

14 WASTE POLICY – MUNICIPAL WASTE, CLOSED LANDFILLS AND HAZARDOUS WASTE DISPOSAL SITES

14.1 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 effect on residual waste treatment in the Region.

Similarly the Draft National Biodegradable Waste Strategy (2004) has set requirements for disposal of biodegradable municipal waste at landfills. It is anticipated that this Draft Strategy will be finalised in 2006. The effect of the Directive and the Draft Strategy will be to continue to divert waste away from landfill and up the waste hierarchy ladder towards prevention and reuse/recycling.

Table 14.1 shows the statutory requirements of the EU Landfill Directive (1999) and the Draft National Biodegradable Waste Strategy respectively for the specified target years of 2009 and 2016.

Table 14.1: Biodegradable Municipal Waste – Mandatory Requirements

EU Landfill Directive 1999
By 2009 only 50% of the total BMW generated in the Region in 1995 can be landfilled.
By 2009 approximately 69,000 tonnes of BMW can be landfilled in the Connacht Region.
By 2016 only 35% of the total BMW generated in the Region in can be landfilled.
By 2016 approximately 48,000 tonnes of BMW can be landfilled in the Connacht Region.
Draft National Biodegradable Waste Strategy 2004
By 2009 only 24% of the total annual BMW produced in the Region can be landfilled.
By 2009 approximately 63,000 tonnes of BMW can be landfilled in the Connacht Region.
By 2016 only 13% of the total annual BMW produced in the Region can be landfilled.
By 2016 approximately 40,000 tonnes of BMW can be landfilled in the Connacht 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 the provision of integrated infrastructure in the Region including:

- Sustained promotion of waste prevention and minimisation,
- Expansion of the dry recyclables collection,
- Introducing segregated collection of organic waste in the Region,
- Developing Biological and Thermal Treatment capacity options for the Region, and
- Developing alternative pre-treatments in the Region such as Mechanical Biological Treatment (MBT).

MBT is a treatment process which stabilises and reduces the volume of residual waste to be landfilled or sent to thermal treatment. MBT is a generic term that covers a wide variety of processes. Mechanical separation of mixed waste using shredders, screens, magnets and other devices followed by a biological stage where biodegradable material is broken down or stabilised. Some recyclable materials are recovered, but the majority of the residue is usually sent to energy recovery or landfill.

In 2005 there were four landfills in the region (Ballaghaderreen, Derrinnumera, Rathroeen and Pollboy) accepting municipal waste. Pollboy Landfill closed on 31st December 2005 and the new East Galway Landfill commenced operation in January 2006. The licenced capacity available in these four landfills will meet the region's requirements for landfilling until 2009, assuming that the region continues to make satisfactory progress towards the 2013 recycling target of 48%.

From 2009, additional landfill capacity will be required, particularly in the North Connacht area where the existing facilities will be filled by 2012, assuming again satisfactory progress towards the 48% recycling target, and the absence of other forms of treatment (i.e. thermal treatment). The new East Galway Landfill has a licenced capacity of 100,000 tonnes/annum for 10 years and in the longer term additional capacity will be required in South Connacht.

Hence, a new landfill in North Connacht will be required by 2009 and additional landfill capacity in South Connacht will be required in the longer term. The landfill requirements above are based on achievement of 48% recycling by 2013 and the availability of thermal treatment in 2013 to treat 33% of the municipal waste arising from 2013. If these two targets are not achieved then additional landfill capacity will be required in the region prior to 2013.

14.2 POLICY STATEMENT

In line with National Policy the Replacement Connacht 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.

The Connacht Local Authorities shall direct waste to licensed facilities with preference to facilities which are higher up the EU Waste Hierarchy using the waste collection permit system.

The original targets of the Connacht Waste Management Plan 2001 are deemed valid future targets for the Region. The recycling target for municipal waste of 48% is a regional target and the timescale for achieving this target is 2013. The recycling rate for the region for municipal waste in 2004 was 29%. Therefore the Plan target of 48% will remain as a Plan objective towards 2013.

The proposed policy prioritizes prevention as a key focus area for the duration of this revised Plan. The remaining 2013 targets for municipal waste for each treatment option are detailed below:



These policy proposals meet the requirements of current and proposed legislation and supports an integrated waste management system in accordance with *“Best Practicable Environmental Option”*.

Policy 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,
- Equity of access to waste management services and facilities will be promoted 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, and
- Local authorities will work in partnership with the private sector to deliver waste infrastructure required in the Region, and
- The Regional Steering and Executive Groups will address the issue of achieving targets through sharing information and collective responsibility.

14.3 WASTE PREVENTION, MINIMISATION AND REUSE

Waste prevention and minimisation will be an essential part of waste management policy in the Connacht Region.

At national level, it is expected that the National Waste Prevention Programme and other initiatives will generate legislation, funding, information and guidance on many issues in support of the implementation of regional waste prevention programmes.

Waste Prevention and Minimisation & Reuse

Policy:

Local Authorities commit to prioritising waste prevention and minimisation.

Objectives:

- *Appoint Green Business Officers in the Region and introduce sectoral networks for small businesses in the region,*
- *Continue the role of the Environmental Awareness Officers to create awareness and educate at community and household level,*
- *Encourage community/voluntary groups to establish waste services or facilities (e.g. facilities for recycling, reuse/repair) and*
- *Implement the National Waste Prevention Programme at local authority level.*

14.4 HOUSEHOLD WASTE COLLECTION AND RECYCLING

Uncollected Waste:

It will be an objective of the local authorities in the Region to address uncollected household waste. Household waste collection in the Connacht Region is predominately operated by the private sector (with the exception of Galway City Council and Mayo County Council). It is currently uneconomical in some rural areas to provide a waste collection service and hence the issue of uncollected waste needs to be addressed. Uncollected waste should be collected so that recycling targets are reached and the risks associated with environmental pollution and public health are reduced i.e. backyard burning and illegal dumping.

Uncollected Waste
<p>Policy: Increase the amount of household waste that is collected</p> <p><i>Objectives:</i></p> <ul style="list-style-type: none"> • <i>All local authorities should account for all waste arisings in their functional area,</i> • <i>Introduce Household Waste Bye-Laws particularly in urban areas,</i> • <i>Create community type waste schemes in rural areas. Encourage community/voluntary groups to establish additional waste services or facilities in their area and assist them to develop a strategy to provide such facilities for and with the members of their community,</i> • <i>Develop public awareness programmes,</i> • <i>Enforcement measures will be continued where illegal dumping or burning of waste is occurring,</i> • <i>The opening hours of Recycling Centres will be extended to cover weekends/outside normal work hours where local authority conditions allow and</i> • <i>Ensure greater respect for bring centres through a range of measures including education, maintenance and enforcement.</i>

Household Waste Collection and Recycling:

It will be an objective of the local authorities in the Region to ensure that an integrated collection and recycling system is provided to households in the Region.

Bring Banks

Significant progress has been made in the last five years on the development of a bring bank network in the Region (current bring bank number of 1:1,688 people) although with the population increasing additional bring banks will continue to be required. Whilst it will general policy to aim for an approximate bring bank density of 1:1,500 people, it is considered that the distribution of bring banks and the proximity and ease of access to banks are more important considerations than a simple per capita frequency particularly when comparing urban and rural areas. Another important factor to consider is the effectiveness of bring banks and the quantities collected. Underground recycling banks should be utilised where space is limited and bring banks should be provided at convenient locations.

Segregated Collection

Waste collection policy will be centred on the expansion of collection services to maximise coverage throughout the Region. In accordance with Government Policy set out in "Taking Stock and Moving Forward" (April 2004) local authorities will move towards the introduction of segregated collections. The existing two-bin system will be extended to include the segregated collection of biodegradable waste from householders. The planned three-bin system will consist of a mixed residual waste bin and different bins for the segregated 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.

The introduction of segregated collection in the Region has been a contributing factor to increased recycling levels. The proposed objective is to increase the number of households in the Region with segregated collections. In apartment complexes and built up areas where the provision of a third bin is not feasible shared composting schemes can be implemented. In some rural areas the 2-bin system with home composting will be suitable for a segregated collection system.

Recycling Centres

Currently there are nine recycling centres in the Region. A total of twenty one recycling centres were proposed in the 2001 Plan. The priority of this Plan will be to provide seventeen recycling centres by 2009 and twenty one recycling centres by 2013.

The policy for the Region with regard to recycling centres is as follows:

- It is recommended that these facilities be all consistently named “*Recycling Centres*”. While the term Civic Amenity Site has become familiar in some counties, it will be advantageous long term to stress the positive new service being provided at these new facilities where the emphasis is on *recycling*. Employing a standard term will make public communications easier,
- The opening hours need to be made user-friendly. The opening hours are limited at some recycling centres at weekends and from the public consultation meetings the public are finding it difficult to recycle due to the limited opening hours of recycling centres,
- A number of areas are poorly served by recycling centres at present. Further facilities are required and siting should take into consideration the population catchment to be served, accessibility for traffic, adequate space and security,
- The Recycling Centres should compliment rather than compete with the segregated collection system to ensure a level playing field for those involved in waste management,
- It is unsustainable for local authorities to provide recycling centres free of charge. Also the producer of waste should consider the environmental costs associated with recovery/treatment of waste and
- Data recording is essential at these facilities – number of users each day, waste deposited in each category etc. – in order to monitor performance and efficiency.

Household Waste Collection and Recycling
<p>Policy: Provide a combined integrated management system of segregated collection, bring banks and recycling centres to increase the household waste recycling rate.</p> <p><i>Objectives:</i></p> <ul style="list-style-type: none"> • <i>Extend household segregated collection service for organics and dry recyclables by 2009 through:</i> <ul style="list-style-type: none"> - <i>The introduction of a third bin to 90% of urban households and 25% of rural households for the collection of household organic material,</i> - <i>The expansion of dry recyclable collection up to 90% of urban households and 50% of rural households,</i> - <i>The expansion of home composting scheme to 10% of urban households and 30% of rural households,</i> • <i>Achieve a target of 17 no. recycling centres for the Region by 2009 and a target of 21 no. recycling centres by 2013, and</i>

- *Expand the network of bring banks based on population served, catchment served, site availability and security. Provide 48 no. additional bring banks throughout the Region by 2009.*

14.5 COMMERCIAL/INDUSTRIAL WASTE COLLECTION AND RECYCLING

The appointment of Green Business Officers will focus on the waste generated from the commercial/industrial sector and inform them of ways to implemented segregated collection schemes. Certain commercial businesses create significant amounts of organic waste: restaurants, hotels, canteens in large offices, industries and hospitals etc. There are also suitable organic residues from certain food processing industries. This sector has to be a key target for the Plan if targets for diversion of organic waste from landfill are to be met.

Commercial/Industrial Waste Collection and Recycling

Policy:

To increase commercial and industrial waste collection and recycling to the targets set out in this Plan.

Objectives:

- *Inform through Green Business Officers, Chambers of Commerce and IBEC,*
- *Increase the source segregation and collection of commercial/industrial dry recyclables and organic waste (incl. food waste),*
- *Continue to revise waste collection permits to include for segregated collection of dry recyclables and organic waste,*
- *Introduce bye-laws in urban areas to require source segregation of recyclables and*
- *In conjunction with the Private Sector the Local Authorities will:*
 - *Encourage the provision of additional facilities for commercial organic waste in the Region.*
 - *Promote Resource Recovery in the Region.*

14.6 MATERIALS RECOVERY AND TRANSFER FACILITIES

It is anticipated that existing Material Recovery and Transfer facilities will be expanded in the future. At present these facilities generally recover and process dry recyclables collected from segregated collections, bring banks and recycling centres for transfer to relevant recycling facilities overseas. Additional facilities will be required in the future to accommodate an expansion of segregated collection schemes or to transfer waste to biological or thermal treatment facilities.

Resource Recovery

In order to maximise the quantities of waste recovered and reduce the quantities requiring landfilling recovery of materials from the household, commercial and industrial waste streams will be essential to achieving the recycling and landfilling targets in this plan.

A network of facilities for the recovery of wastes must be available. While these facilities may be physically located together this network may also be provided via a number of facilities for the processing of specific waste streams at suitable locations in the region.

There a number of issues to be taken into account in the identification and further developments of resource recovery facilities including:

- Existing processing capacity,
- The location of existing facilities,
- The waste streams to be processed and the products produced,
- The economics of scale and environmental benefits,
- Land costs and siting issues,
- The benefits of additional capacity and synergies of potential co-location, and
- The impact and/or contribution to mandatory and voluntary producer responsibility schemes.

A feasibility study to examine the potential for the development of a dedicated resource recovery facility in the main population centre in the region, Galway City, is proposed in the Plan.

Materials Recovery and Transfer Facilities
<p>Policy:</p> <p>Provide an adequate network of facilities for recovery and transfer of wastes</p> <p><i>Objectives:</i></p> <ul style="list-style-type: none"> • <i>Encourage the private sector to provide facilities to sort and recover municipal wastes,</i> • <i>Expand existing facilities to include pre-treatment where required,</i> • <i>Support the development of additional transfer facilities where required and</i> • <i>Ensure MRF's are operated in compliance with Waste Licences/Permits.</i> • <i>Complete a feasibility study for Resource Recovery in Galway City.</i>

14.7 BIOLOGICAL TREATMENT

Biological treatment of Biodegradable Municipal Waste (BMW) can be successfully carried out in tandem with other waste streams, such as agricultural waste, organic industrial wastes, fisheries residues etc. Co-treatment can provide economies of scale and encourage investment in the development of modern recovery plants.

Biological Treatment
<p>Policy:</p> <p>To develop biological treatment capacity for organic waste sufficient to meet national and regional targets</p> <p><i>Objectives:</i></p> <ul style="list-style-type: none"> • <i>Assist the introduction of source separated collection of organic waste from households and commercial premises in line with the Draft National Biodegradable Waste Strategy and support the development of biological treatment facilities in the Region to treat source-separated organic waste,</i> • <i>Collect household green waste as part of the organics collected by segregated collection systems in urban areas,</i> • <i>Expand home composting as the primary method for the management of green waste in rural</i>

areas,

- Provide for the collection of green waste at recycling centres for transfer to green waste composting facilities and
- Provide green waste composting facilities to process green waste collected at recycling centres, and
- Provide sufficient processing capacity for organic waste.

14.8 ENERGY RECOVERY

Energy Recovery Policy will focus on the provision of infrastructure to recover energy value from residual waste after maximising recycling.

Energy Recovery

Policy:

Provide thermal treatment to service the Region as part of an integrated approach to waste management in line with EU and National Policy. (It is estimated that a thermal treatment plant with a capacity of c. 175,000 tonnes per annum will be required to serve the Region by 2016).

Objectives:

- Provide information to stakeholders on waste to energy,
- Prepare an Business Outline Case Report,
- Complete a PPP Assessment Report,
- Invite Expressions of Interest and
- Obtain statutory consents and approvals.

14.9 PRE-TREATMENT

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.

Pre-Treatment

Policy:

Pre-treat mixed municipal and industrial waste prior to landfilling to comply with the EU Landfill Directive pending the development of thermal treatment.

Objective:

Provide sufficient capacity to enable the Landfill Directive and Draft National Biodegradable Waste Strategy targets to be met.

14.10 LANDFILL DISPOSAL

Landfill will have a decreasing role in waste management in the Region in the future as recycling rates increase and, in particular, biological and thermal treatment facilities are introduced. The long term objective is to reduce landfill disposal to 19% of waste arisings. However in the short to medium term until a full range of integrated waste management infrastructure is developed there will still be a need for significant landfill capacity. The private sector will provide landfill capacity of 100,000 tonnes per annum in South Connacht for the next 10 years from 2006. This will follow the closure of Pollboy Landfill at the end of 2005.

Landfill Disposal
<p>Policy:</p> <p>Provide sufficient residual landfill capacity for the Region.</p> <p><i>Objectives:</i></p> <ul style="list-style-type: none"> • <i>Continue to rationalise the number of landfills in the Region,</i> • <i>Advance the siting study and statutory process for the development of a regional North Connacht Landfill and</i> • <i>Determine the timescale within which the proposed South Connacht Landfill should proceed.</i>

14.11 INTER-REGIONAL MOVEMENT OF WASTE

The Government's latest policy document "Taking Stock and Moving Forward" (2004), recognises a trend whereby certain planning permissions in respect of waste infrastructure restrict facilities in dealing with waste only arising within the area to which the Waste Management Plan applies. This interpretation of the Waste Management Plans has restricted the development of the waste industry and the movement of waste across regional boundaries shall be made more flexible while still adhering to the proximity principle.

Inter- Regional Movement of Waste
<p>The Local Authorities will adopt the guidance and direction under section 60 of the Waste Management Acts 1996-2005 from the Minister of the Environment, Heritage and Local Government in relation to the movement of waste in the recently published Circular WIR: 04/05:</p> <p><i>The Minister confirmed "that one of the fundamental components of policy in regard to the regulation of the movement of waste is the application of the proximity principle. However relevant authorities, in preparing Waste Management Plans.....should recognise that the application of the proximity principle does not entail interpreting waste management boundaries in such a manner as to inhibit the development of waste infrastructure which will support the attainment of national waste management policy through the rational development and use of such infrastructure."</i></p> <p>The cross border movement of municipal waste for the purposes of recovery and disposal will be supported, subject to agreement of the respective local authorities.</p>

14.12 CLOSED LANDFILLS

The Connacht Local Authorities have prepared an inventory of known former waste disposal/recovery sites previously operated in the Region during the period 1977-1997 in accordance with Section 22(7) (h) of the Waste Management Acts 1996-2005.

Since the making of the original Plan a number of former waste disposal sites in the Region have been remediated. 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 3rd May 2005 under Section 60 of the Waste Management Acts 1996-2005 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.

Closed Landfills
<p>Policy:</p> <p>To have regard to Section 22(7) (h) of the Waste Management Acts 1996-2005, the Section 60 policy direction as issued by the Minister on 3rd May 2005 and the Code of Practice when published by the EPA regarding the investigation of former waste disposal/recovery sites in the Region.</p> <p><i>Objectives:</i></p> <ul style="list-style-type: none"> • <i>To identify all closed landfills,</i> • <i>To assess the risks and</i> • <i>To prioritise and remediate on a phased basis, identifying costs and availability of resources.</i>

14.13 FORMER HAZARDOUS WASTE 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 in the NHWMP for compiling a Section 26 Register and ranking sites (refer to Figure 14.2). 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 and
- 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 Connacht Region is that to date no Section 26 Registers have been completed, although remediation work in relation to some former waste disposal sites and hazardous waste disposal sites has commenced. The Western and Shannon RBD projects will also provide information required for the remediation of old sites.

Former Hazardous Waste 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.

Objectives:

- *To identify all closed sites,*
- *To assess the risks and*
- *To prioritise and remediate on a phased basis, identifying costs and availability of resources.*

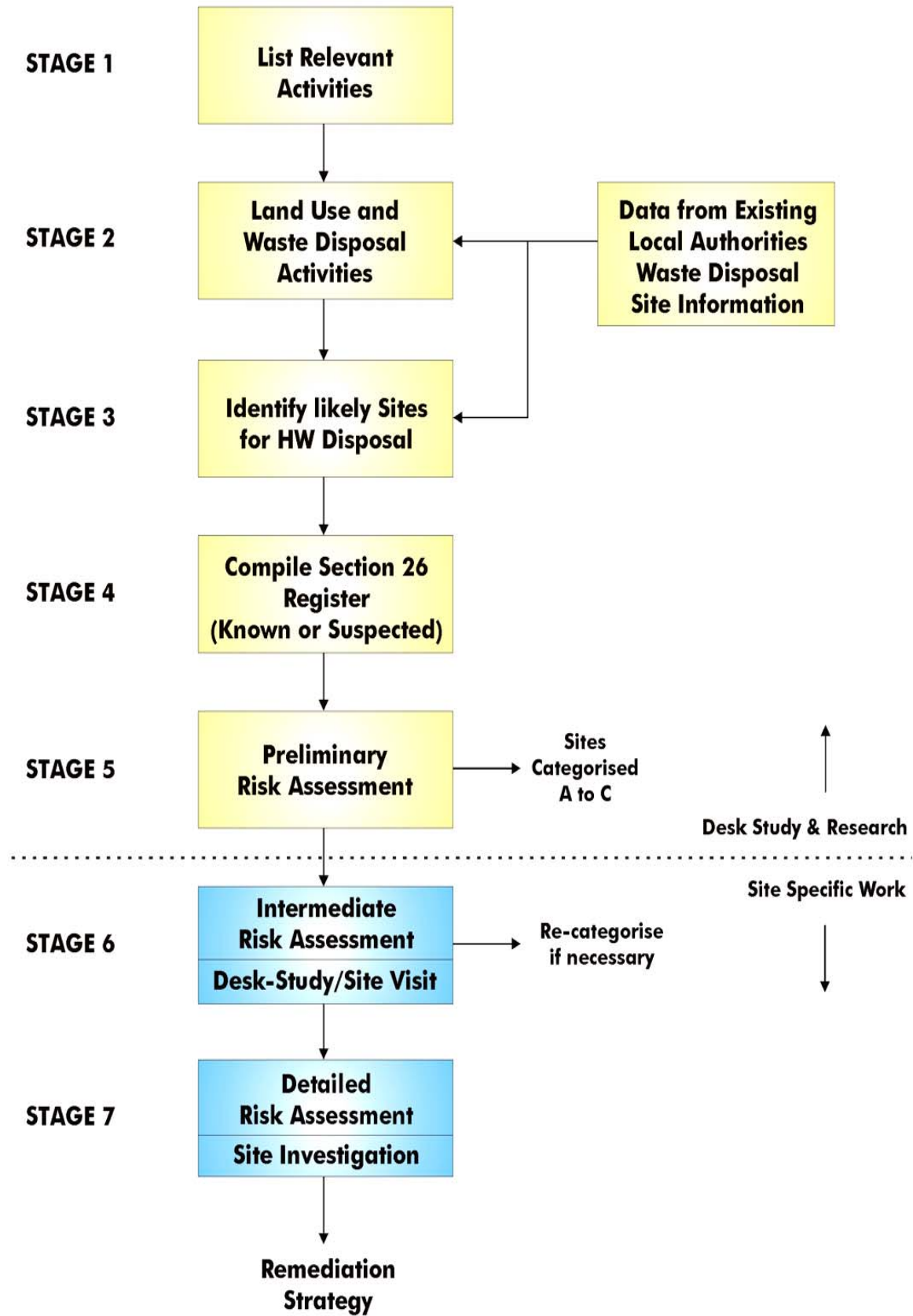


Figure 14.2: Development of Section 26 Register

15 WASTE POLICY – PRIORITY WASTES AND OTHER POLICIES

15.1 CONSTRUCTION AND DEMOLITION WASTE

National policy ('Changing Our Ways') on construction and demolition waste has set an overall target of 85% recycling by 2013. Over the next five years of this Plan the Connacht 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 construction and demolition waste is maximised and that illegal collection and disposal of this waste is completely ceased. Furthermore the local authorities in the Region should support and promote the endeavours of the National Construction and Demolition 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 Construction and Demolition Projects have been produced by DEHLG. These provide guidance on the preparation of construction and demolition 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 and waste management plans will be required for all projects with a floor area in excess of 500m², all civil engineering projects in excess of 25,000m³ excavated materials and for all demolition work in excess of 100m³ (National Construction and Demolition Waste Council, 2004).

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

Soil and stones the largest proportions that make up C&D waste is currently deposited on 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. While the current practice is a relative 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) and
- The opportunity to re-instate existing quarries, landfills and other 'brownfield' sites 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.

Local authorities in the region are in general working both together and with the private sector to develop C&D waste recycling facilities.

Applications for waste permits for deposit of soil on agricultural land should be closely inspected, with a view to potential environmental impacts. Where alternative regulated sites are available the use of virgin land for C&D waste should be discouraged.

The DEHLG has published "Quarries & Ancillary Activities – Guidelines for Planning Authorities" in April 2004. In this publication it is stated that as part of best practice

- the availability of a choice of raw aggregates and C&D waste-derived aggregates for the purposes of new construction would serve to limit the depletion of natural resources.
- Quarries should consider using inert C&D waste arisings, which do not have the potential to displace natural aggregates, for reinstatement and restoration purposes on the quarry site.

Construction & Demolition Waste Policy
<p>Policy:</p> <p>To maximise the reuse and recycling of C&D waste</p> <p><i>Objectives:</i></p> <ul style="list-style-type: none"> • <i>Implement the C&D waste planning requirements of the NCDWC initiative, including assessment of C&D Waste Plans and the monitoring of site activities,</i> • <i>Regulate the collection and management of C&D waste to achieve the Plan objectives (employing Bye-Laws and Collection Permits as tools),</i> • <i>Review controls at permitted facilities used for recovery activities and ensure that unsuitable wastes are not accepted,</i> • <i>Improve the recording of wastes accepted at permitted facilities,</i> • <i>Recover and reuse materials where possible, in preference to disposal e.g. landfill restoration, amenity projects and quarry re-instatement,</i> • <i>Promote and encourage the development of C&D waste facilities at quarry sites (both active and closed),</i> • <i>Promote and encourage the development of facilities for C&D waste by the private sector,</i> • <i>Ensure that all construction projects are assessed by the planning authority for the potential use of recycled aggregates,</i> • <i>Reduce and/or eliminate quantities of C&D recyclable waste other than clays or subsoils used in land reclamation, and</i> • <i>Provide for the collection of small quantities of household C&D waste at Recycling Centres.</i>

15.2 HAZARDOUS WASTE FROM HOUSEHOLDS & SMALL BUSINESSES

The EPA has prepared the National Hazardous Waste Management Plan (NHWMP) which sets out National Strategy for the prevention, collection, recovery and disposal of hazardous waste materials. The local authorities in the Region have a number of responsibilities to small scale producers of hazardous waste one of which is to provide a collection system to 'small-scale' producers of hazardous waste, which would include householders, and small businesses.

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

Hazardous Waste- Households & Small Businesses
<p>Policy:</p> <p>To ensure that hazardous wastes are managed through an integrated approach to prevention, collection and recycling</p> <p><i>Objectives:</i></p> <ul style="list-style-type: none"> • <i>Improve awareness amongst householders and small businesses of hazardous waste materials and the need for these materials to be separately managed,</i> • <i>Provide adequate coverage for the collection of hazardous waste through recycling centres and mobile collection services. To aim for a target of 0.5 kg of household hazardous waste collected per person by 2007 and 0.9 kg by 2008.</i> • <i>Increase the level of recycling and recovery of hazardous waste at both the household level and amongst small businesses through educational programmes and the provision of adequate facilities and services and</i> • <i>Expand the range of hazardous waste materials accepted at recycling centres.</i>

15.3 WASTE ELECTRICAL & ELECTRONIC EQUIPMENT (WEEE)

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

Waste Electrical & Electronic Equipment
<p>Policy:</p> <p>To collect and manage WEEE and comply with the EU Directive on Waste Electrical and Electronic Equipment</p> <p><i>Objectives:</i></p> <p><i>Producers (manufacturers and importers), if operating as part of a collective responsibility company are required to:</i></p> <ul style="list-style-type: none"> - <i>Implement awareness, record keeping and reporting</i> - <i>Collect WEEE from local authority facilities on demand</i> - <i>Manage the recycling and recovery of WEEE in accordance with the Regulations.</i> <p><i>Retailers are required to:</i></p> <ul style="list-style-type: none"> - <i>Register with the local authority under the Regulations</i> - <i>Take-back WEEE in an old-for-new system from the public when new purchases are made</i> - <i>Properly manage WEEE and make it available for collection as set out in the Regulations.</i>

Local Authority are required to:

- Assist in public information and awareness about proper management of WEEE
- Provide for free delivery of WEEE by householders at recycling centres – this will require upgrading of existing facilities and improved management and data recording at these centres
- Provide for delivery by prior arrangement to recycling centres of household WEEE returned to retailers
- Enforce the Regulations including regulating/enforcing self compliant companies, registering retailers, and other functions as may be specified.

15.4 END OF LIFE VEHICLES (ELVS)

The European Parliament and Council Directive (2002/53/EC) came into force on October 21st, 2000 and implementation was set for April 21st, 2002. The primary focus of the Directive is on waste prevention. However, there are certain provisions in relation to recovery, recycling and producer responsibility.

There are three areas, in ensuring the full implementation of the Directive, that have implications for the local authorities – Collection, Regulation/Enforcement and Statistics/Reporting. Over the Plan period Ireland will need to comply with the Directive by ensuring that ELVs are dismantled and recovered in a manner which does not cause environmental pollution and ensuring that the recycling and recovery rates of ELVs and their components are met.

The certain deadlines and targets specified by the ELV Directive are as follows:

- 1) By Jan 1st, 2006 the reuse and recovery for all ELVs shall be no less than 85% by average vehicle weight, whilst the reuse and recycling level shall be no less than 80% by weight.
- 2) For vehicles produced before 1970, the reuse and recovery target is 75% whilst the reuse and recycling target is 70%.
- 3) By Jan 1st, 2015 the reuse and recovery target is 95%, whilst the reuse and recycling target is 90%.”

End of Life Vehicles
<p>Policy:</p> <p>To comply with the EU Directive on End of Life Vehicles (ELV)</p> <p><i>Objectives:</i></p> <p><i>The Local Authorities will:</i></p> <p>Collection</p> <ul style="list-style-type: none"> - Ensure that abandoned and burnt-out cars collected by or on behalf of the local authority are brought to waste permitted/licensed facilities for recovery and disposal. <p>Regulation/Enforcement</p> <ul style="list-style-type: none"> - Annual inspections of permitted facilities will be carried out by the local authorities that issued the relevant Waste Permits to ensure that the storage/treatment facilities of the dismantlers/shredders comply with the requirements - Only collectors who have obtained the necessary collection permits and adhere to the relevant regulations will be allowed to collect ELVs. <p>Statistics/Reporting</p> <ul style="list-style-type: none"> - The local authorities will collect data from the collectors/dismantler and shredders to ensure accurate records are kept

- *Reports to the Government (in this case possibly the EPA) will be submitted annually, from which the Government can compile its reports for the Commission, which it is obliged to do every 3 years.*

15.5 TYRES

This 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 allowed at landfill facilities until 2006.

The objective of this Plan is to minimise the illegal disposal of waste tyres through enforcement to ensure that waste tyres are collected and recycled.

The Irish Tyre Federation, which consists of importers and tyre retailers is in discussion with the DEHLG about a self-policing system in the industry. It is likely to be 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 at discussion stage so it is unlikely to become a reality until the second half of 2006 at the earliest.

Waste Tyres
<p>Policy:</p> <p>To comply with the EU requirements and National Legislation</p> <p><i>Objectives:</i></p> <p><i>The Local Authorities will:</i></p> <ul style="list-style-type: none"> - <i>Maximise recovery of tyres and ensure that waste tyres are collected and recycled through the recognised waste channels</i> - <i>Implement any future regulations introduced by the DEHLG</i> - <i>Support the implementation of any producer responsibility scheme.</i>

15.6 SLUDGE

Local authorities are required to prepare a Sludge Management Plan for the collection, treatment and re-use or disposal of all non-hazardous sludge arising within their functional area. Sludge Management Plans have been prepared for all six local authorities in the Region. Each Plan quantifies the volumes of non-hazardous sludge and sets out a framework policy for the sustainable management of all non-hazardous sludges arising within the functional area. All Plans propose the development of hub centres for sludge treatment within their framework policy. All Draft Sludge Management Plans are currently being reviewed.

Sludge - Non Hazardous
<p>Policy:</p> <p>Each Local Authority will implement the policies stated in their Sludge Management Plan.</p> <p><i>Objectives:</i></p> <p><i>The Plans are specific to each local authority but the majority of Plans include for:</i></p>

- *The development of a main hub centre for the treatment of municipal wastewater and water sludge within their framework policy*
- *The designation of satellite centres which would export sludge to the hub centre*
- *Promotion of the use of bio-solids arising from municipal water and wastewater treatment plants as fertiliser*
- *Meet the targets set out in the County Sludge Management Plans*

15.7 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'.

Objectives/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 Connacht Region 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*,
- Procure efficient cost effective facilities for collection, recycling, energy recovery and disposal,
- Benefit from grant assistance from the governments Environment Fund for appropriate schemes or other grant assistance that may become available from national or EU sources,
- It is an objective that 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, 1997, as amended,
- Use appropriate economic instruments to achieve sustainable waste management, and
- Examine and adopt mutually beneficial partnerships with the private sector for the provision and management of such facilities so as to minimise the operational costs associated with recycling and recovery.

15.8 SITING GUIDELINES

With the exception of the Draft EPA Manual on Landfill Site Selection published in 1995, formal siting guidelines for waste facilities have not been issued by either the EPA or the DEHLG.

General guidelines for the siting of future waste facilities in the Region including:

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

are set out below. 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 Region will adhere to good siting principles.

15.8.1 Recycling Centres, Bring Banks, Materials Recovery Facilities and Transfer Stations

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 or as near as possible to locations where the waste is generated,
- Where practical, consideration should be given to locating the facility in proximity to a strategic transport route,
- Location of facility to be convenient to householders (where public access is provided), and
- Particular regard to be had to traffic considerations.

Transfer stations, recycling and recovery facilities which do not allow public access may be located in rural areas where waste is collected from towns, villages and/or rural areas.

15.8.2 Biological Treatment Facilities

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

- Animal By-Products Directive (1774/2002/EC)

Meat, poultry and vegetable waste falls within the definition of “catering waste” and is thereby an animal by-product. In addition, there is a requirement for a separate veterinary authorization (in addition to normal waste authorization) of composting and anaerobic digestion plants treating catering waste (Article 6.6 of S.I. 248 of 2003 (as amended by S.I. 707 of 2005) transposing EU regulation 1774/22002).

15.8.3 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 and
- Inappropriate 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,
- Residual Waste Outlets (fly ash and bottom ash),
- End-Markets (energy produced),
- Road Access and
- Traffic.

15.8.4 Landfills

The siting of a Landfill Facility in the Region will be carried out in according to 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.

15.9 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 2001 Plan and the objective over this Plan period will be to continue to develop key infrastructure in keeping with the needs of the Region. Mutually beneficial partnerships will be examined and adopted with the private sector for the provision and management of facilities so as to minimise the operational costs associated with recycling and recovery.

Policy:

The Local Authorities shall seek to ensure that adequate integrated waste infrastructure to meet Plan targets is put in place. Mutually beneficial partnerships will be examined and adopted with the private sector for the provision and management of facilities so as to minimise the operational costs associated with recycling and recovery.