

## PART 4



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## 15 BASIS OF WASTE MANAGEMENT POLICY FOR THE MIDLANDS

### 15.1 INTRODUCTION

This chapter details the recommended Waste Management Policy for the Midlands Region for the Plan period of 2005-2010.

The broad policy for waste management in the Midlands Region was set down in the Midlands Waste Management Strategy Study, which was published in 1999.

Subsequently the Midlands Region Waste Management Plan was made by the five Midlands Local Authorities, and adopted by the County Managers in each of the Local Authorities in September 2001. The Plan set out the policy framework for integrated waste management of non-hazardous waste within the Region over the following 15-20 years.

### 15.2 BACKGROUND TO POLICY DEVELOPMENT

The Midlands Waste Management Strategy Study commenced in 1998 with extensive waste data collection across the Region. The Strategy assessed policies for waste prevention, minimisation, re-use, recovery, recycling and disposal of waste and a series of scenarios were considered and compared.

Following the assessment the Best Environmental Practicable Option (BPEO) – achieving maximum landfill diversion through maximum recycling and thermal treatment of combustible wastes – was selected for the Region.

The preferred option could deliver on meeting EU and National policy targets, emphasise recovery of recyclable and compostable material, enable energy recovery from residual waste, and minimise reliance on landfill disposal.

The resulting Midlands Waste Management Plan adopted the integrated approach and preferred scenario and set out very ambitious targets including:

- Recycling 46%

- Thermal treatment 37%
- Landfill disposal 17%

These targets are combined targets for household, commercial and industrial and construction and demolition waste streams as presented in Table 15.1

**Table 15.1: Targets adopted in the original Midlands Waste Management Plan**

| Source       | Recycling  | Thermal    | Landfill   |
|--------------|------------|------------|------------|
| Household    | 40%        | 58%        | 2%         |
| C&I          | 26%        | 30%        | 44%        |
| C&D          | 80%        | 0%         | 20%        |
| <b>Total</b> | <b>46%</b> | <b>37%</b> | <b>17%</b> |

The % targets in the 'Total' row above are weighted rather than averaged

The policy outlined in this Plan therefore combines the underlying philosophy of the EU Waste Management Hierarchy and the integrated waste management set out in the original Midlands Waste Strategy, and the findings of a thorough review process carried out between August 2004 and April 2005.

### 15.3 ALTERNATIVES CONSIDERED

The Waste Management Planning Regulations required that a Plan shall provide an evaluation of the policy options considered during the formulation of the Plan. The environmental and cost considerations of each option should also be considered. This process was carried out during the formulation of the original Midlands Waste Strategy (1999) and subsequent Midlands Waste Management Plan (2001).

Since the National and EU policies have not changed in the intervening period and considering that the preferred option (Scenario 3) is still valid, it was not considered necessary to re-run the model used in the original Midlands Waste Strategy (1999) and subsequent Waste Management Plan (2001).

A number of integrated scenarios were modelled in order to assess and determine the Best Practicable Environmental Option (BPEO) for Midland's waste. These scenarios represent a combination of different recycling targets, the possible introduction of thermal treatment with energy

recovery leading to landfill disposal of residues only. The scenarios cover the generation of household, commercial, industrial and construction and demolition waste. Details of each are as follows:

|                   |                                                                                                                                                                                                                                                                                                    |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Scenario 1</b> | A comprehensive recycling infrastructure in terms of both collection and materials recovery would be set up to achieve maximum recycling rates for all waste streams. There is no energy recovery by thermal treatment. Disposal of all residual and non-recyclable waste would be by landfilling. |
| <b>Scenario 2</b> | Under this scenario thermal treatment with energy recovery would be provided with a need for residual landfill only. Recycling infrastructure would be developed to the extent at which mandatory National targets (35% of municipal waste) would be met.                                          |
| <b>Scenario 3</b> | Recycling efforts would be maximised as in Scenario 1, and energy recovery by thermal treatment would be provided with residual landfill only.                                                                                                                                                     |

The main difference between Scenario 2 and Scenario 3 is that Scenario 2 achieves dry recycling through Bring Banks only and has a higher collection of organic waste for biological treatment. Scenario 3 includes door to door collection of dry recyclables but has lower level of collection of organic material from households. Therefore Scenario 2 has more biological treatment and less thermal treatment than Scenario 3.

The scenarios were selected based on the factors which are likely to influence future waste management in the Region including the mandatory EU and National targets for recycling. Therefore in developing the scenarios the maximum diversion from landfill was a primary objective. However, not all waste is recyclable nor is it possible to achieve 100% sorting efficiency. For this reason bulk reduction methods such as thermal treatment had to be considered to achieve the objective of maximising diversion from landfill. In each scenario, a plan for recycling/bulk reduction treatment facilities and the appropriate schemes for waste collection over the planning period were identified. Each scenario covers management of waste generated at household, commercial and industrial

enterprise, as well as from construction and demolition activities. Sewage sludges are also a waste stream amenable to thermal and biological treatment.

Further waste streams are also addressed in the study including agricultural wastes but were not considered in the modelling process.

A modelling study was undertaken to compare each of the selected scenarios. The model took into account technical, environmental and financial implications of each scenario. In environmental terms the net environmental load of each scenario was assessed. Initially Scenarios 1 and 3 score best since maximum recycling produces low environmental emissions. However with the introduction of thermal treatment scenario 3 has the lowest environmental emissions as thermal treatment of waste reduces the emissions of global warming and photochemical ozone production.

Each scenario was translated into an integrated waste management system, which set out collection, recycling and recovery/disposal facilities as well as an implementation time-scale over the period 2000-2014. The cost implications included capital, operating and transportation costs as well as revenue from products and energy. The relative overall costs for each scenario were expressed in terms of Net Present Value (NPV). The modelling exercise showed Scenario 3 to be the Best Practical Environmental Option for the management of the Region's waste not exceeding excessive cost.

## 15.4 WASTE MANAGEMENT PLAN REVIEW 2005-2010

In accordance with the Waste Management Act, 1996, and associated Amendments and Regulations, a statutory review of the Waste Management Plan for the Midlands must be undertaken after five years, and if required a replacement Plan prepared and implemented.

In 2004, the Midlands Local Authorities commissioned a review of the Plan at the direction of the DEHLG, which comprised the following:

- Extensive consultation with the public, the waste industry and Regional stakeholders to determine their views and level of satisfaction with the Plan to date
- Comprehensive waste data collection and assessment of waste management performance to date
- Assessment of new Government policy and EU level policies (and legislation), and the impacts for the Midlands Region
- Consideration of new information, philosophies, technologies and opportunities since the original strategy was developed
- Implications for future waste management in the Midlands Region

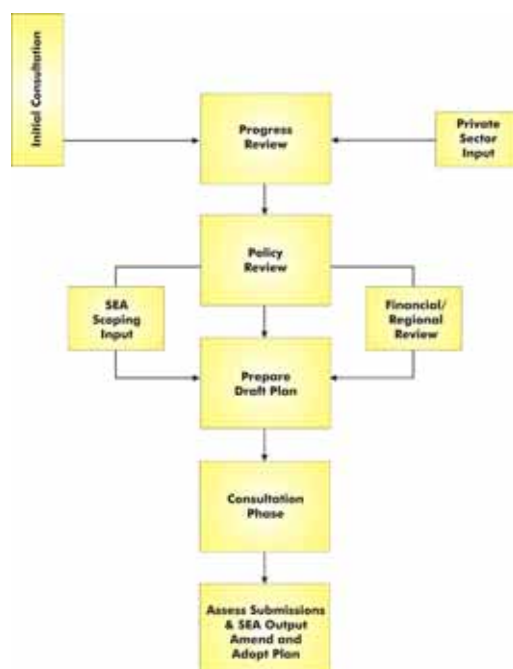


Figure 15.1 Overview of Plan Review

In tandem with the Plan, a pilot Strategic Environmental Assessment (SEA) has been undertaken by the Midlands Local Authorities on a non-statutory basis.

A SEA involves an assessment of the likely significant effects of Plans and Programmes (and modifications thereof) prior to their adoption and will generally apply to Plans and Programmes which are prepared or adopted by an authority at national, regional or local level.

The objective of the SEA process is to ensure that the environmental consequences of various alternative strategies are evaluated and considered during the

planning process. The requirements for SEAs are set out in the SEA Regulations which came into force on 21<sup>st</sup> July 2004 and which transpose into Irish law the EU SEA Directive 2001/42/EC.

A full description of the SEA process is provided in Chapter 18.

## 15.5 ISSUES CONSIDERED IN THE REVIEW

At the outset of the review process, the current situation with regard to waste generation and management methods was assessed, using the year 2003 and combining information from the Local Authorities own facilities and services and the private waste sector (as reported in their collection permit and facility 'Annual Environmental Reports'). The results of this assessment are presented in Part 2 of this Plan.

A 'policy review' followed, whereby issues identified during the consultation and data collection phases were assessed, and the implications of new policies and legislation were considered. In general for each of the topics covered, the current performance of the Midlands Region was assessed and compared to the original policy targets and also to current best practice in Ireland and internationally.

Feedback from the consultation process helped set the agenda for the review. Where appropriate alternatives were considered, and improvements to the existing Waste Management Plan - and how it is implemented by the Local Authorities - were suggested.

The central guiding document in the review process was the 2004 National Policy Statement *'Taking Stock and Moving Forward'*, which built on previous policies - namely *'Changing our Ways'* (1998) and *'Delivering Change'* (2001) - and set the agenda for the Regional Waste Management Plan review by identifying 20 'Key Points' for improvement in waste management in Ireland in the coming years.

## 15.6 MAIN CONSIDERATIONS GOING FORWARD

Progress towards meeting the adopted Regional Targets and the long-term treatment strategies were assessed during

the Review process. The EU Landfill Directive (1999) has imposed strict mandatory limits on the amount of biodegradable municipal waste (BMW) that can be landfilled in the Region going forward and therefore will have a significant affect on residual waste treatment in the Region.

Similarly the recent Draft National Biodegradable Waste Strategy (2004) has set requirements for disposal of biodegradable municipal waste at landfills. The effect of these instruments will be to continue to divert waste away from landfill and up the waste hierarchy ladder towards prevention and reuse/recycling.

Table 15.2 shows the mandatory requirements of the EU Landfill Directive and the National Biodegradable Waste Strategy respectively for the specified target years of 2009 and 2016.

**Table 15.2 BMW – Mandatory Requirements**

| <b>EU Landfill Directive 1999</b>                                                                  |
|----------------------------------------------------------------------------------------------------|
| By <b>2009</b> only 50% of the total BMW generated in the Region in 1995 can be landfilled.        |
| By <b>2009</b> approximately <b>46,000</b> tonnes of BMW can be landfilled in the Midlands Region. |
| By <b>2016</b> only 35% of the total BMW generated in the Region in can be landfilled.             |
| By <b>2016</b> approximately <b>32,000</b> tonnes of BMW can be landfilled in the Midlands Region. |
| <b>Draft National Biodegradable Waste Strategy 2004</b>                                            |
| By <b>2009</b> only 24% of the total annual BMW produced in the Region can be landfilled.          |
| By <b>2009</b> approximately <b>42,000</b> tonnes of BMW can be landfilled in the Midlands Region. |
| By <b>2016</b> only 13% of the total annual BMW produced in the Region can be landfilled.          |
| By <b>2016</b> approximately <b>28,000</b> tonnes of BMW can be landfilled in the Midlands Region. |

*Note: These requirements may be delayed if Ireland receives a derogation from the EU but to date this has not been applied for.*

In order to reduce the level of biodegradable content of the residual waste stream being disposed to landfill, it will be necessary to

progress quickly the integrated infrastructure in the Region including:

- Sustained promotion of waste prevention and minimisation.
- Expansion of the dry recyclable collection.
- Introducing separate collection of the biodegradable waste in the Region.
- Developing Biological and Thermal Treatment capacity options for the Region.
- Developing alternative pre-treatments in the Region such as Mechanical Biological Treatment (MBT) or Mechanical Separation.

In the short term, it will be necessary to address the issue of residual waste treatment in the absence of alternative options such as thermal treatment. The requirement to reduce the biodegradable content of waste going to landfill makes the requirement for pre-treatment of the mixed residual municipal waste stream urgent in the Region. However the long-term sustainability of MBT type facilities is uncertain and securing end-use markets remains the key challenge.

## 15.7 POLICY STATEMENT

In line with National Policy the Midlands Waste Management Plan will have its fundamental strategy grounded in the concept of an integrated waste management policy on a regional basis. Priority will be assigned in accordance with the EU and National waste hierarchy with a strong emphasis on waste prevention and minimisation.

The future policy shall take cognisance of all-relevant and pending regulations, recognise priority waste streams, and promote sustainable waste management practices at local, business and industrial level.

**Policy Statement Objectives:**

- Local Authorities will promote campaigns to meet the long-term challenge of waste prevention and minimisation at the household and business level.
- An integrated management approach will be applied to waste generated respecting the EU Waste Hierarchy of treatment solutions – reuse, maximum recycling, energy recovery and minimum landfill disposal.
- Local Authorities will encourage the development of sustainable waste management technologies and services for the Region whilst delivering European and National targets.
- It is a goal to create equity of access to waste management facilities and services across the Region.
- Waste treated or disposed of at landfill in the Region will be done in accordance with highest environmental standards without causing environmental pollution.
- The Midlands Local Authorities shall direct waste to licensed facilities with preference to facilities, which are higher up the EU Waste Hierarchy. This will be achieved by means of the Waste Collection Permit system or other appropriate regulatory or enforcement measures.

**15.7.1 Waste Prevention and Minimisation**

Waste Management Policy will prioritise waste prevention and minimisation at source as a key strategy component focusing on delivering more tangible success in waste reduction. This will be focused at household, commercial and industrial levels and will take account of new initiatives in this area such as the establishment of a National Waste Prevention Programme.

The strategy will focus on furthering education objectives on waste management, targeting schools, householders, industry, resident associations, community groups, etc.

**15.7.2 Waste Collection**

Waste collection policy will be centred on the expansion of collection services to maximise coverage throughout the Region. The existing two-bin system will be extended to

include the separate collection of biodegradable waste from householders.

The planned three-bin system will consist of a mixed residual waste bin and different bins for the separate collection of dry recyclables and biodegradable waste (kitchen and garden waste).

The principle of direct use-based charges i.e. Pay-by-weight/use, which charges the user according to weight/volume of waste generated shall be fully implemented throughout the Region.

**15.7.3 Waste Reuse and Recycling**

Waste Reuse and Recycling policy shall focus on a partnership approach with the waste industry to improve the level of access to an integrated recycling system for households and business with an emphasis on maximising recycling rates in the Region and the recovery of high quality resources.

**15.7.4 Energy Recovery**

Energy Recovery Policy will focus on the provision of infrastructure to recover energy value from residual waste (municipal, agriculture and non-hazardous industrial waste streams) after maximising recycling.

**15.7.5 Waste Disposal**

Waste Disposal Policy shall consider the medium to long-term options for rationalisation of landfills in the Region, taking account of residual capacities and timetables for alternative treatment options.

**15.7.6 Priority Waste Streams**

Specific policy recommendations are directed towards priority wastes as identified through the EU Directives and National Objectives.

**15.7.7 Provision of Integrated Infrastructure**

It shall be a requirement that private waste collectors who collect waste in the Midlands Region shall be obliged to provide an integrated range of waste facilities including Civic Amenity Facilities or Bring Banks funded from household collection charges and shall co-operate with local authority efforts to raise awareness and provide waste prevention methods.

**15.8 TARGETS**

The proposed policy prioritises prevention as a key focus area for the duration of this Plan.



The overall targets for the Region by 2013 remain, for the combined household, commercial, industrial and C&D waste streams as follows:

- Recycling 46%
- Recovery (Energy) 37%
- Disposal 17%

## **15.9 ZERO WASTE**

Zero Waste is a holistic policy on which there has been much focus in recent times. The Zero Waste philosophy has been interpreted as 'zero waste generation' as opposed to its true aim which is zero waste to disposal. The Zero Waste policy focuses on a whole life approach to the management of waste focusing on resource management, sustainable product design and setting as its aim zero waste to disposal by moving the management of waste up the hierarchy.

The Plan supports this general approach to waste management but also recognises the need to develop infrastructure to meet the residual waste management needs of the Region in the short to medium term. The Plan has adopted an integrated strategy to deliver ambitious recycling targets whilst minimising the need for landfill in the Region. In addition the Plan has set extensive waste prevention and minimisation objectives and targets and is focused on delivering treatment solutions up the waste hierarchy.

## 16 SPECIFIC POLICIES AND OBJECTIVES FOR MUNICIPAL, INDUSTRIAL AND AGRI WASTES

### 16.1 INTRODUCTION

The Policy outlined in this Plan continues to endorse the EU Waste Management Hierarchy and an integrated approach in delivering waste management solutions. This model follows on from the original Midlands Waste Management Strategy (1999) and subsequently the Midlands Waste Management Plan (2001).

In order to achieve the policies set out in this chapter, specific policy objectives and targets have been developed. These targets, which are to be achieved within the life of this plan (2010), are based on current and projected waste management data for the Region and advance waste management further in the Region. The Region has a responsibility to achieve the various National Targets as set down in:

- Changing Our Ways (1998).
- Taking Stock and Moving Forward (2004).
- Draft National Biodegradable Waste Strategy (2004).
- Delivering Value for People - Service Indicators in Local Authorities (2004).

### 16.2 WASTE PREVENTION AND MINIMISATION

Waste Prevention and Minimisation remains the primary waste management objective for the Region. Since preparation of the original Plan waste growth has continued in the Region at a rate in excess of economic and population growth.

This trend presents serious concerns for the future, particularly with a forecast for continued economic growth on a national level. Because there is a difficulty in seeing tangible progress in waste prevention and minimisation, the need to follow a defined and focused policy is paramount to achieving progress in this area.

It is considered that any success in Waste Prevention and Minimisation will depend on the commitment to prioritise prevention, the provision of adequate resources and the assignment of dedicated staff to focus on the main target groups:

- Household and Community Level (including schools)
- Commercial and Industrial and other waste producers

Any initiatives at a local level require support from national programmes, to ensure that an effective and integrated programme is developed and maintained for the Midlands Region.

At a national level, it is expected that the National Waste Prevention Programme (NWPP) and other initiatives will generate funding, information and guidance on many issues in support of the implementation of regional waste prevention programmes and these should be fully utilised within the Midlands Region.

A continuation of the Race Against Waste Campaign supported at local level will raise awareness of the options available to the general public, businesses and industry. Information is available on the Race Against Waste website ([www.raceagainstwaste.ie](http://www.raceagainstwaste.ie)).

#### 16.2.1 Household & Community and School Level

Currently, Environmental Awareness Officers (EAOs) working on behalf of the Local Authorities are making progress in increasing awareness of waste prevention at the household, community and school level. Education programmes and schemes are run throughout each year and continued education coupled with adequate resourcing are vital in promoting waste prevention and minimisation practices.

The Local Authority Home Composting Scheme is a typical on-going awareness campaign and continued support and promotion is required to ensure it remains a viable long-term strategy for minimising household waste generation and indirectly tackling the problem of backyard burning.

Community based schemes are similarly effective and are supported by the Local Authorities but to date have been slow to develop in the Region.



**Policy:**

**The Local Authorities will commit to prioritising waste prevention and minimisation at the household and community level as outlined in the EU and Irish waste hierarchy.**

**Objectives:**

- Local Authorities shall continue to support and finance the role of the EAOs on a permanent basis.
- EAOs shall be dedicated primarily to waste awareness and education at the community and household level.
- EAOs shall continue to promote the home composting campaign with added focus on households which do not have separate collection of organic waste.
- Local Authorities shall continue to work in tandem with National Initiatives including the Race Against Waste Campaign and the National Waste Prevention Programme.
- The Green Schools Programme will continue to be supported and developed by the EAOs.
- The EAOs will support and assist community groups wanting to set up/run sustainable community recycling initiatives.

**Targets to 2010:**

- The promotion and roll-out of home composting to 20,000 householders, community groups and schools in the Region by the end of 2009.
- Education programmes/campaigns focusing on waste prevention for householders will be organised at least twice a year.
- By the end of 2009 each Local Authority will assist in the development of a sustainable community-led recycling initiative.
- The development of a Regional Awareness Strategy and Campaign supported by the establishment of a Regional Awareness Website [www.MidlandsWaste.ie](http://www.MidlandsWaste.ie) should be considered by end 2005.
- By the end of 2005, the Local Authorities will also provide a link to the Race Against Waste website ([www.raceagainstwaste.ie](http://www.raceagainstwaste.ie)) in a prominent position on their own dedicated homepage.

**16.2.2 Local Authorities**

Local Authorities, as major employers, consumers and waste producers in the Region need to play their role in the prevention of waste in-house.

**Policy:**

**The Local Authorities shall adopt a sustainable environmental management approach within their organisations and promote waste prevention and minimisation as much as possible.**

**Objectives:**

- Increase waste prevention and encourage a 'paper free' office culture in each Local Authority.
- Investigate tendering for green procurement on a Regional basis.

**Targets to 2010:**

- An audit should be undertaken in each Local Authority with regards to the current in-house practices on waste prevention and minimisation by mid 2006 and an action plan compiled.
- By end of 2006 each Local Authority will phase out the use of disposable catering products in their canteens.
- All printers will default to double-sided.

**16.2.3 Commercial & Industrial Level**

The current level of waste prevention/minimisation at the commercial and industrial level is similar to that which prevailed before the original Plan was adopted. The primary reason for this situation was a lack of resources to tackle waste prevention at the industrial/commercial level.

The size of the Region together with the economic growth anticipated will warrant further resources to improve waste prevention in this sector.

**Policy:**

**The Local Authorities will commit to prioritising waste prevention and minimisation at the commercial and industrial level as outlined in the EU and Irish Waste hierarchy.**

**Objectives:**

- Target waste prevention at the business and industry level by the appointment of Green Business Officers (GBOs) in each county, subject to funding.
- Creation of the new appointments will be contingent on finance through central funding or other sources such as the National Waste Prevention Programme, Cleaner Greener Production Programme, and private sector sponsorship.
- Local Authorities shall continue to work in tandem with National Initiatives including the Race Against Waste Campaign, and the National Waste Prevention Programme.

**Targets to 2010:**

- Each Local Authority will employ a Green Business Officer to be specifically assigned to Waste Prevention and Minimisation at the Commercial and Industrial level. A total of five new positions, one in each Local Authority, are recommended to be appointed from 2006.
- Seminars, workshops and campaigns/programmes focusing on waste prevention and minimisation for business and industry will be run by the GBOs at least twice annually.

**16.3 WASTE COLLECTION****Uncollected Waste**

The Local Authorities recognise that there exists a high proportion of households in the Region that currently do not avail of a collection service. This is currently estimated at 37%. It should be recognised however that many of these households dispose of their waste at local transfer stations/Civic Amenity Facilities or directly to the regional landfills.

In addition, particularly in rural areas, there may be sharing of waste collection services by neighbours thereby reducing the charges that they have to pay. It is likely therefore that the true level of households who are not disposing of their waste correctly, i.e. illegal disposal or 'backyard' burning, is significantly less than the 37%.

**Policy:**

**Recognising that the levels of uncollected waste remain unacceptably high in the Region, the Local Authorities shall endeavour to determine the extent of uncollected waste in the Region and to eliminate 'environmentally unfriendly' and illegal practices relating to the collection and disposal of household waste.**

**Objectives:**

- Reduce the percentage of uncollected waste amongst householders in the Region.
- Survey householders to determine both the extent of uncollected waste in the Region and the method of disposal for householders without a collection service.
- Support any national initiatives to ban in-sink macerators.
- Investigate the possibility of introducing Bye-Laws to make it illegal to use backyard burners for disposing of waste.
- Increase enforcement proceedings against householders identified as disposing of waste illegally as required.<sup>(1)</sup>

<sup>(1)</sup>The Draft National Biodegradable Waste Strategy outlined a DEHLG intention to introduce legislation such that a simple and effective sanction can be imposed by the Local Authority where illegal burning of waste is identified.

**Targets to 2010:**

- Complete a household survey on waste collection by the end of 2006. A public awareness programme highlighting the environmental issues with backyard burning and illegal dumping should accompany the survey.
- Following on from the survey, a target for the reduction of uncollected waste by 2010 should be set.
- Examine various options for extending collection services to areas not served at present by private operators where need is clearly established.

**Collected Waste**

Central to a successful waste management system is the segregation of waste streams to recover the maximum quantity and quality of waste suitable for recycling, recovery and composting. The collection system in the

Midlands will continue to be based on an integrated system of door-to-door collection, Bring Banks and Civic Amenity Facilities.

The introduction of a two-bin system in the Midlands has been a major contributing factor to increased recycling levels. However, the EU Landfill Directive (1999) has imposed limits on the amount of biodegradable waste that can be landfilled. This mandatory requirement necessitates a concerted effort to collect biodegradable waste through separate collection of dry recyclables and organic material.

It is considered that a three-bin collection system in the Region will allow for the optimum collection and recovery of clean source-separated organics. The biological treatment of this material through composting or a similar technology will generate a valuable end-product, which can be utilised in land recovery projects or, depending on the quality, sold on as a product. The development of sustainable outlets for this material is essential in the long-term.

In addition it is necessary to pre-treat the mixed residual municipal and industrial waste streams prior to landfilling to reduce the Biodegradable Municipal Waste (BMW) going to landfill. Pre-treatment by mechanical separation is the minimum requirement.

The Local Authorities will ensure that collection systems control the flow of waste to higher levels of the Irish and EU Waste Hierarchy using the collection permit system.

#### Policy:

**The Local Authorities will regulate a three-bin collection service to householders, businesses and industry in the Region. The three-bin system will allow for the separate collection of mixed residual waste, dry recyclables and organics at their source in accordance with the preferred strategy set out in the Draft National Biodegradable Waste Strategy (2004).**

#### Objectives:

- An integrated three-bin collection service shall be implemented in the Region for the separate collection of mixed residual waste, dry recyclables and organics from householders and commercial businesses.

- The continued expansion of the existing dry recyclable collection to householders and commercial operations.
- The Midlands Local Authorities will investigate the provision of a yearly collection of household hazardous waste.
- The National Hazardous Waste Management Plan (NHWMP) is currently under review. The Midlands Plan will continue to have regard to the recommendations of the replacement NHWMP.
- The pre-treatment of mixed municipal and industrial waste shall be required prior to landfilling.
- Improve the collection of data and annual reporting from waste collectors to ensure a consistent approach to waste recording and statistics in the Region.
- Regulate the collection of waste in skips, by defining the appropriate locations and standards of waste presentation required.

#### Targets to 2010:

- The requirement for the separate collection of biodegradable waste shall be introduced through the waste collection permitting system to all permit holders from 2006.
- Roll-out of collection service for organic waste to a minimum of 50% of the Region's householders by the end of 2009.
- Roll-out of the collection service for dry recyclables to a minimum of 70% of the Region's householders by the end of 2009.
- Roll-out of the service for the separate collection of dry recyclables and biodegradable waste to all commercial operations in the Region by end of 2009.
- Local Authorities shall work with waste collectors to ensure that separately collected organic (kitchen/food and garden) waste collected in the Region is treated separately to ensure a high quality compost product.
- Local Authorities shall work with waste collectors to ensure that mixed municipal and residual waste collected in the Region is pre-treated prior to disposal to landfill from 2007 onwards.

- Standardise the annual environmental reporting from permitted waste collectors across the Region from 2006.

## 16.4 WASTE REUSE AND RECYCLING

The reuse of waste is a preferred solution to waste treatment in terms of the waste hierarchy and provides another means of reducing the quantity that is ultimately sent for thermal treatment or landfill. This is a high priority area to be developed over the period of this plan.

Recycling of waste remains the most visible and tangible waste management practice engaged in by the public and regional recycling levels have continued to grow.

### 16.4.1 Household & Community Level

At household and community level it is imperative that awareness and education on reuse is further developed. Businesses and facilities, which accept and reuse items, otherwise considered as waste, should be identified and promoted.

Charitable organisations accept many items provided that they are in good working order, including electrical/electronic items. In addition the provision of a reuse/repair workshop at Civic Amenity Facilities is recommended to promote reuse in the Region.

The recycling targets for the Midlands Region are ambitious, but can be achieved based on the provision of suitable recycling infrastructure i.e. Civic Amenity Facilities and Bring Banks.

Provision of additional Civic Amenity Facilities will generally be sited near high-density population areas, with consideration of access and convenience of location being key factors in siting these facilities.

Significant progress has been made in the last 5 years on the development of an extensive Bring Bank network in the Region although with the population increasing in the Region additional Bring Banks will continue to be required. Whilst it will be a general policy to increase the Bring Bank density in the Region, it is considered that the distribution of Bring Banks and the proximity

and ease of access of banks are more important considerations than a simple per capita frequency particularly when comparing rural and urban areas.

Feedback from consultation forums has identified the public's desire for more transparency in the end markets for recyclables. At present, the bulk of recyclable materials are exported out of the Region and typically abroad for recycling. Issues that need to be addressed include the distinction between collection, sorting, and processing and the difficulties in establishing end markets both Regionally and Nationally.

### Policy:

**Local Authorities shall continue to promote and develop reuse and recycling at the household and community level to achieve the Regional targets whilst respecting the EU Waste Hierarchy.**

### Objectives:

- Environmental Awareness Officers shall continue to promote waste reuse and shall research the opportunities for waste reuse/repair.
- A trial waste reuse/repair event shall be run in the Region, with an increase in the scheme to be considered based on the uptake.
- The continued development of Civic Amenity Facilities across the Region. The private sector is to assist in providing these facilities in counties where they collect municipal waste and to fund their ongoing operation.
- Existing and proposed Civic Amenity Facilities will, where possible, accept a wider variety of materials specifically WEEE, green waste, household hazardous waste and household C&D waste.
- The opening hours of Civic Amenity Facilities will be extended to cover weekends/outside normal work hours where local conditions allow.
- All waste infrastructure (Bring Banks, Civic Amenity Facilities) should be regularly serviced and maintained to ensure that their capacity is being optimized.
- The Local Authorities will maintain a good distribution of Bring Banks across the Region.

- Bring Banks will continue to be the primary means for the collection of household glass in the Region.
- Standardise reporting of waste collected at Civic Amenity Facilities and Bring Banks across the Region.
- An indicative audit of the current routing and destination of recyclables will be carried out in one county over the life of the Plan.
- The Local Authorities shall liaise with National Market Development Groups for recycled materials and implement any new initiatives.

#### Targets to 2010:

- A trial waste reuse/repair event shall be developed and run in the Region by 2007. Depending on the success of the scheme, similar events may be developed in each Local Authority area.
- Additional Civic Amenity Facilities should be developed in each Local Authority area by 2010 as detailed in Table 16.1 below. The location of each facility will be finalised prior to development.

**Table 16.1: Civic Amenity Facilities**

| Local Authority | Existing | Additional | Total |
|-----------------|----------|------------|-------|
| Offaly          | 3        | 1          | 4     |
| Longford        | 1        | 1          | 2     |
| Laois           | 1        | 2          | 3     |
| North Tipperary | 2        | 2          | 4     |
| Westmeath       | 2        | 0*         | 2*    |

\*Consideration given to smaller civic amenity type facilities with limited materials and opening hours.

- Civic Amenity Facilities (existing and proposed) should include the provision for accepting WEEE, green waste material and household hazardous waste by 2010 if space exists.
- Provide an approximate Bring Bank density in the Region of 1:1,250 people by 2010.
- Trial community operated bring facilities, such as the "Adopt a Bring Bank" Scheme, accepting a wider range of materials should be established in the Region by 2007. Depending on the success of the scheme, similar facilities should be

encouraged throughout the Region during the Plan period.

- A similar 'Adopt a Bring Bank' scheme will be piloted in schools within the Region by 2007.
- The reporting procedure for materials accepted at reuse workshops, Civic Amenity Facilities, and Bring Bank facilities should be formalised across the Region from 2006.

#### 16.4.2 Local Authorities

Local Authorities, as major employers, consumers and waste producers in the Region need to play their role in the recycling and reuse of waste.

#### Policy:

**The Local Authorities shall adopt a sustainable environmental management approach within their organisations to address green procurement, reuse and recycling.**

#### Objectives:

- Implement green procurement of office stationery in each Local Authority.
- Increase reuse and recycling in each Local Authority.

#### Targets to 2010:

- An audit should be undertaken in each Local Authority with regards to the current in-house practices and policies for reuse and recycling by mid 2006 and an action plan compiled.
- Where possible all office stationery products are to be purchased from sustainable product companies by the end of 2006 as follows:
  - Paper products (pads, jotters, plain headed, 'post its', envelopes etc) to be 100% recycled post consumer waste.
  - Plastic products (pens, biro rulers) to be recycled post consumer plastic waste.
- By end of 2006 each Local Authority will discourage purchase of restaurant products with non-recyclable packaging in their own in-house canteens.

- By end of 2006 each Local Authority will
  - Improve recycling from staff restaurants and introduce a separate collection for organic (food) waste.
  - Ensure all toner cartridges are recycled.
  - Achieve 90% recycling of all paper and cardboard.
  - Provide facilities for battery recycling.
- All printers will default to double-sided.
- By end of 2006 all Council Policy Documents will be printed on recycled paper.

#### 16.4.3 Commercial & Industry Level

The awareness and practical experience of reuse of waste at the commercial and industrial level is limited in the Region. Communication between waste producers at this level may raise awareness of successful practices or reuse options for waste streams, or identify waste streams that may be suitable raw materials for another company.

Recycling of waste material from the commercial and industrial sector has improved with the packaging regulations, but there is a need to continue to enforce these regulations and to ensure that recycling is being maximised.

##### Policy:

**Local Authorities shall continue to promote and develop reuse and recycling at the Commercial and Industrial level to achieve the Regional targets whilst respecting the EU Waste Hierarchy.**

##### Objectives:

- Local Authorities, through Green Business Officers, shall facilitate workshops in order to identify any opportunities that may arise to reuse waste streams that are being produced at business/industry level, and to disseminate information on successful waste reuse practices.

##### Targets to 2010:

- One reuse/recycling workshop per year to be held for the business and industry sector in the Region.

#### 16.4.4 Construction/Demolition Level

The current level of recycling in the construction industry is commendable, but long term, there must be a move towards recycling higher value products and using these in areas where currently virgin aggregates are being used. The Region has carried out the first national trials using materials such as crushed concrete and bituminous planings. This trial must be expanded to other materials, and the results of all trials reported.

##### Policy:

**The Local Authorities shall adopt a sustainable life-cycle approach to new construction projects.**

##### Objectives:

- The use of recycled materials in construction projects shall be supported in the Region, with trial projects to be undertaken for new materials.
- The Local Authorities shall adopt a green procurement approach in future tendering processes for public infrastructural projects and should specify recycled materials where possible.
- The Local Authorities shall work with the NCDWC to implement the Voluntary Initiative launched by the Council in 2004.

##### Targets to 2010:

- Recycled materials will be trialled and reported in as many construction projects as possible by 2010.
- Green tendering shall be introduced on all new Local Authority funded infrastructural projects from 2006 onwards.

### 16.5 BIOLOGICAL TREATMENT

In April 2004 the DEHLG published a Draft National Strategy for Biodegradable Waste. The Strategy focuses on the diversion of biodegradable municipal waste or BMW i.e. (food, green waste, paper etc.) from landfill,

in order to meet the mandatory requirements under the EU Landfill Directive (1999).

The implications of the Directive in terms of the landfilling of BMW are shown in Table 16.2 below. The Draft Strategy has significant implications for all Local Authorities. It is anticipated that the Strategy will be finalised and adopted in 2005.

**Table 16.2 EU Landfill Directive Targets**

| Year | Limit imposed by EU Landfill Directive on the Landfilling of BMW |
|------|------------------------------------------------------------------|
| 2006 | 75% of BMW landfilled in 1995                                    |
| 2009 | 50% of BMW landfilled in 1995                                    |
| 2016 | 35% of BMW landfilled in 1995                                    |

The document firmly favours a policy of separate collection of municipal organic waste from household and relevant businesses, with biological treatment applied to produce high-grade compost products.

There is currently however no mechanism for the Local Authorities to force waste collectors to develop facilities for the pre-treatment of waste prior to disposal at landfill and additional legislation is required in this regard.

#### **Green Waste**

It is anticipated that household green waste will be collected primarily in the separate door-to-door collection system in the Region. The continued promotion and expansion of home composting throughout the Region will also reduce green waste arisings.

At present however there are no facilities for the collection and recycling of Green waste from the commercial sector.

#### **Policy:**

**The Local Authorities shall reduce the quantity of biodegradable waste disposed of to landfill in accordance with the mandatory requirements of the EU Landfill Directive (1999) and the targets set out in the Draft National Biodegradable Waste Strategy (2004).**

#### **Objectives:**

In line with the favoured policy set out in the Draft National Biodegradable Waste Strategy the Midlands Local Authorities will:

- Implement a policy of separate collection of organic waste from urban households and relevant businesses.
- Support the development of biological treatment facilities in the Region that can be shown to be consistent with the overall objectives of the Plan and have regard to principles of good siting.
- Support the development of biological treatment facilities for the co-treatment of agricultural wastes and municipal organic waste.
- Support the development of end-markets for the development of compost.
- Existing and proposed Civic Amenity Facilities will be expanded (where possible) to accept green waste material.
- The Local Authorities will engage and encourage commercial operators/farmers to develop green waste facilities.

#### **Targets to 2010:**

- Biological treatment with a minimum total capacity of 30,000 tonnes per annum will need to be provided in the Region by 2010.
- Existing and proposed Civic Amenity Facilities will be expanded where possible to accept household green waste by 2010 where possible.
- Local Authorities shall investigate and support the end-markets for materials from biological treatment facilities in line with National policy and guidance.

## **16.6 MATERIALS RECOVERY FACILITIES/WASTE TRANSFER STATIONS**

The Midlands is currently served by four Materials Recovery Facilities/Waste transfer Stations. It is anticipated that these facilities will be expanded should the demand arise.

At present these facilities generally sort and recover dry-recyclables separately collected from door-to-door collections, Bring Banks and Civic Amenity Facilities for transfer on to recycling process facilities, generally overseas.

Additional facilities may be required in the future to accommodate an expansion of



door-to-door collection schemes or to transfer waste to biological or thermal treatment facilities.

The facilities in the Region, with the exception of privately operated facilities in Co. Longford and Co. Westmeath, do not process mixed municipal waste to recover the organic fraction. The basic mechanical separation uses a combination process of a shredder and a trommel to separate out the organic material from the mixed stream. This type of system is a simple method of pre-treatment and will reduce the level of biodegradable waste going to landfill. The development of future Materials Recovery Facilities (MRFs) for the processing of mixed municipal waste in the Region should contain this set-up as a minimum.

#### Policy:

**The Local Authorities shall support the development of additional transfer facilities where they can be shown to be consistent with the overall objectives of the Plan and have regard to good principles of siting.**

#### Objectives:

- Local Authorities shall ensure that MRFs and Waste Transfer stations are operated in compliance with Waste Permits and the expansion of existing facilities to include pre-treatment technology is supported.

#### Targets to 2010:

- Local Authorities shall ensure that the future development of MRFs in the Region include provision for the pre-treatment of mixed municipal and industrial waste prior to disposal to landfill from 2007 onwards.

## 16.7 THERMAL TREATMENT

The continued education and promotion of waste prevention and the proposed ambitious recycling targets proposed for the Midlands Region will reduce the amount of waste going to landfill. However a residual fraction of municipal, agri and non-hazardous industrial waste streams will remain, requiring further treatment.

Thermal treatment is acknowledged in environmental terms as being more favourable than disposal to landfill and this is supported by EU and National policy.

An assessment of future waste management options in the Midlands Region confirms that the BMW targets set out in the EU Landfill Directive and the Draft National Biodegradable Waste Strategy for diversion of biodegradable waste from landfill will not be achieved without thermal treatment.

Thermal treatment will continue therefore to be an important element of waste management policy in the Midlands for non-recyclable waste. It will also provide a cost effective treatment system in the context of the Midlands Region.

The development of such a thermal treatment facility will require a siting study, preparation of an Environmental Impact Statement, Planning Permission, Waste Licence, tender competition and construction period. This process could take a period in excess of 5-7 years to complete. In the interim residual waste will be primarily landfilled.

#### Policy:

**In order to support an integrated approach to waste management in the Region, after waste prevention and minimisation, and maximum recycling measures have taken place, non-hazardous residual waste (municipal, industrial and agri) from the Region shall be directed to thermal treatment in preference to landfill in line with the EU waste hierarchy. It is estimated that a minimum capacity of 150,000 tpa will be Required.**

#### Objectives:

- A thermal treatment facility is required for the Region in order to meet the Plan targets. The Local Authorities shall facilitate the provision of thermal treatment in the Region. A Public Private Partnership arrangement, or similar approach, may be considered.
- Pending the provision of such a treatment facility account shall be taken of thermal treatment developments in neighbouring regions.

- The Local Authorities shall explore the mechanisms, for directing municipal waste, which cannot reasonably be recovered, to treatment methods in line with the EU waste hierarchy. This shall include the thermal treatment of waste in preference to landfill disposal in the event of such thermal treatment capacity becoming available for the Region.

#### **Targets to 2010:**

- During 2006, the Local Authorities will engage with the private sector in order to determine the commercial interest in developing such a facility. Such an assessment will take account of developments in neighbouring regions and the possibility of regional co-operation.
- Following consultation with the private sector, the Local Authorities will facilitate a siting study for a thermal treatment facility.

### **16.8 MECHANICAL SEPARATION AND MECHANICAL BIOLOGICAL TREATMENT (MBT)**

The EU Landfill Directive (1999) has imposed strict limits on the amount of biodegradable municipal waste (BMW) that can be landfilled going forward. Similarly the Draft National Biodegradable Waste Strategy (2004) has set targets for BMW as shown in Table 16.3.

**Table 16.3: BMW – Mandatory Requirements**

| <b>EU Landfill Directive 1999</b>                                                    |
|--------------------------------------------------------------------------------------|
| By 2009 only 50% of the total BMW generated in the Region in 1995 can be landfilled. |
| <b>Draft National Biodegradable Waste Strategy 2004</b>                              |
| By 2009 only 24% of the total annual BMW produced in the Region can be landfilled.   |

To reduce the level of biodegradable content of the residual waste stream being disposed of at landfills, it will be necessary to pre-treat the mixed residual municipal and industrial waste streams prior to landfilling. Reduction in the biodegradable content of the residual

waste stream can be achieved through processes such as Mechanical Biological Treatment (MBT) or Mechanical Separation.

MBT is a generic term, which has come to embrace the use of several mechanical and biological process elements that are combined in a wide variety of ways. The mechanical and biological process elements can be integrated to create an MBT process.

An MBT process treats mixed municipal waste by mechanically removing some parts of the waste and by biologically treating others so that the residual fraction is smaller and more suitable for a number of possible end uses. Outputs from MBT processes include materials captured for recycling (metals, glass and inerts), compost-like residues, waste-derived solid fuels and in some cases biogas which all require sustainable end markets.

MBT processes can significantly reduce the biodegradable content of the municipal waste stream prior to landfilling. However, securing long-term outlets for the various outputs from MBT processes is a significant challenge which could undermine the long-term viability/sustainability of these processes. The future development of the three-bin system in the Region and a potential Waste-to Energy facility will further challenge the long-term viability of MBT processes.

Pre-treatment by mechanical separation is a basic process, which can reduce the biodegradable content of the mixed municipal waste stream. This type of processing typically uses a combination of a shredder and a trommel to separate out a reasonable fraction of the biodegradable material from the mixed stream. This type of system is currently operational at two facilities in the Region (Longford and Mullingar).

In order to meet the mandatory requirements of the EU Landfill Directive (1999), the development of pre-treatment type facilities will be required to process mixed municipal waste.

There is currently no mechanism for the Local Authorities to force waste collectors to develop facilities for the pre-treatment of waste prior to disposal at landfill and additional legislation is required in this regard.

**Policy:**

**It shall be a policy that the pre-treatment of mixed municipal and industrial waste shall be required prior to landfilling in the Region in the short term to comply with the EU Landfill Directive pending the development of a Waste to Energy facility.**

**Objective/Target to 2010:**

- Local Authorities shall ensure that waste collectors pre-treat mixed municipal and residual waste collected in the Region prior to disposal to landfill from 2007 onwards.

**16.9 LANDFILL DISPOSAL**

Landfill will have a decreasing role in waste management in the Midlands Region in the future as recycling rates increase and, in particular, biological and thermal treatment facilities become available. The long-term objective is to reduce landfill disposal to just 17% of the waste stream. The Midlands Local Authorities have pursued a policy of rationalisation in recent years with Marlinstown Landfill having closed and this will continue in the long term.

In the short to medium term until such systems are developed there will be a need for significant landfill capacity in the Region. It must however be recognised that the long term viability and need for four landfills in the Region will be impacted by the EU Landfill Directive Targets, by the development of a Waste to Energy facility and by the recycling targets set out in the Plan. The four existing facilities can remain provided the mandatory BMW landfill targets are adhered to as set down in the Draft National Biodegradable Waste Strategy.

The standards of landfill operation have also improved dramatically since the original Waste Management Plan was prepared and each of the four Local Authority landfills are managed to very high standards in accordance with Waste Licences issued by the EPA.

**Policy:**

**The Local Authorities will continue to pursue a policy of regional landfill rationalisation in the long term whilst continuing to operate and maintain landfill facilities to satisfy regional demand, to the highest international standards in accordance with Waste Licences issued by the EPA.**

**Objective:**

- The Local Authorities will continue to ensure they are compliant with all relevant legislation and regulation with respect to landfill disposal.

**Target to 2010:**

- Local Authorities will provide adequate landfill disposal capacity in the Region respecting the mandatory BMW targets and until alternative thermal capacity is available to the Region.

**16.10 CLOSED LANDFILLS**

The Midlands Local Authorities have prepared a list of the former waste disposal/recovery sites previously operated in the Region, in accordance with Section 22(7)(h) of the Waste Management Act 1996.

Since the making of the previous Plan a number of former waste disposal sites in the Region have been remediated and plans have been prepared at several other facilities, refer to Table 10.3 for details. The extent of remediation measures put in place at each of these sites reflects the previous scale and type of waste operations.

A policy direction was issued by the Minister for Environment, Heritage and Local Government on 3<sup>rd</sup> May 2005 under Section 60 of the Waste Management Act, 1996 (as amended) with respect to the investigation of all closed landfills where disposal or recovery activities have taken place. Following on from the direction the EPA will be preparing a Code of Practice for assessing the risk presented by such sites.

**Policy:**

**The Local Authorities will have regard to Section 22(7)(h) of the Waste Management Act, 1996, the Section 60 guidance as issued by the Minister on 3<sup>rd</sup> May 2005 and the Code of Practice when published by the EPA regarding the investigation of former waste disposal/recovery sites in the Region.**

**Objectives:**

- Revise the existing inventory of former Waste Disposal Sites in the Region and provide a summary on the current status of each site, specifically remediation measures to reduce the risk of environmental pollution.
- The inventory shall also encompass the requirements of Section 26(2)(c) of the Waste Management Act (see Section 16.11 below).
- Additional funding will be required to enable the above assessment, investigation and remediation works to be carried out.

**Target to 2010:**

- An updated list of former Waste Disposal Sites in the Region to be finalised as a matter of priority and remediation measures outlined based on site based risk assessments in accordance with the EPA Code of Practice when published.

## 16.11 FORMER HAZARDOUS WASTE DISPOSAL SITES

**Current Situation**

The EPA National Hazardous Waste Management Plan, published in 2001, requires Local Authorities to maintain a '**Section 26 Register**' of sites that are known or suspected of being used for hazardous waste disposal.

The EPA have prepared a risk assessment methodology for compiling a Section 26 Register and ranking sites (refer to Figure 16.1). As well as former waste disposal sites, other potential generators of hazardous waste – e.g. tanneries, petroleum and gaswork sites – need to be considered.

The majority of work required for Stage 1 – Stage 5 is desktop work and requires sharing of resources and information within Local Authorities, and use of other sources. Following Stage 5, a ranking system (A, B, C) can be applied to the sites in order to prioritise whether they are likely to be significant or not.

- Category A – High Priority Sites
- Category B – Medium Priority Sites
- Category C – Low Priority Sites

Site-specific investigation would commence with Stage 6 once a priority list for sites on the Register had been decided. Any remediation would be determined only after Stage 7 – the detailed risk assessment of the site in question. Remediation requirements would be dependent on the nature of the individual site and the specific risks associated with it.

The current situation in the Midlands Region is that to date no Section 26 Registers have been completed, although remediation work in relation to some former waste disposal sites has commenced. The River Basin District (RBD) Studies underway in the Midlands Region will also assist in informing an optimum means of remediation of old sites.

**Policy:**

**The Local Authorities will ensure that their obligations under the National Hazardous Waste Management Plan are fulfilled regarding former hazardous waste disposal sites in the Region.**

**Objective:**

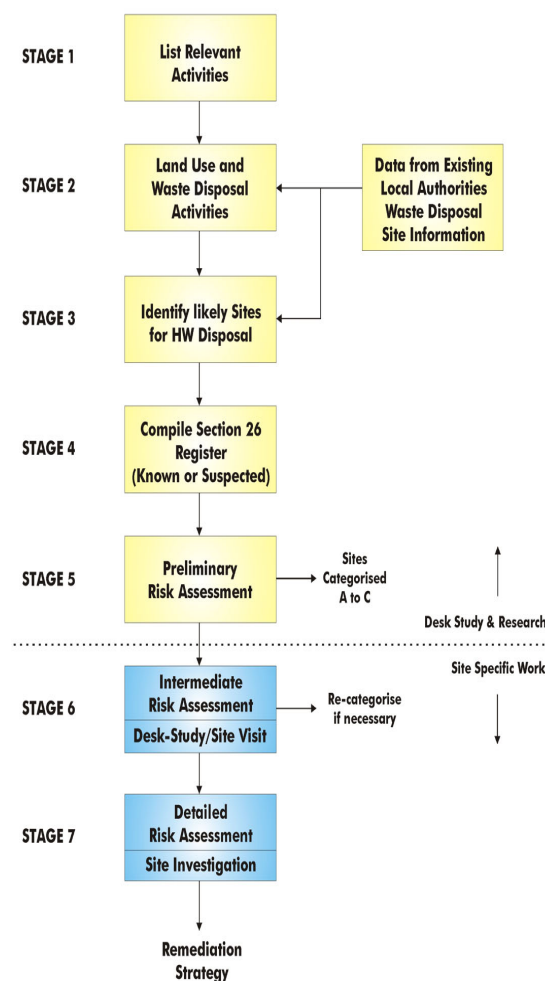
- The Local Authorities will develop a Section 26 Register in response to the NHWMP and the 'risk assessment' methodology set out by the EPA or as amended in their Code of Practice, when published, is to be followed.
- The Local Authorities shall ensure that the cost of any on-site investigation, monitoring and remediation work should be borne by the 'the polluter'.

**Target to 2010:**

- A Section 26 Register will be completed for the Region as a matter of priority and work will commence with a view to making significant progress on the

requirements of Section 26 during the lifetime of the Plan.

Figure 16.1 Development of Section 26 Register



## 16.12 INTER-REGIONAL MOVEMENT OF WASTE

Conditions attached to some planning permissions for waste infrastructure restrict facilities to handling only waste that arises in the geographic area covered by the waste plan, the rationale being the *proximity principle*.

The Government's latest policy document '*Taking Stock and Moving Forward*' (2004), recognises that the proximity principle has been interpreted too severely by some planning authorities and that some but not all planning authorities have been too literal in their interpretation of Waste Management Plans. The policy statement reiterates that each region has to take responsibility for its own waste.

A policy direction was issued by the Minister for Environment, Heritage and Local Government on 3<sup>rd</sup> May 2005 under Section 60 of the Waste Management Act, 1996 (as amended) with respect to the movement of waste.

In line with the policy direction the Waste Plan recognises that there should be more flexibility with respect to the movement of waste across regional boundaries. However the proximity principle should also be taken into account in determining the appropriate scale of any proposed waste facility to cater for waste primarily generated within the Region. In broad terms the capacity of waste facilities in the Region should be in line with the range of capacities required to satisfy the needs of the Region whilst allowing some element of flexibility to cater for the rational development of required National infrastructure in accordance with the policy direction issued by the Minister.

### Policy:

**The proximity principle should be taken into account however it is recognised that there should be flexibility with respect to the movement of waste across regional boundaries and within the Region. The capacity of waste facilities in the Region should, as far as possible, satisfy the needs of the Region whilst allowing some element of flexibility of movement of waste into and out of the Region in line with the policy direction issued by the Minister in May 2005 under section 60 of the Waste Management Act, 1996 (as amended).**

## 16.13 COST RECOVERY

### Policy:

**The Local Authorities will seek to improve levels of cost recovery for waste management services in keeping with the 'Polluter Pays Principle'.**

### Objective/Targets:

- The Local Authorities will continue to employ, adjust and introduce user fees for waste services and facilities and to use the income from these fees to finance measures taken by the Midlands Local

Authorities in accordance with the objectives of this Plan.

- Increase cost recovery for functions such as regulation and enforcement.
- Seek more financial support from industry under industry's *producer responsibility* obligation, regarding packaging but also other materials and sectors and under the *polluter pays principle*.
- Aiming to achieve efficient cost effective facilities for collection, recycling, energy recovery and disposal.
- Benefiting from grant assistance from the governments Environment Fund for appropriate schemes or other grant assistance that may become available from national or EU sources.
- The full cost of collection, sorting and recycling of packaging waste – less the revenue from recyclables – will be recovered from producers of packaging materials as defined in the Waste Management (Packaging) Regulations 2003, as amended.
- Any company collecting household waste will be required to provide the full range of services outlined in this Plan – Bring Banks, dry-recyclables collection, organic waste collection (when introduced by Local Authorities), Recycling Centres and Bulky Waste collection – or alternatively the Local Authorities will recoup the full costs from the private sector for providing these services.
- Using appropriate economic instruments to achieve sustainable waste management.

## 16.14 SITING GUIDELINES

With the exception of the EPA Landfill Manuals 'Draft Manual on Landfill Site Selection' published in 1996, formal siting guidelines for Waste Facilities have not been issued by either the EPA or the DEHLG.

In this Plan, the Midlands Local Authorities have outlined general guidelines for the siting of future waste facilities in the Region. Facilities include:

- Materials Recovery Facilities
- Civic Amenity Facilities
- Biological Treatment Facilities
- Waste to Energy Facilities
- Landfill

The future planning and development of any of the listed facilities will need to have regard to these siting guidelines.

### Policy

**The Local Authorities will ensure that the development of new Waste Facilities in the Midlands Region will adhere to good siting principles as set down in the Waste Plan.**

#### 16.14.1 Siting Guidelines for Civic Amenity Facilities and Materials Recovery Facilities

There are no National or International guidelines on the siting of such facilities but the siting of such facilities should have regard to the following site selection criteria:

- The facility to be placed within an urban area or as near as possible.
- Where practical, consideration should be given to locating the facility in proximity to a strategic transport route
- If development zoning exists an area zoned as industrial is preferable.
- Location of facility to be convenient to majority of householders.
- Particular regard to be had to traffic considerations.

#### 16.14.2 Biological Treatment Facilities

The siting of future Biological Treatment Facilities in the Region will need to have regards to the requirements set down in the:

- Draft EU Council Directive on the Biological Treatment of Biowaste
- Animal By-products Directive (1774/2002/EC)

The Draft Directive on the Biological Treatment of Biowaste – Annex V sets out the following criteria that should be considered when selecting a suitable site:

- Location, taking into account requirements relating to the feedstock waste and technology used.

- Distance to such things as residential and recreational areas
- The proximity of waterways, waterbodies and other agricultural and urban sites
- The existence of protection zones in the area and the protection of the local environment

The Animal By-products Directive has come into force and includes criteria for siting of composting and biogas (Anaerobic Digestion) plants that treat animal by-products. Food waste from municipal sources is designated as animal by-products:

- Composting/biogas plants cannot be located within the confines of a premises/ farm where farmed animals are kept. There must be total physical separation between the plant and any surrounding farmlands, with a separate entrance and exit to the facility.
- The biogas/compost facility must be located at a minimum distance of 50 metres on all sides from the nearest premises or location where farmed animals are kept. This distance may be reduced where appropriate alternative barriers exist.
- In the case of an existing site where a border of 50 metres is not possible, equivalent measures against farmed animal contact must be in place. This could involve the provision of specific exclusion arrangements and/or special access/egress systems at the facility.
- In order to prevent the possibility of contact with farm animals either directly or indirectly (vermin, birds etc), all processing of raw material must be carried out under cover.

#### 16.14.3 Waste-To-Energy Facilities

In Ireland there are no National guidelines regarding the selection of areas suitable for the location of WTE facilities. Exclusionary factors, which may preclude the siting of a Thermal Treatment plant, should be considered. Typical factors include:

- Proposed Natural Heritage Areas or Special Areas of Conservation
- Airport Exclusionary Areas

- Areas of High Amenity or Archaeological Interest
- Appropriate zoning based on the County Development Plans

Having identified areas which are not suitable to locate a facility, a more detailed assessment can be carried out having regard to the following criteria:

- General Planning and Environmental Considerations
- Site Size and Current Land Use
- Proximity to Residential Areas
- End-Market Use
- Road Access
- Traffic

#### 16.14.4 Landfills

The siting of a Landfill Facility in the Region will be carried out in accordance with the Draft EPA Manual on Landfill Site Selection (1995) and best practice.

The Draft Manual outlines a staged process encompassing a desk study, mapping exclusionary factors, selecting siting criteria, and shortlisting generally suitable areas using siting criteria. Shortlisted sites are assessed in detail before a final selection is made. Consultation with the public is an important aspect of the process and should be planned accordingly.

### 16.15 INTEGRATED WASTE INFRASTRUCTURE

The long-term policy within the Region is to achieve sustainable management of waste arising in the Region by developing an integrated system of waste treatment solutions. The Region has made good progress in developing facilities since the previous Plan, which was over reliant on landfill, and the objective over this Plan period will be to continue to develop key infrastructure in keeping with the needs of the Region.

**Map 9** shows the locations of the existing Waste Licensed infrastructure in the Midlands Region and in neighbouring regions. It also identifies proposed waste management infrastructure both in and outside the Midlands Region.



**Policy:**

**The Local Authorities shall seek to ensure that adequate integrated waste infrastructure to meet Plan targets is put in place. The Local Authorities shall work with the private sector to ensure that where collection in particular counties is handled by the private sector that the private waste collection will provide or assist in providing balanced infrastructure such as Civic Amenity Facilities or waste recycling centres funded from waste producer charges collected by the private sector.**

**Objective/Target:**

- Some future proofing of the capacity of facilities beyond the tonnage set out in the Plan, in terms of reuse, recycling and recovery facilities, including C&D waste facilities is acceptable under the Plan subject to them being environmentally sound and economically sustainable.

**16.16 CONTINGENCY**

In relation to contingencies in the event of delays or failure to implement the Waste Plan, the following will result:

- Failure to achieve recovery/recycling targets will lead to more pressure on Waste to Energy and/or disposal facilities
- Failure or difficulties in achieving Waste to Energy capacity will increase pressure on landfill disposal, requiring short term extensions
- Delay in providing extensions to existing landfill capacity will increase pressure on use of existing sites, in the Region or other regions in the short term

In the event that preferred locations for waste facilities that have been identified for a particular purpose are subsequently determined to be unsuitable, the Local Authorities may select another preferred site, with reference to any relevant siting studies.



## 17 SPECIFIC POLICIES AND OBJECTIVES FOR PRIORITY WASTE

### 17.1 CONSTRUCTION AND DEMOLITION (C&D) WASTE

National Policy ('*Changing Our Ways*') on C&D Waste has set an overall target of 85% recycling by 2013. Over the next five years of this Plan the Midlands Region needs to progress towards this overall objective through the implementation of the waste hierarchy and the producer responsibility principle.

The Region needs to ensure that the re-use and recycling of C&D waste is maximised and that illegal collection and disposal of this material is ceased. Furthermore the Local Authorities in the Region should support and promote the endeavours of the National Construction and Demolition Waste Council (NCDWC) and its producer responsibility initiative to reduce the generation of unnecessary C&D waste.

Draft Best Practice Guidelines on the preparation of Waste Management Plans for C&D Projects have been produced by the DEHLG (2004). These provide guidance on the preparation of C&D Waste Management Plans and provide Local Authorities, engineers and developers with an agreed basis for the content of C&D Waste Management Plans.

Coinciding with these draft guidelines, the National Construction and Demolition Waste Council (NCDWC) launched their Voluntary Construction Industry Initiative in October 2004. This initiative places responsibility on each participant in the construction industry to encourage best practice in waste management by promoting waste prevention, reduction and reuse of materials and recycling (National Construction and Demolition Waste Council, 2004).

The NCDWC Voluntary Initiative requires the preparation of C&D Waste Management Plans for construction projects of a particular scale. Draft thresholds for the application of a Waste Management Plan proposed are as follows:

- New residential development of 10 houses or more.
- New developments, other than above, with an aggregate floor-area in excess of 1,250m<sup>2</sup>.
- Demolition projects generating in excess of 500 tonnes of C&D waste.
- Civil Engineering projects producing in excess of 500m<sup>3</sup> of waste (equivalent to 1,000 tonnes), excluding waste materials used for development works on the site.

The planning system therefore should support the design and construction of buildings to incorporate recovery and recycling.

Most C&D waste (mainly soil and stones) is currently being disposed off by being applied to agricultural land under Waste Permit, the activity being classified as 'waste recovery'. Nominally the soil is being used to improve agricultural land, but this may not be the main objective in many cases. Planning permission is required for this activity. While the current practice is a relatively low-cost option for the building industry, there are some concerns over current practice:

- Regulating a large number of small sites is more challenging and costly for the Local Authority, and the risk of illegal disposal at these sites is potentially higher.
- There is a risk that 'marginal land' high in biodiversity and ecological value (but low in economic value) will be damaged in a piecemeal fashion (wetlands, marshy land, hedgerows, natural grasslands).
- The opportunity to re-instate existing quarries, landfills and other 'brownfield' sites with soil is being lost.

Existing quarries and pits whether worked out or in operation are potentially useful sites for the management of C&D waste - rubble, stones, and other recyclables could be

screened from the waste for re-use. The inert soil can be used to restore the topographical contours. It may be possible to use the same trucks to deliver aggregates/raw materials to building sites and remove soil, thereby reducing traffic impacts. With fewer of these sites, better regulation will be possible at a lower cost.

Local Authorities should therefore encourage the use of quarries/ pits for sustainable management of C&D waste as opposed to using agricultural land, with an emphasis on resource recovery.

Local Authorities should divert suitable C&D waste to relevant landfill sites where there is potential to use it for restoration and environmental protection.

Applications for waste permits for the disposal of soil/stone on agricultural land for the purpose of land recovery should be closely inspected, with a view to identifying potential environmental impacts, and Planning Permission should be sought as required. Where alternative regulated sites are available the use of virgin land for C&D waste should be discouraged.

#### Policy:

**Reduce the generation of C&D waste and ensure that reuse and recycling of this waste is maximised.**

#### Objectives:

##### Planning

- Ensure that, for new construction or demolition projects above the threshold limits as set by the NCDWC, a C&D Waste Management Plan is prepared by the developer and that the maximum amount of waste material generated on-site is prevented, re-used and recycled.
- Local Authorities will require Developers/Contractors to report on waste movements in to and out of the site as outlined in the C&D Waste Management Plan in line with relevant planning legislation and the objectives of the NCDWC Voluntary Initiative.
- Promote the development of centralised facilities to cater for the

acceptance of soil/stone in disused quarries/pits in the Region.

- Promote and encourage the development of C&D waste recycling facilities by the private sector to meet the needs of the Region.

#### Recycled Materials and Markets

- Promote the re-use of recycled aggregates in all construction projects in the Midlands Region.
- Ensure that new Local Authority construction jobs are assessed for the potential use of recycled aggregates.
- Encourage the development of end-markets for this product by ensuring that public and private sector developments use recycled construction aggregates and other materials where possible.

#### Waste Facilities

- Increase regulation and controls at Waste Permit facilities which are used for land recovery activities.
- Ensure that contaminated loads are not accepted at facilities and improvements are made in the recording of materials accepted at facilities.
- Existing and proposed Civic Amenity Facilities will, where possible, accept a wider variety of materials specifically WEEE, green waste, household hazardous waste and household C&D waste.
- Existing quarries and pits to be considered as suitable for the management and recovery of C&D waste.

#### Awareness

- Promote awareness and education to developers of recycled construction products through the planning and waste permit systems.
- Support and promote the on-going producer responsibility initiatives of the construction industry.

#### Required Implementation (2005-2010)

Local Authorities need to ensure that planning staff are aware of the voluntary industry initiative, which requires developers to submit a C&D Plan if the project is above certain thresholds. In addition to assessing the C&D Waste Plans submitted at planning stage, monitoring and inspecting construction sites will be required to ensure the developer is putting the Plan into action on the ground.

The Local Authorities need to ensure that staff are adequately trained to regulate and enforce waste collectors and waste permit holders in the construction industry.

Good communication needs to be maintained between the Local Authorities in the Region and the construction industry representative bodies i.e. Construction Industry Federation (CIF) and National Construction and Demolition Waste Council (NCDWC) to ensure that the maximum benefit from the voluntary industry initiative is achieved.

The development of C&D waste recycling infrastructure is required for the Region to manage the C&D waste produced in the Region. This can be implemented through either a large-scale centralised facility or several smaller scale facilities located throughout the Region.

#### **Targets for 2010**

- Engage with the private sector to ensure the provision of additional C&D Waste Recovery Facilities in the Region for recycling and processing of C&D Waste by 2008.

## **17.2 HAZARDOUS WASTE**

The EPA is responsible for the National Hazardous Waste Management Plan, which sets out a National strategy for the prevention, collection, recovery and disposal of hazardous waste materials. The Local Authorities in the Midlands Region have a number of responsibilities to small-scale producers of hazardous waste.

#### **Policy:**

**The Midlands Region needs to ensure that hazardous waste is addressed through an integrated approach of prevention, collection and recycling and the development of industry-led producer responsibility for key waste streams.**

#### **Objectives:**

##### **Awareness/Prevention**

- Promote through educational programmes the ways in which the

generation of hazardous waste can be prevented and reduced.

- Improve awareness amongst householders and Small-to-Medium Enterprises (SMEs) of hazardous waste materials and the need for these materials to be separately managed.

#### **Collection**

- Provide adequate coverage for the collection of hazardous waste through Civic Amenity Facilities and mobile collection services.
- Address the lack of waste collection services available for SMEs and provide leadership and guidance to industry on the collection and management of such wastes.

#### **Recycling**

- Increase the level of recycling and recovery of hazardous waste at both the household level and amongst SMEs through educational programmes and the provision of adequate facilities and services.
- Maximise re-use and recycling of hazardous waste products for householders and businesses through the development of industry led producer responsibility schemes.

#### **Facilities**

- Expand the range of hazardous waste materials accepted at Civic Amenity Facilities.
- Develop fixed storage facilities at Civic Amenity Facilities to increase waste prevention and improve health and safety at each facility.
- Improve the level of reporting and data collection of hazardous waste from waste collectors and facilities.

#### **Required Implementation (2005-2010)**

Local Authorities will be required to train staff adequately to ensure that awareness and education of hazardous materials and the location of facilities and services are improved.

The appointment of Green Business officers in the Region is needed as part of the overall waste prevention programme for the Region. These officers would be responsible for providing guidance to SMEs in relation to the prevention, separation and recovery of hazardous waste materials.



In order to effectively use Civic Amenity Facilities as a collection channel, capital investment in storage facilities, training and equipping of staff is necessary. Fixed storage facilities at the sites need to be provided/operated in association with the existing hazardous waste contractors and in conformity with environmental and health and safety legislation.

A further consideration is the potential role for *producer responsibility* to be used to improve hazardous waste management for particular hazardous waste fractions i.e. paint, batteries and medicines. In this area, the onus is not necessarily on the Local Authority to take the initiative. International experience has shown that voluntary initiatives and co-operative schemes can be very successful. Funding could be sought for all activities from the National Waste Prevention Programme.

#### Targets to 2010:

- Each Local Authority will run one public educational campaign per year based around prevention, reduction, recycling and source separation of household and SME hazardous waste.
- Each Local Authority will aim to collect 0.9kg of household hazardous waste per person by end 2009.
- Ensure that all existing and proposed Civic Amenity Facilities will accept a wide range of household hazardous wastes and have developed adequate capacity facilities at each site by 2010.

### 17.3 WASTE ELECTRICAL & ELECTRONIC EQUIPMENT (WEEE)

The EU Directive on WEEE imposes new regulations on Ireland to deal with the management of this waste stream. In accordance with the Directive and DEHLG guidance, the Midlands Region must adopt appropriate measures in order to minimise the disposal of WEEE as unsorted municipal waste and to achieve a high level of separate collection of WEEE. The collection and transport of separately collected WEEE shall be carried out in a way that optimises reuse and recycling of those components or whole appliances capable of being reused or recycled. These measures will be met through the development of a national producer responsibility scheme involving industry and the Local Authorities.



WEEE Collection at Civic Amenity Facilities

#### Policy:

**The Local Authorities shall maximise the collection, reuse and recycling opportunities for all WEEE in the Region over the Plan period.**

#### Objectives:

- Producers (manufacturers and importers) must provide at least for the financing of the collection, treatment, recovery and environmentally sound disposal of WEEE from private households deposited at collection facilities.
- The development of an industry responsibility scheme must provide the required access and availability to facilities/services for householders.

#### Local Authority Role

- Raise awareness of WEEE amongst householders and the implications of the EU WEEE Directive.
- Provide facilities in Civic Amenity Facilities to accommodate WEEE collection.
- Explore alternative WEEE collection methods with industry to ensure maximum coverage is provided for householders in the Region.
- Enforce regulation of waste collection activities, treatment and recycling facilities of WEEE by the private sector.

#### Required Implementation (2005-2010)

Local Authorities will be required to train staff adequately to ensure that awareness and education of WEEE materials and the location of facilities and services are improved. Staff will also need to be trained to

carry out inspections of facilities and develop data collections systems.

Capital investment through private sector funding is required to expand the number of Civic Amenity Facilities across the Region to ensure maximum recycling coverage.

Good communication is required between industry and the Local Authorities to ensure that the approved industry initiative is operated effectively and that adequate collection coverage through appropriate schemes is provided in the Region.

#### **Targets to 2010:**

- Each Local Authority will comply with the requirements of the National WEEE producer responsibility scheme and the associated targets from August 2005 onwards.
- Ensure that appropriate Civic Amenity Facilities will accept all categories of WEEE from August 2005 onwards.
- The Local Authorities will run one public educational campaign per year based around prevention, reduction, recycling and source separation of WEEE.

## **17.4 END OF LIFE VEHICLES (ELVS)**

The main policy driver on end-of-life vehicles is the EU Council Directive on ELVs (2000/53/EC), which has been transposed into Irish Legislation. The Directive introduces producer responsibility into the motor vehicle sector and places the onus for waste collection and recovery of ELVs on the industry.

A National producer responsibility initiative is due to be established by 2007, which will affect all Waste Regions and pass the responsibility for collection on to the industry. In the Midlands Region, it is anticipated that ELV facilities will increase to meet the demand as responsibility shifts from the Local Authority to industry. ELVs 'drop-off' or collections points will need to be established for consumers.

#### **Policy:**

**Ensure that ELVs are dismantled and recovered in a manner which do not cause environmental pollution and ensuring that the recycling and recovery rates of ELVs and their components are met.**

#### **Objectives:**

##### **Producer Responsibility**

- Ensure by 2007 that the relevant motor industry operators establish collection systems for all ELVs at no cost to the owner.
- Ensure that all collected ELVs are dismantled and recovered in a manner which prevents waste generation and does not cause environmental pollution
- Increase the recovery and recycling rates of ELVs and their components and meet the targets specified by the Directive.
- Minimise the use of hazardous materials/substances in the manufacturing of vehicles.
- Increase the usage of recycled materials in the manufacture of vehicles.

##### **Local Authority**

- Promote the safe disposal of all ELVs
- Ensure that abandoned and burnt-out cars collected by or on behalf of the Local Authorities are brought to waste permitted facilities for recovery and disposal
- Enforce and regulate waste collection permit activities and waste permit holders in the Region and ensure that accurate records and reporting are maintained.

##### **Public**

- All ELVs should be disposed of in an environmentally sound manner at fully permitted facilities or suitably approved collection points.

#### **Required Implementation (2005-2010)**

In order to achieve the targets and objectives of the EU Directive on ELVs the Government will need to establish a workable compliance scheme for all parties within the motor industry. The motor industry will need to take



the lead responsibility in each Region and work in conjunction with the Local Authorities in setting up a network of collection points or approved facilities. Good communication between the industry the Local Authorities and the general public will be essential to prevent unwanted waste generation

The development of a comprehensive system of collection points for the disposal of ELVs is required as part of the implementation of an industry-led scheme.

The Local Authorities will need to ensure that relevant staff are aware of the implications of the new Directive and the proposed industry compliance scheme. Staff will need to be informed of all proposed changes in the system and advise the general public accordingly.

The Local Authorities will need to ensure that environmental staff are adequately trained to regulate and enforce waste collectors and waste permit holders operating in the industry. In addition monitoring and inspection of permitted facilities and collection points will be required to ensure that operators are in compliance with Local Authority issued permits.

#### **Targets to 2010:**

- The Local Authorities shall run regular public education campaigns focusing on the public's obligation, to coincide with implementation of the Directive, to dispose of their vehicle appropriately.
- The enforcement team in each Local Authority shall perform audits, at least every second year, of the waste collection permits and waste permit holders of ELVs to ensure accurate records are kept.
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## **17.5 TYRES**

There is no clear policy direction in Ireland at the present time on waste tyres. The implementation of the EU Landfill Directive has prohibited the disposal of waste tyres to landfill since 2003. Currently the disposal of shredded tyres is accepted at landfill facilities but only until 2006.

Over the next five years of this Plan the Midlands Region needs to minimise the illegal disposal of waste tyres by ensuring

that they are collected and recycled through the recognised channels.

### **Upcoming Policy Developments**

The Irish Tyre Federation, which consists of importers and tyre retailers, is in discussions with the DEHLG about a self-policing system in the industry. This will comprise an audit system whereby the tyres would be tracked from the time they came into the country until they were recycled/disposed of. The scheme is still in the discussion stage so is unlikely to become a reality until the second half of 2006, at the earliest.

#### **Policy:**

**Minimise the illegal disposal of waste tyres and increase the quantity of tyre recycling.**

#### **Objectives:**

Local Authorities will work to ensure that waste tyres are handled and recycled through the right channels in appropriate manner.

#### **Target to 2010:**

- Implement the agreed National industry producer responsibility initiative, which is due to be completed shortly

## **17.6 SLUDGE**

Each Local Authority is required to prepare a Sludge Management Plan/ Strategy for the collection, treatment and re-use where possible or disposal of all non-hazardous sludge arising within their functional area. The completed Sludge Management Plans/Strategies are subsets of the Regional Waste Management Plan.

Sludge Management Plans have been prepared and approved by the Department for North Tipperary, (August 2003), Co. Westmeath (June, 2002), Co. Offaly (2002) Co. Longford (August, 2001) and Co. Laois (August, 2001).

Each Sludge Plan quantifies the current volumes of non-hazardous sludge and sets out a framework policy for the sustainable management of all non-hazardous sludge arising within the functional area. Once

Plans are approved by the Department of Environment, Heritage & Local Government each Local Authority is required to implement the policy framework.

**Policy:**

**Implement the policy as stated in each Sludge Management Plan.**

**Objectives:**

A summary of the key policy objectives from the Sludge Management Plans/Strategies in each County is as follows:

- The development of a main hub centre for the treatment of municipal wastewater sludge within their framework policy.
- The designation of satellite centres which would export sludge to the hub centre.
- To promote the use of biosolids arising from municipal wastewater treatment plants as fertiliser.

**Required Implementation (2005-2009)**

The key policy objectives and implementation programmes as set down in the Sludge Management Plans should be managed and programmed by the Local Authorities.

**Targets to 2010:**

- Targets to be achieved are set out in the Sludge Management Plans.

## **18 STRATEGIC ENVIRONMENTAL ASSESSMENT**

### **18.1 INTRODUCTION**

A Strategic Environmental Assessment (SEA) has been prepared in tandem with the Waste Management Plan on a non-statutory pilot basis. The objective of the SEA is to identify the key environment issues that are likely to arise through the implementation of the Plan, and to propose mitigation measures where negative impacts are identified.

### **18.2 BACKGROUND TO SEA**

An SEA can be described as a process for evaluating, at the earliest appropriate stage, the environmental quality, and consequences, of policies, plans or programmes. The purpose is to ensure that the environmental consequences of plans or programmes are assessed during their preparation and before they are adopted. It also gives the public and other interested parties an opportunity to comment and to be kept informed on how decisions are made.

The European Directive on SEA (2001/42/EC) was adopted into Irish Legislation on the 21<sup>st</sup> of July 2004. Certain plans and programmes prepared by statutory bodies and which are likely to have a significant impact on the environment will require an SEA to be carried out where the preparation of such plans and programmes is started after that date.

The SEA process comprises the following outputs:

- An Environmental Report (a report containing the findings of the SEA) on the likely effects of the Waste Management Plan.
- Consultation on the Waste Management Plan and associated Environmental Report.
- An SEA Statement (identifying how environmental considerations and consultation have been integrated into the Waste Management Plan).

### **18.3 SEA METHODOLOGY**

The preparation of an SEA follows a prescribed process, in accordance with the SEA legislation and guidelines issued by the Environmental Protection Agency (EPA). The stages of the process include:

- Scoping and Consultation
- Assessment
- Mitigation Measures
- Proposals for Monitoring

### **18.4 SCOPING AND CONSULTATION**

The objective of scoping is to identify key issues of concern that should be addressed in the environmental assessment of the Waste Management Plan so that they can be considered in appropriate detail in the SEA. This stage also determines the key elements of the Waste Management Plan and identifies the environmental receptors to be affected.

Under Irish legislation, (SEA Regulations SI No. 435 of 2004), designated environmental authorities must be consulted in relation to the scope and level of detail to be included in the Environmental Report. The following authorities are identified as statutory consultees in relation to an SEA for Waste Management Plans;

- The Environmental Protection Agency (EPA);
- The Department of the Environment, Heritage and Local Government (DEHLG)
- The Department of Communications, Marine and Natural Resources (DCMNR).

A Workshop was held in November 2004 to determine the key elements of the Midlands Waste Management Plan, SEA Methodology, Objectives, Indicators and Targets, and the level of environmental information to be included in the SEA. The workshop included members of the SEA study team, the Waste Plan Review team, representatives from each of the statutory consultees and each of the Region's Local Authorities.

Following the workshop a Draft Scoping Report was circulated to participants for comment on the scope and level of detail of the SEA. Comments received were incorporated into the Scoping Report and Environmental Report.

## **18.5 ESTABLISHING THE BASELINE ENVIRONMENT**

Baseline data has been compiled for each environmental receptor to be considered in the SEA Environmental Report. The type of data collected was based on availability, suitability and at a relevant level of detail for the Midlands Region. The main sources of data were existing datasets from Government Agencies.

The aim of the baseline data is to establish an environmental baseline, and highlight key environmental issues. It also highlights what data is available for proposed future monitoring.

The methodology for assessing the likely environmental impacts of the Plan is based on 11 environmental receptors (biodiversity, water, air/climate, soils/landuse, landscape, cultural heritage, material assets, population, human health, energy and transport). These receptors reflect the objectives offset by relevant EU and National environmental policy. A set of targets and indicators can be identified for each receptor, against which the performance of the Plan can be measured on an ongoing basis if no other more appropriate indicators are identified in the Plan.

## **18.6 ASSESSMENT OF WASTE POLICIES**

In principle there are four aspects to be taken into account when assessing waste policy. These relate to:

### **1. Need or Demand**

Reducing the need for waste management facilities (particularly disposal) comes through a concentration of policy on the higher elements of the waste management hierarchy - waste prevention/minimisation, reuse and recycling of waste.

Although the target of achieving zero waste (i.e. zero waste for disposal) is a

legitimate long-term aspiration, it is impractical to assume that it can be achieved over the life of the current Plan. The Plan must therefore make provision for the development of a regional based, integrated waste management system.

### **2. Mode or Process**

The alternatives for the mix of waste management options and technologies were assessed through the Best Practicable Environmental Option (BPEO) in the original Waste Management Plan (1999). The existing Plan is based on achieving maximum landfill diversion through implementation of maximum recycling followed by thermal treatment of combustible waste. This remains the policy of the Region.

### **3. Location**

The major likely significant impacts from implementing the identified policies are expected to be experienced at the location of larger waste management facilities, such as landfill and thermal treatment facilities. It is not proposed in the current Plan to identify specific locations for waste management facilities and therefore the likely impact at specific locations cannot be assessed. The development of any such facility would require an Environmental Impact Statement to be carried out.

### **4. Timing and Implementation**

The Plan implementation cannot be accurately detailed, due to its dependence on external factors such as need for planning or procurement of funding for private sector projects. Thus, timing and implementation cannot reasonably be considered in the SEA.

#### **18.6.1 Best Practicable Environmental Option (BPEO)**

The BPEO for managing waste generated in the Midlands Region was examined during the development of the Waste Management Strategy for the Midlands prepared in 1998. The mix of policies and processes examined were determined on the basis of National and European waste management policy. These policies advocated a regionalised, integrated approach based on a hierarchy of waste management options and targets.

Three alternative scenarios were considered in Stage 1 of the modelling process. These included waste management with and without a thermal treatment option and a number of recycling targets.

- **Scenario 1 -** *Achieve maximum realistic recycling, continue with landfill disposal.*
- **Scenario 2 -** *Achieve national and EU targets for recycling and introduce energy recovery by thermal treatment of combustible wastes.*
- **Scenario 3 -** *Achieve maximum landfill diversion through implementation of maximum realistic recycling and thermal treatment of combustible wastes.*

The BPEO selected from these scenarios (Scenario 3) combines maximum recycling with thermal treatment, and was found to have the lowest environmental load on society when strategic facilities were all in place. This was based on the assumption of low resultant environmental impact from maximum recycling, and a reduction in emissions of global warming gases and photochemical ozone production by the use of thermal treatment.

European and National waste management policy, with its emphasis on prevention and minimisation and diversion of waste from landfill, have not changed significantly since the original BPEO was selected. The BPEO was modelled on a 15-year life span (1998-2013), and the recent DEHLG Policy Document *'Taking Stock and Moving Forward'* (April 2004) endorsed the approach of integrated waste management going forward. On this basis, the overall policy, as set out in the BPEO assessment, in the Plan will remain. However, the recent emphasis in National policy on Prevention/minimisation, reuse and recycling as exemplified by the "Race Against Waste" national campaign (Reduce, Reuse, Recycle) is acknowledged and relevant policies have been updated in the new Plan for the Midlands.

While the implementation of this BPEO is significantly behind schedule, particularly with regard to the commissioning of vital waste management facilities, such as thermal treatment, there has been no significant change in National policy that would invalidate the outcome of the selection process carried out in 1999.

### 18.6.2 "Do Nothing" or "Do Minimum" Scenarios

Two scenarios were considered in addition to the revision of the Waste Management Plan:

#### A. The Do Nothing Scenario:

This takes into consideration the policies of the Waste Management Plan not being implemented. Non-Implementation of the Plan would lead to detrimental impacts on biodiversity, water, air, human health & population. Due to the number and degree of negative impacts it is not considered a viable alternative.

#### B. The Do Minimum Scenario:

If the original Waste Management Plan was not being reviewed, this would mean the policies and targets set in the original Plan would continue to be used to manage waste in the Midlands for the next 5 years. Changes in Legislation and a slower implementation of the original policy for the Midlands would suggest that targets for diversion of waste from landfill and increasing recycling and thermal treatment would not be met, with a consequent negative impact to the environment.

## 18.7 ASSESSMENT OF ENVIRONMENTAL OPTIONS

Criteria for assessing the positive and negative impacts of policies identified in the Plan are reported in the SEA Environmental Report, which contains detailed matrices that set out the results of the assessment process.

The detailed assessment follows two stages. The first stage involves an assessment of individual waste policies against each environmental receptor. Having performed the assessment policy by policy, the cumulative impact of implementing the Plan on each receptor is determined during the second stage.

Site-specific policies have not been recommended, as, where this would be possible, it may prejudice any statutory planning processes. This has the effect of limiting the level of assessment that can be undertaken.

### **18.7.1 Assessment of Individual Policies**

The European Waste Management Hierarchy advocates a number of waste management options ranging from most favourable to least favourable option. As a basis for assessing individual waste policies these options are defined and examined in terms of the potential environmental benefits and disbenefits of each option.

Each policy is considered in terms of a number of “common” criteria in order to allow some qualitative comparison between options where relevant; journey generation, energy use and generation, emissions, materials recovery and footprint of facility.

duration. Realistic targets and indicators should be set to measure policy implementation and ultimately to establish whether targets are being met.

### **18.7.2 Cumulative Impacts**

The potential cumulative impacts of implementing the policies identified in the Waste Management Plan on each of the environmental receptors are also summarised in the SEA.

## **18.8 MITIGATION MEASURES**

Mitigation measures can be proposed to limit the negative impacts of implementing any policy or part of a policy. The primary mitigation measures that can be adopted are the assignment of uniform siting criteria in order to reduce potential detrimental environment impacts through the choice of location of strategic waste management facilities.

The SEA recommends siting criteria for all waste management facilities proposed in the Plan, based upon existing or proposed national standards/guidelines and EU Directives.

## **18.9 PROPOSALS FOR MONITORING**

The aim of using indicators or monitoring is to enable significant impacts of the Waste Management Plan on the environment to be measured. The indicators should be selected where possible, to tie in with existing monitoring networks being operated by the Local Authorities or other Governmental Agencies.

Implementation of policies in the Plan will be through a phased approach, with key objectives specified for each year of the Plan