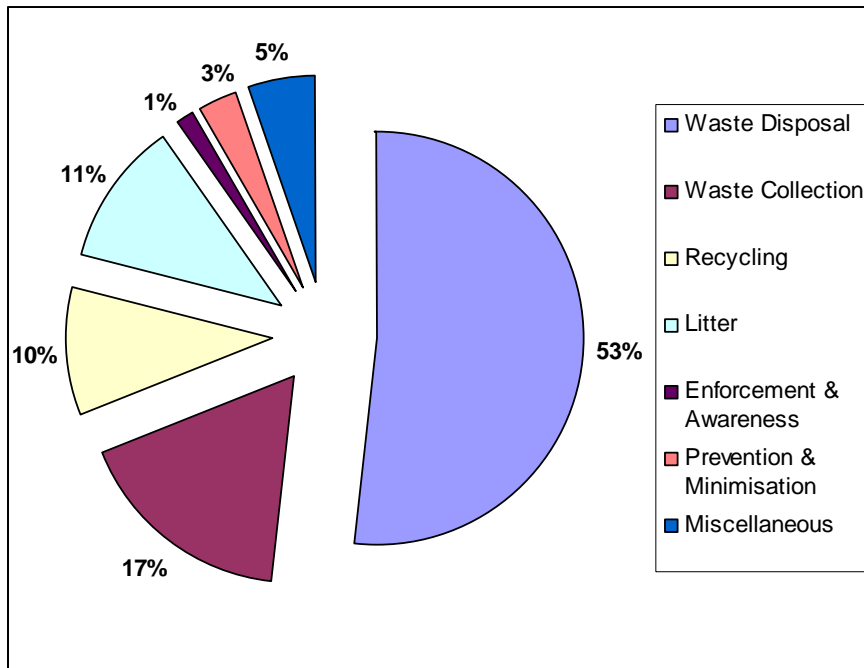
1. **Waste Disposal** – At present, Local Authorities operate landfill facilities within the Region for the disposal of both commercial and domestic waste. In this chapter, this activity is used to cover the expenditures and revenues relating to landfill operations, including monitoring, remediation, void space creation, treatment, management and other related activities. In this analysis, the day-to-day operational costs separately are shown from both capital expenditure and remediation costs.
2. **Waste Collection** – This activity covers the expenditure undertaken in providing a waste collection service to domestic and commercial customers, typically small traders in the region. For the most part these services in the region are provided by private sector operators. The income shown are charges levied for this service.
3. **Recycling** – This includes expenditures related to the construction of new facilities; as well as the day-to-day maintenance, operation and management of all Local Authority operated recycling infrastructure such as civic amenity facilities, composting centres, green waste composting facilities, bring banks and certain promotional expenditure such as recycling initiatives.
4. **Litter** – Expenditure on litter control, street cleaning, litter removal, anti-litter measures, related overheads, as well as income from litter fines and such like are included in this activity.
5. **Enforcement** – This is the income and expenditure relating to waste enforcement measures, related staff costs and other activities such as issuing waste permits.
6. **Prevention and Minimisation** – This activity includes the expenditures related to environmental awareness activities, green campaigning, environmental awareness staff and related promotion and education initiatives.
7. **Miscellaneous** – Expenditure such as overheads and administration costs related to the waste management sector, e.g. staff salaries and the portion of the central management charge allocated to Programme Group 5 are included under this heading.

## 16.2 CURRENT LOCAL AUTHORITY EXPENDITURE – REGIONAL SUMMARY

Expenditure in 2003 and 2004 on waste management operations in the Connacht Region is as shown in Table 16.1 and Figure 16.1. The table includes both capital and current expenditure undertaken in each year, and is intended to show the total expenditure on waste management in each of these years.

**Table 16.1: Waste Management Expenditure, 2003 and 2004**

No.	Description	2003	2003	2004	2004
		€	%	€	%
<b>1</b>	<b>Waste Disposal</b>	<b>15,612,828</b>	<b>53%</b>	<b>16,817,035</b>	<b>52%</b>
	<i>Landfill Operations</i>	9,154,355	31%	9,323,306	29%
	<i>Landfill Remediation</i>	4,590,410	16%	5,648,768	17%
	<i>Landfill Extension (Capital)</i>	1,868,063	6%	1,844,962	6%
<b>2</b>	<b>Waste Collection</b>	<b>5,450,265</b>	<b>18%</b>	<b>5,594,329</b>	<b>17%</b>
<b>3</b>	<b>Recycling</b>	<b>2,793,081</b>	<b>9%</b>	<b>3,209,669</b>	<b>10%</b>
<b>4</b>	<b>Litter</b>	<b>2,881,426</b>	<b>10%</b>	<b>3,678,383</b>	<b>11%</b>
<b>5</b>	<b>Enforcement &amp; Awareness</b>	<b>281,339</b>	<b>1%</b>	<b>479,819</b>	<b>1%</b>
<b>6</b>	<b>Prevention &amp; Minimisation</b>	<b>725,256</b>	<b>2%</b>	<b>961,955</b>	<b>3%</b>
<b>7</b>	<b>Miscellaneous</b>	<b>1,866,479</b>	<b>6%</b>	<b>1,744,914</b>	<b>5%</b>
<b>Total</b>		<b>29,610,674</b>	<b>100%</b>	<b>32,486,104</b>	<b>100%</b>



**Figure 16.1: Breakdown of Waste Management Expenditure, 2004 Figures**

Although overall expenditure in 2004 was just under 10% higher than in 2003, the profile of the expenditure remained fairly constant, with small reductions in the proportions spent on waste disposal and collection costs and increases in the proportions spent on prevention, recycling and waste minimisation.

The operation of landfills was the largest single item of expenditure during 2004, accounting for 52% of waste management expenditure, however, overall expenditure on waste collection, landfill operations and litter control accounted for just over 80% of waste management expenditure. A key objective of the Replacement Plan is to shift expenditure towards activities such as recycling and waste minimisation.

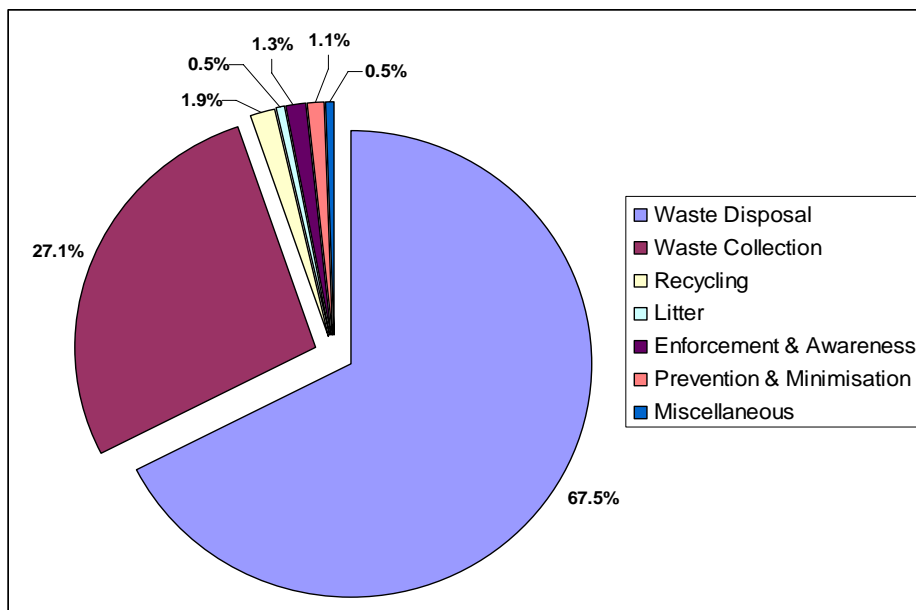
Expenditure by the local authorities on recycling activities, promotional activities, waste minimisation and enforcement accounted for over 14% of total expenditure in 2004. However, it should be noted that there is substantial private sector involvement in recovery and recycling activities in the region.

### 16.3 CURRENT LOCAL AUTHORITY INCOME – REGIONAL OVERVIEW

Income in 2003 and 2004 for waste management services in the Connacht Region are shown in Table 16.2 and Figure 16.2.

**Table 16.2: Waste Management Income, 2003 and 2004**

No.	Description	2003 €	2003 %	2004 €	2004 %
1	Waste Disposal	18,791,506	65.6%	21,047,409	67.5%
2	Waste Collection	8,244,000	28.8%	8,452,020	27.1%
3	Recycling	789,622	2.8%	583,593	1.9%
4	Litter	131,855	0.5%	167,205	0.5%
5	Enforcement & Awareness	142,434	0.5%	418,837	1.3%
6	Prevention & Minimisation	450,067	1.6%	356,080	1.1%
7	Miscellaneous	110,000	0.4%	146,000	0.5%
	<b>Total</b>	<b>28,659,484</b>	<b>100%</b>	<b>31,171,144</b>	<b>100%</b>



**Figure 16.2: Breakdown of Waste Management Income, 2004 Figures**

Income rose broadly in line with the increase in expenditure, though the profile of income changed very little. Currently, income arising from landfill operations represents 68% of total waste income. The level of dependency on this source of income is a significant consideration for the local authorities in the Connacht region.

It is assumed for the purposes of making financial projections later in this chapter that the underlying levels of landfill intake will change in line with the regional household waste generation until the BMW Landfill Directive target of 60,000 tonnes to be diverted from landfill from 2009 onwards is met.

The waste collection income shown arises from Galway City and Mayo County Councils and is the revenue generated from household and small commercial customer charges. Waste collection income is a reasonably significant portion of the region's waste management income, representing some 27% of 2004 income. While this income exceeds the waste collection costs shown previously, it should be noted that the charges are intended to recover not only collection costs, but all relevant costs, which include the costs of disposal at landfill. Consequently waste charges do not generate significant "profits" for the local authorities.

For the purposes of projections it is assumed that waste collection volumes will change in line with regional household waste generation.

The income from enforcement and awareness activities, which includes litter fines, provides a small portion of the income stream. Some of this income is provided by way of grants from the Department of the Environment, Heritage and Local Government.

## **16.4 COST RECOVERY**

Total expenditure in 2004 exceeded income by an amount of €1.3 million. Landfill operations show a surplus of €4.2 million, which is not regarded as excessive, given that there will be substantial remediation in future years.

As noted previously, waste collection income is intended to recover all the related costs of the service, including relevant waste disposal costs, and no excess "profits" are generated from this activity. Activities relating to recycling, promotion, waste minimisation and enforcement show a deficit of €3.3 million, while litter management and street cleaning activities incur a deficit of €3.5 million.

## **16.5 ESTIMATED PROJECTED EXPENDITURE FOR PLAN PERIOD**

### **16.5.1 Approach and Methodology**

The projections of future expenditure have been estimated by:

1. Establishing the 2004 waste management expenditure as the starting point,
2. Extrapolating the variable element of those expenditures that are dependant on factors such as increased activity; growth in waste arisings and diversion from landfill, as well as providing for capital expenditure over the Plan period;
3. Estimating monetary values of the proposed actions in the Implementation Action Plan Timetable, and
4. Adding these into the projected expenditure stream.

Future expenditures are presented and summarised at 2005 price levels; inflation has not been provided for.

### 16.5.2 Estimated Future Capital Investment

The estimated projected capital expenditure in the Region during the life of the Replacement Plan (2006-2011) is as follows:

**Table 16.4: Estimated Future Infrastructure and Estimated Capital Costs (2006-2011)**

Infrastructure	Provider*	Est. Cost €	Timetable for Procurement
Bring Banks	Local Authorities	480,000	48 additional bring banks to be provided in the region by 2009.
Recycling Centres	Local Authorities	4,000,000	8 additional facilities by 2009 (must accept Household Hazardous waste, WEEE and Green Waste)
Green Waste Facility	Private Sector	1,000,000	Capacity of 10,000 – 15,000 tonnes for the Region to be provided by 2009
Thermal Treatment Facility	Private Sector/PPP	300,000	Provision for anticipated expenditure on the preliminary procurement stages for a thermal treatment facility with a capacity of circa 175,000 tonnes in region.
Municipal Landfill	Local Authorities	11,360,000	Provision for new landfill cells within region, plus remediation works on existing licensed landfill sites
Construction/Demolition Recycling	Private Sector	5,000,000	New facilities to be provided by 2009

\* Assumed scenario for the purpose of this financial model. However all future waste management infrastructure could be provided either through local authority, private sector and/or PPP arrangements.

The total future capital expenditure by the Local Authorities over the Replacement Plan period is €16,140,000, inclusive of anticipated non capital expenditure on the thermal treatment project.

Private Sector investment estimated capital cost is of the order of €6,000,000 for the period of the Plan.

### 16.5.3 Estimated Projected Future Expenditures

**Table 16.5: Estimated Operational Cost Projection per Activity Group 2006 – 2011**

	Description	2004 €	2005 €	2006 €	2007 €	2008 €	2009 €	2010 €
1	<b>Waste Disposal Cost</b>	16,817,035	13,894,437	19,778,653	16,402,373	17,876,604	14,901,349	15,089,811
	<i>Landfill Operations</i>	9,323,306	9,397,892	12,732,108	12,795,828	12,860,059	12,924,804	12,990,066
	<i>Landfill Remediation</i>	5,648,768	2,696,545	3,146,545	3,606,545	1,796,545	1,976,545	2,099,745
	<i>Landfill Extension</i>	1,844,962	1,800,000	3,900,000	0	3,220,000	0	0
2	<b>Waste Collection</b>	5,594,329	5,762,159	5,935,024	6,113,074	6,296,467	6,485,361	6,679,921
3	<b>Recycling</b>	3,209,669	4,353,056	4,476,578	5,605,441	5,239,859	5,417,053	5,553,255
4	<b>Litter</b>	3,678,383	3,788,735	3,902,397	4,019,469	4,140,053	4,264,254	4,392,182
5	<b>Enforcement</b>	479,819	515,805	554,491	596,078	640,783	688,842	740,505
6	<b>Prevention and Minimisation</b>	961,955	1,034,102	1,361,659	1,445,034	1,534,661	1,631,011	1,734,587
7	<b>Miscellaneous Expenses</b>	1,744,914	1,875,783	2,016,466	2,167,701	2,330,279	2,505,050	2,692,928
	<b>Total Expenditure</b>	<b>32,486,104</b>	<b>31,224,076</b>	<b>38,025,267</b>	<b>36,349,170</b>	<b>38,058,706</b>	<b>35,892,919</b>	<b>36,883,190</b>

#### Comments and Assumptions

- In broad terms, costs will increase to €38 million by 2006 and fluctuate between that level and €36 million up to 2010. This arises mainly from;
  - An initial reduction in landfill operating costs as remediation expenditure falls and the landfill facility at Pollboy closes at the end of 2005. However, landfill extension costs in future years, coupled with remediation costs as shown, will lead to varying levels of expenditure. The expenditure is shown as taking place in the year the activity is carried out. In practice, these expenditures can be smoothed out over a number of years by the use of bank loans.
  - Some increases in household collection services have been allowed for.
  - Recycling, enforcement and prevention/minimisation expenditure will virtually double in real terms over the period of the Plan, increasing from 14% of total expenditure to 24%
- All expenditures are at 2005 prices – no allowance has been made for inflation,
- Landfill extension expenditure will occur as required to meet projected needs,
- Recycling includes the installation and operation of the recycling centres and bring banks,
- It is assumed that 75% grant aid will be provided towards all recycling and recovery related capital expenditure and
- Provision is made for relatively substantial increases in enforcement and waste minimisation expenditure.
- No provision has yet been made in respect of potential remediation works on closed landfills, (as required under Section 22 (7) (h) and Section 26 (2) (c) of the Waste Management Acts 1996-2005 and the policy direction issued by the Minister for Environment, Heritage and Local Government on 3<sup>rd</sup> May 2005 under Section 60 of the Waste Management Acts 1996-2005) as no assessment of costs or required remediation works, if any are required, has yet been made.

## 16.5.4 Estimated Future Projected Income

The key driver of future income is projected to be landfill gate fees, as shown in Table 16.6 following, in which the estimated financial implications of the Replacement Plan are shown.

**Table 16.6: Estimated Income per Activity Group 2006 – 2011**

	Description	2004 €	2005 €	2006 €	2007 €	2008 €	2009 €	2010 €
1	Landfill Disposal - Gate Fees	21,047,409	18,909,705	15,264,712	13,210,795	11,971,678	10,879,719	11,619,519
2	Waste Collection	8,452,020	8,959,141	9,496,690	10,066,491	10,670,481	11,310,709	11,989,352
3	Recycling & Recovery	583,593	627,362	658,731	691,667	726,250	762,563	800,691
4	Litter	167,205	172,221	177,388	182,709	188,191	193,836	199,652
5	Enforcement & Awareness	418,837	439,779	461,768	484,856	509,099	534,554	561,282
6	Prevention and Minimisation	356,080	373,884	392,578	412,207	432,817	454,458	477,181
7	Misc income	146,000	153,300	160,965	169,013	177,464	186,337	195,654
	<b>Total Waste Management Income</b>	<b>31,171,144</b>	<b>29,635,393</b>	<b>26,612,831</b>	<b>25,217,739</b>	<b>24,675,980</b>	<b>24,322,178</b>	<b>25,843,331</b>
	<b>Waste Management Expenditure</b>	<b>32,486,104</b>	<b>31,224,076</b>	<b>38,025,267</b>	<b>36,349,170</b>	<b>38,058,706</b>	<b>35,892,919</b>	<b>36,883,190</b>
	<b>Surplus / Deficit</b>	<b>(1,314,960)</b>	<b>(1,588,683)</b>	<b>(11,412,436)</b>	<b>(11,131,431)</b>	<b>(13,382,726)</b>	<b>(11,570,742)</b>	<b>(11,039,859)</b>

### Assumptions:

- It has been estimated that 191,000 tonnes of waste were landfilled by the local authorities in the region during 2004,
- This volume of waste consigned to landfill indicates an effective gate fee of €110 per tonne, including the Landfill Levy, or a net effective gate fee of €95 per tonne, after the levy is accounted for. The effective gate fee is lower than that charged to third parties because those authorities providing a household waste collection service landfill their waste without levying a gate fee on themselves. Thus the income per tonne will be diluted when landfill volumes and incomes are aggregated over the region,
- It is assumed that existing landfill volumes will remain as they are until 2006. In the period from 2007 – 2009 inclusive, it is assumed that 60,000 tonnes will be diverted from local authority landfills to meet BMW Landfill Directive targets. Account has also been taken of the closure of the Pollboy Landfill and the loss of waste tonnage therefrom. As a result of this combination of diversion and landfill closure, a substantial reduction in waste management income in the region is projected,
- No provision is made at this stage for diversion of waste from the local authority landfill sites to a thermal treatment facility as such a facility is not foreseen in the period of this Replacement Plan, and
- It is assumed that grant assistance towards the operating costs of bring banks and similar facilities will pertain at current levels.

The effect of these assumptions is that projected landfill incomes will fall substantially in the period to 2010. Provision is made for some increase in recycling and recovery income, arising from sales of recoverables.

It is anticipated that there will be pressures on landfill gate fees and that there will be limited opportunities to reduce the projected deficit by increasing the level of gate fees.

In overall terms, there was a deficit of €1.3 million in the region in 2004, and little change in the amount of the deficit is projected in 2005. However, there will be a substantial increase in the deficit thereafter, mainly due to the capital and operating costs of new infrastructure, including recycling/recovery works as well as landfill extension and remediation work, coupled with a substantial reduction in landfill income.

The overall deficit over the period of the Plan, i.e. 2006 to 2011 is projected at €60 million approx.

No provision has yet been made in respect of potential remediation works on closed landfills, (as required under Section 22 (7) (h) and Section 26 (2) (c) of the Waste Management Acts 1996-2005 and the policy direction issued by the Minister for Environment, Heritage and Local Government on 3<sup>rd</sup> May 2005 under Section 60 of the Waste Management Acts 1996-2005) as no assessment of costs or required remediation works, if any are required, has yet been made.

### **16.5.6 Closing the Gap**

Given the limited scope for increasing direct income from waste activities, particularly landfill, other options will need to be considered to close the funding gap. These options include:

1. Increase in commercial rates: This opportunity appears limited given that the Connacht as a Region does not have a significant rates base.
2. Additional funding from the Environment Fund or the Local Government Fund: Again this may be a limited option given that the income projections set out below already assume a 75% grant for the construction of recycling infrastructure. In addition the Environment Fund is largely funded through the landfill levy and income to the Fund is likely to fall over the next few years as recycling rates increase and landfill decreases. A separate case would have to be made to the DEHLG for any additional funding from the Local Government fund.
3. Increased cost recovery through the private sector: Nationally the private sector is increasingly taking control of much of the revenue-generating waste activities including household and commercial waste collection, biological treatment, thermal treatment and landfill. Generally the Local Authorities have to provide the non-revenue generating activities such as bring banks, recycling centres, environmental awareness staff, regulation and enforcement, etc. The option of moving towards an increasingly integrated waste management system could be considered whereby the private sector would operate a wider range of facilities on behalf of the Local Authorities as part of an overall service contract. Alternatives to this would be to require any company collecting household waste to provide the full range of services outlined in the Plan including bring banks, dry-recyclables collection, recycling centres etc or to pay the costs for providing these services to the Local Authorities. It is considered however that enabling legislation may have to be enacted to allow this to be enforced.

## 17 IMPLEMENTATION

### 17.1 INTRODUCTION

This chapter focuses on the policy and targets described in Chapter 14 and 15 which must be implemented in the next Plan period (2006-2011). The success of the Plan is dependant on a number of entities (local authorities and private sector as well as the general public) working together and playing their role in implementing the various actions required by the Plan. The local authorities of the Region will continue to take ownership of the Plan and this chapter outlines how they will lead implementation.

### 17.2 ROLES AND RESPONSIBILITIES

#### 17.2.1 Department of Environment Heritage and Local Government

In its 'Statement of Strategy 2003 – 2005' the Department of Environment and Local Government (now Department of Environment, Heritage and Local Government) states its Mission Statement is:

*"To promote sustainable development and improve the quality of life through protection of the environment and heritage, infrastructure provision, balanced regional development and good local government"*.

In line with this overall mission, the DEHLG includes a number of objectives and strategies, which include:

- To promote and protect a high quality natural environment, protect human health and secure the integration of environmental considerations into economic and sectoral policies,
- To provide and maintain policies, programmes and a legislative framework for the protection and, where necessary, improvement of environmental media and the satisfactory management and reduction of waste,
- To provide policy leadership and legislative framework for the development and management of investment programmes in water, wastewater and waste management infrastructure, and pursuing complementary policy initiatives, including producer responsibility initiatives and application of the polluter pays principle, to meet environmental and development needs,
- Promoting a partnership approach among the economic sectors, social partners, and non-governmental organisations to key environmental policy and sustainability issues through *Comhar* and other inclusive initiatives such as Local Agenda 21,
- Developing and overseeing implementation of initiatives to prevent or minimise waste in the context of *Preventing and Recycling Waste: Delivering Change*, including a new grant scheme to support greater reuse and recycling, further producer responsibility initiatives (building on the success of REPAK) and additional environmental levies following those implemented successfully in respect of plastic bags and landfilling operations and
- To encourage and support the use of public private partnerships within the local government sector as a way of delivering infrastructure and quality public services in a timely and cost effective manner.

### 17.2.2 EPA

The EPA has a wide range of statutory duties and powers under the Environmental Protection Agency Act. In addition, the capacity of the EPA in relation to enforcement has been enhanced in the Protection of the Environment Act, 2003.

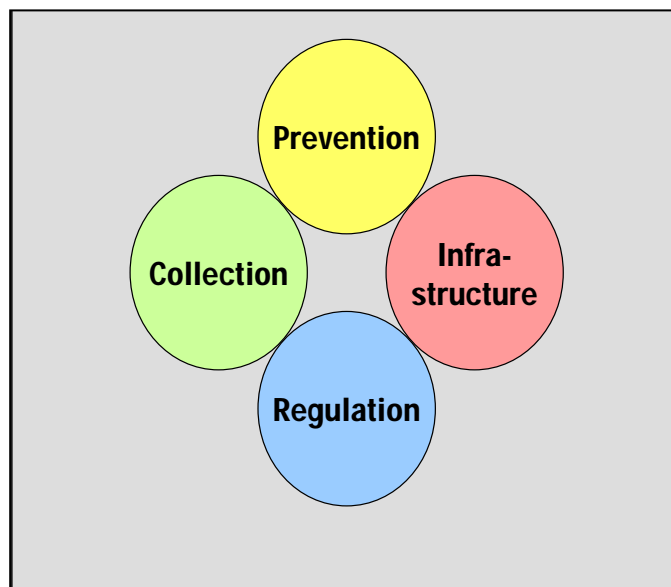
The responsibilities of the EPA in relation to waste management include:

- Formulation of National Hazardous Waste Management Plan,
- Publication of National Waste Database,
- Licensing of large-scale waste management facilities,
- Enforcement of Waste Licences,
- Promotion of environmental best practice through Cleaner Greener Production Programme,
- Auditing and reporting on the performance of Local Authorities in the discharge of their environmental protection functions in relation to waste management and
- Assisting Local Authorities to improve their environmental protection performance through the establishment of an enforcement network to promote information exchange and best practice, and by the provision of appropriate guidance.

### 17.2.3 Local Authorities

The implementation of this Plan will generally fall under certain key areas of waste management as indicated in Figure 17.1 below.

In the past these services were all provided by local authorities however the private sector is now playing an increasingly important role in the provision of waste services. A majority of the Region has waste collection by the private sector who operate their own materials recovery facilities to sort and segregate the collected waste. Much of the infrastructure required by the Plan is operated and in some cases financed by the private sector. The local authority's role is shifting more towards planning, regulation and enforcement and prevention/minimisation of waste.



**Figure 17.1: Key Areas of Implementation**

The action areas identified below will be carried out by each local authority. It is imperative that each local authority allocates the resources necessary to carry out these tasks effectively.

<p><b>Prevention &amp; Minimisation</b></p>	<ul style="list-style-type: none"> <li>• Appointment of Green Business Officers which will focus on the business and industry sector,</li> <li>• The role of the Environmental Awareness Officer will be continued and dedicated primarily to awareness and education at community and household level,</li> <li>• Outline measures and best practice for prevention and minimisation of waste,</li> <li>• Promotion of general awareness in relation to waste management,</li> <li>• Lead by example through working towards in-house Waste and Environmental Management Systems and</li> <li>• Introduction, where practicable, of Green Procurement Policies, and</li> <li>• Participate fully in the National Waste Prevention Programme.</li> </ul>
<p><b>Collection &amp; Recycling</b></p>	<ul style="list-style-type: none"> <li>• Expansion of bring bank and recycling centre network,</li> <li>• Introduce bye-laws for household and commercial sectors,</li> <li>• Introduce use related charging systems,</li> <li>• Increase household waste collection, and</li> <li>• Increase organic waste collection.</li> </ul>
<p><b>Waste Planning</b></p>	<ul style="list-style-type: none"> <li>• Formulation of Waste Management Plans with regard to prevention, minimisation, collection (including by third party), recovery and disposal of non-hazardous waste,</li> <li>• Provision of segregated collection and bring systems,</li> <li>• Planning for new facilities including: Bring Banks; Recycling Centres; Materials Recovery Facilities; Transfer Stations; Green Waste Composting and Biological Treatment Facilities; Thermal Treatment capacity and Landfill Facilities, and</li> <li>• Ensure that new developments include provision for the management of waste during construction and operation.</li> </ul>
<p><b>Infrastructure &amp; Development</b></p>	<ul style="list-style-type: none"> <li>• Expand waste infrastructure while liaising with private sector.</li> </ul>
<p><b>Regulation and Enforcement</b></p>	<ul style="list-style-type: none"> <li>• Introduction of bye-laws in relation to the presentation of waste,</li> <li>• Ensure that waste is managed as outlined in the Waste Management Plan,</li> <li>• Enforcement of Regulations regarding the movement of waste,</li> <li>• Collection and reporting of waste statistics,</li> <li>• Enforcement of requirements laid out in the Waste Management Plan,</li> <li>• Enforcement of Producer Responsibility Regulations,</li> <li>• Operation of Local Authority waste facilities in line with certificate of registration and licence requirements,</li> <li>• Consistent enforcement of waste legislation across the</li> </ul>

	<p>Region,</p> <ul style="list-style-type: none"> <li>• Fulfill responsibility under the Waste Management Act 1996 to 2005,</li> <li>• Fulfill participation in the National Enforcement Network,</li> <li>• Regulation and enforcement of: <ul style="list-style-type: none"> <li>• Waste collection, treatment and recycling carried out by the Private Sector,</li> <li>• Waste Collection permits and permit holders,</li> <li>• Improve reporting and data collection for waste,</li> <li>• Ensure preparation of C&amp;D Waste Plans by developers at Planning stage, and</li> </ul> </li> <li>• Fulfill responsibility in terms of disposal sites and potential hazardous waste disposal sites.</li> </ul>
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### 17.2.4 Private Sector

The private sector plays a significant role in waste management in the Region, particularly for commercial/industrial and construction & demolition waste. These operators are also providing the material recovery facilities needed to collect source segregated waste. In line with this increased participation, the private sector must also acknowledge its roles and responsibilities in relation to waste management, which include:

<b>Prevention &amp; Minimisation</b>	<ul style="list-style-type: none"> <li>• Play their part in the development of producer responsibility schemes,</li> <li>• Implementation of the requirements of the Waste Plan in line with the principles of the Waste Hierarchy,</li> <li>• Use of Best Available Technology,</li> <li>• Promote education and awareness regarding waste management and</li> <li>• Explore and introduce innovative waste management technologies.</li> </ul>
<b>Collection &amp; Recycling</b>	<ul style="list-style-type: none"> <li>• Implement use related charging system in consultation with the local authority, and</li> <li>• Play their part in the expansion of household waste collection.</li> </ul>
<b>Infrastructure &amp; Development</b>	<ul style="list-style-type: none"> <li>• Continue to invest in the development of infrastructure outlined in the Plan.</li> </ul>
<b>Regulation &amp; Enforcement</b>	<ul style="list-style-type: none"> <li>• Provide adequate training of staff at waste facilities,</li> <li>• Ensure that all waste activities are adequately licensed or permitted, including the destination of all waste and accurate and punctual reporting of waste flows,</li> <li>• Improve level of reporting and data collection especially prompt and accurate completion of AER's, and</li> <li>• Comply with local authority regulation and enforcement requirements.</li> </ul>

The following opportunities for new development in the Region exist:

- Development of facilities for resource recovery,
- Development of Construction & Demolition waste recovery facilities,
- Development of green waste composting facilities,
- Development of pre-treatment facilities such as Mechanical Biological Treatment (MBT),
- Development of thermal treatment capacity,

- Opportunities for developing facilities to handle agricultural waste, possibly including co-treatment with municipal and industrial wastes,
- Other innovations or opportunities may arise or be brought forward by the private sector,
- Working with Voluntary Groups, Community Groups and NGOs in improving waste services,
- Development of collection and recovery capacities for priority wastes such as WEEE, household hazardous waste,
- Development of waste reprocessing/recycling capacity for materials and
- Development of future regional landfill capacity, possibly on PPP basis with local authorities.

Where the private sector has a proposal or suggestion it is recommended that the relevant local authority Director of Service be approached, and if the proposal has a regional dimension the matter should be brought to the attention of the Waste Steering Group.

### **17.2.5 General Public**

Each member of the public, as a producer of waste, has a duty to handle waste responsibly and to ensure that any waste produced does not cause environmental damage. Additional responsibilities include:

- Prevent the generation of household waste where possible,
- Reducing the amount of waste being generated in the home by buying products with less packaging and buying in bulk,
- Participating in waste collection schemes where they are available,
- Segregating recyclable waste for collection or take to recycling centres or bring banks,
- Segregating organic waste for composting,
- Avoiding burying or burning of waste,
- Ensuring that waste is presented for collection in the manner required by the local authority or waste operator and
- Ensuring that all waste collectors have a valid waste collection permit.

### **17.2.6 Voluntary & Community Sector**

Local authorities wish to engage with local communities regarding the provision of waste management infrastructure and education on waste prevention, minimisation, recovery and recycling. This is a two way process in which voluntary and community groups have the following opportunities:

- To co-operate with social economy measures,
- To seek local authority, EU and National funding for waste minimisation and recycling projects, which will in turn create employment in the local area,
- To participate in Tidy Towns competitions,
- To discourage littering and undertake 'clean-up' days,
- To liaise and co-operate with the Environmental Awareness Officers in the Region and
- To take responsibility for the upkeep of bring banks in local communities.

### **17.2.7 Business & Industry**

The business and industrial sectors contribute significantly to the overall amount of waste produced in Ireland. As waste producers, these sectors must take responsibility for the production, handling and ultimate treatment of waste produced on their premises and for waste generated as a result of products they place on the market. Roles and responsibilities include:

- To implement best waste management practice in the workplace with the emphasis on waste prevention,
- Segregate waste that is produced into appropriate waste streams,
- To adhere to the producer responsibility initiatives, for example for packaging waste,
- Promotion of awareness and best practice amongst employees,

- To implement green purchasing policies,
- Implementation, where appropriate, of environmental management systems,
- To ensure that all waste collectors have the appropriate waste permits/licences,
- To explore ways of reducing waste, in the form of packaging, that is passed on to the consumer,
- Liaise with local authorities and private waste sector in relation to provision of recycling initiatives,
- To ensure that all movements of waste, within Ireland and abroad, have the appropriate authorisations and documentation and
- To encourage and support initiatives and research into waste management by third level institutions.

### **17.2.8 Educational Institutions**

Educational institutions at primary, secondary and third level play an important role in the promotion of good practice in relation to waste management. Students and teachers can lead by example and disseminate good practice throughout the wider community. Roles and responsibilities include:

- Participation in Green Schools Programme,
- At third level: conducting research and development, in participation with industry, into innovative waste reduction, recycling and recovery technologies,
- Implementation of in-house waste reduction and recycling programmes and
- Dissemination of information to the wider community.

## **17.3 IMPLEMENTATION OVER PLAN PERIOD**

### **17.3.1 Introduction**

The Connacht Waste Management Plan is the primary waste management planning tool for the next five-year period in the Connacht Region based on the policies stated in the preceding chapters.

Immediate implementation of all the recommended policies is not a realistic expectation from a practical and fiscal point of view. Rather, the greatest benefit will be derived from the Plan through a phased, managed approach, with key objectives specified for each year of the plan duration. Annual reports will be compiled to review and report on progress made over the preceding year and allow an evaluation of the anticipated resources and budget required for both the following year and the remaining duration of the Plan period.

Linked to this approach is the need to set a realistic set of targets and indicators to measure policy implementation and ultimately to establish whether targets are being met.

### **17.3.2 Targets**

The targets specified in Chapter 14 and Chapter 15 determine how the integrated approach to waste management in the Connacht Region will be implemented. Table 17.1 demonstrates the timeframe in which the targets must be achieved over the life of this Plan. Table 17.2 outlines the timeframe for implementing the infrastructure necessary to achieve the targets.

Responsibility for the overall Plan implementation across the Region will be the duty of the Regional Waste Management Executive and Steering Groups comprising senior management from each of the six Local Authorities.

Table 17.1: Implementation Timetable for Plan Period

Year	2006	2007	2008	2009	2010
<b>Prevention and Minimisation and Reuse</b>					
Appoint Green Business Officers from 2006					
Continue the role of the EAO'S					
Encourage community/voluntary groups to establish waste services or facilities					
Implement the National Waste Prevention Programme at local authority level					
<b>Uncollected Waste</b>					
Introduce household waste bye-laws					
Create community type waste schemes in rural areas					
Develop public awareness programmes					
Enforcement measures					
<b>Collected Waste</b>					
Extend household kerbside collection (dry recyclables and organic waste)					
Extend commercial /industrial waste collection of dry recyclables and organic waste					
<b>Recycling</b>					
Complete feasibility study for resource recovery in Galway City					
Seventeen recycling centres by 2009					
Bring banks extend to 48 no. by 2009					
<b>Biological Treatment</b>					
Support the development of biological treatment facilities in the region					
Provide collection of green waste at recycling centres					
Expand home composting in rural areas					
Provide green waste in organic kerbside collection in urban areas					
Provide green waste composting facilities					
<b>Materials Recovery and Transfer Facilities</b>					
Encourage the private sector to provide facilities to sort and recover municipal wastes					
Expand existing facilities to include pre-treatment where required					
<b>Energy Recovery/Thermal Treatment</b>					
Provide information to stakeholders					
Prepare a Business Outline Case Report					
Complete a PPP Assessment Report					
Invite Expressions of Interest					
Obtain statutory consents and approvals					
<b>Pre-Treatment</b>					
Provide sufficient capacity to meet Landfill Directive targets					
<b>Landfill Disposal</b>					
Continue to rationalise the number of landfills in the Region					
Siting study, statutory process and construction for North Connacht Regional Landfill					
Determine timescale to proceed with proposed South Connacht Regional Landfill					

**Table 17.2: Proposed Development of Public, PPP and/or Private Infrastructure during the Plan Period**

Infrastructure	Timetable for Procurement
Bring Banks	48 additional bring banks to be provided in the Region by 2009.
Recycling Centres	To achieve a target of 17 no. recycling centres for the Region for 2009 and a target of 21 no. recycling centres by 2013.
Green Waste Collection	Recycling centres to accept household green waste where possible by 2009.
Green Waste Facility	Capacity of 10,000 – 15,000 tpa for the Region to be provided by 2009.
Biological Treatment	Capacity of c. 30,000 tpa is currently provided for in the Region. Additional facilities may be required, these will be supported.
Thermal Treatment Facility	Provision for a thermal treatment facility with a capacity of circa 175,000 tonnes in region by 2016.
Municipal Landfill	Provision for new landfill cells within region, plus remediation works on existing licensed landfill sites. Development of new landfills in the Region.
Construction/Demolition Recycling	New facilities to be provided for the Region by 2013.
WEEE	Appropriate Recycling Centres to accept WEEE by 2005.

The overall targets for waste recycling, recovery and landfill disposal are:

- Recycling 48%,
- Recovery (Energy) 33% and
- Disposal 19%.

These targets assume that the waste collection and recycling facilities outlined in this Plan are implemented according to the implementation and infrastructure timetable set out in this Plan.

### 17.3.3 Implementation Timetable

The targets referred to in Table 17.1 are the major milestones that must be achieved within the period of this Plan (2006-2011).

There are several targets that have not been included from Chapters 14 and 15, as they do not have specific timeframes in which to be achieved and are generally improvements to existing systems, services and infrastructure e.g. formalising reporting procedures for waste collection recycling centres.

### 17.3.4 Service Indicators

In January 2004, the Minister for the Environment, Heritage and Local Government launched "Delivering Value for People", announcing a list of 42 service indicators to measure the performance of Local Authorities covering all of their functions. Within this list, a number of the indicators were directly related to the area of waste management, litter prevention and environmental enforcement, with the obligation on Local Authorities to report annually on performance against these indicators.

The mandatory service indicators listed should form the basis for annual reporting on progress on the implementation of the Waste Management Plan.

#### Waste Management

<b>Waste Management</b>	<ul style="list-style-type: none"> <li>• Percentage of households with segregated waste collection,</li> <li>• Percentage of household waste recycled,</li> <li>• Percentage of household waste going to landfill and</li> <li>• <u>Recycling Facilities:</u> <ul style="list-style-type: none"> <li>- No. of bring sites, recycling centres per 5,000 population</li> <li>- Tonnage of waste per 5,000 population collected for recycling.</li> </ul> </li> </ul>
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#### Environmental Enforcement

<b>Environmental Complaints &amp; Enforcement</b>	<ul style="list-style-type: none"> <li>• No. of complaints (waste, litter, water, noise, and air pollution).</li> <li>• No. of complaints investigated.</li> <li>• No. of complaints dismissed.</li> <li>• No. of enforcement procedures taken.</li> <li>• Environmental Campaigns in primary and secondary schools.</li> </ul>
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Additional indicators will be developed by local authorities to identify performance levels.

### 17.3.5 Annual Reporting

A recommendation of the Government policy statement '*Taking Stock and Moving Forward*' (2004) was for Local Authorities to adopt a more systematic and regular assessment of how well the Waste Management Plan is being implemented. This follows the performance-based system for Local Government as required under the DEHLG Initiative 'Delivering Value for People - Service Indicators in Local Authorities'.

The key service indicators will be reported in the Annual Waste Report that Regions are now required to compile. The Annual Report will outline what progress has been made in relation to the policy targets specified in Chapters 14 and 15 under the following general headings:

- Waste Prevention – Household, Commercial and industrial,
- Reuse – Household,

- Recycling – Household, Commercial and Industrial,
- Uncollected Household Waste,
- Biological Treatment,
- C&D Waste,
- WEEE,
- Hazardous Waste,
- Packaging Waste,
- Energy Recovery and
- Landfill Disposal.

## 17.4 IMPLEMENTATION STRUCTURES

### 17.4.1 Regional Co-ordination Groups

In implementation of the 2001 Waste Management Plan a Steering Group consisting of County Managers, Directors of Services and Senior Engineers was established. This group met periodically.

Following detailed consideration of the local and regional elements of the Connacht Waste Management Plan and having regard to the need for co-ordination of activities on a regional basis it is considered that implementation should be carried out in the revised structure shown in Table 17.3. Two groups are recommended, their role is described, the frequency of meetings suggested and proposed participants are identified.

One of the Executive Group members should chair the Steering Group Meetings and this position will be rotated. Permanent membership of the Steering Group will consist of the Directors of Services, Senior Engineers, Senior Executive Officers and the Regional Waste Co-ordinator and then from time to time the Environmental Awareness Officers, Green Business Officers and Enforcement Co-ordinator will attend when necessitated.

**Table 17.3: Implementation Structures – Executive and Steering Groups**

GROUP	PARTICIPANTS	ROLE	MEETING FREQUENCY
Executive	County and City Managers	<ul style="list-style-type: none"> <li>• To provide strategic direction,</li> <li>• To agree inter authority arrangements,</li> <li>• To review progress reports, Plan and policy implementation,</li> <li>• To approve budgets and staff, and</li> <li>• To approve inter authority project arrangements.</li> <li>• Approve arrangements for waste collection permits</li> </ul>	Bi-annually
Steering	Directors of Services	<ul style="list-style-type: none"> <li>• To co-ordinate the activities</li> </ul>	Quarterly

	<p>Senior Engineers</p> <p>Senior Executive Officers</p> <p>Regional Waste Co-ordinator</p> <p>Enforcement Co-ordinator and staff as required</p> <p>Environmental Awareness Officers as required</p> <p>Green Business Officers as required</p>	<p>of the local authorities,</p> <ul style="list-style-type: none"> <li>• To report on Plan implementation,</li> <li>• To review expenditure,</li> <li>• To report to the Executive Group,</li> <li>• To direct the work of the Regional Co-ordinator,</li> <li>• To deliver on key targets set out in the Plan,</li> <li>• To work with the Regional Co-ordinator,</li> <li>• To agree and implement an annual programme,</li> <li>• To co-ordinate the permitting, enforcement and awareness activities of the local authorities, and</li> <li>• To identify suitable staff.</li> </ul>	
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#### 17.4.2 Regional Waste Co-ordinator

The role of the Regional Waste Co-ordinator may be described as follows:

- To report to the Lead Local Authority;
- To assist the Steering Group;
- To prepare an annual budget for implementation of the Plan;
- To prepare an annual report on implementation of the Plan;
- To provide guidance on the processing of permits (facilities and collection) and certificates of registration applications;
- To manage the staff and resources made available by the local authorities;
- To assist the Regional Enforcement Co-ordinator and local authority enforcement staff;
- To prepare and provide summary information;
- To work with the Steering Group to deliver the targets set out in the Plan.

The Executive Group will approve arrangements for waste collection permits.

The Green Business and Environmental Awareness Officers should be employed directly by the local authorities, and their specific duties and responsibilities should be clearly defined.

#### 17.4.3 Infrastructure Delivery by the Local Authorities

The delivery of infrastructure will be progressed in the following basis:

- Infrastructure catering for wastes arising within a single local authority area will be delivered by the relevant local authority, and
- Infrastructure catering for wastes arising in a number of local authority areas will be delivered by the relevant lead local authority agreed by the Executive Group.