

## PART 4



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## 17 WASTE MANAGEMENT POLICY

### 17.1 BACKGROUND TO POLICY DEVELOPMENT

The broad policy for waste management for the Dublin Region was agreed by the four Local Authorities in 1997, with the preparation of the Dublin Waste Management Strategy. Subsequently, the four Authorities gave the Strategy a statutory footing when they adopted the Dublin Waste Management Plan in 1998/1999 which was the first Regional Plan for waste management to be developed in Ireland. In 2004/2005 a review process was undertaken on the Plan, culminating in the preparation of this revised Waste Management Plan in Draft form for consultation.

The policy outlined in this Plan therefore combines the underlying philosophy of *integrated waste management* set out in the original Dublin Waste Strategy, and the findings of a thorough review process carried out between July 2004 and March 2005.

### 17.2 POLICIES OF THE DUBLIN WASTE STRATEGY (1997) AND INITIAL WASTE MANAGEMENT PLAN (1998/2001)

The Dublin Waste Management Strategy Study commenced in 1996, undertaken by an Irish-Danish consultancy team. The first thorough Regional waste data collection was carried out, and a substantial public consultation exercise undertaken. The Strategy has a 15-20 year outlook (1997 – 2017 approximately). Policies and programmes for waste prevention/minimisation and reuse/reduction were assessed. A series of possible waste management options were considered from the perspective of environmental impact, technical feasibility and economics. These are summarised in Table 17.1 below

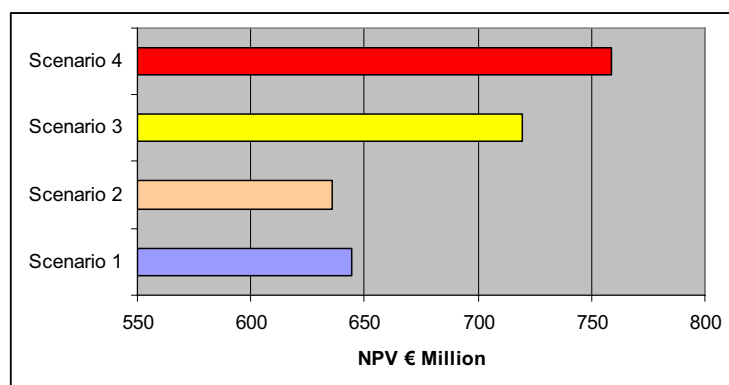
**Table 17.1 Alternative Waste Management Scenarios of the Dublin Waste Strategy**

Scenario	Recycling	Bulk Waste Reduction/Recovery
1	Mandatory recycling according to national and EU recycling targets plus proposed landfill directive	None
2	Maximum realistic recycling	None
3	Mandatory recycling according to national and EU recycling targets plus proposed landfill directive	Thermal treatment
4	Maximum realistic recycling	Thermal treatment

The 1997 Strategy Study included a modelling study, which took into account the environmental, technical, and financial implications of each scenario – this allowed the environmental impacts, costs and waste management performance to be compared for each of the alternatives.

The waste flow assessment enabled the performance of each scenario in terms of waste recycling, energy recovery and disposal requirements to be compared. The type and capacity of waste collection and treatment facilities required under each scenario was set out.

The cost assessment involved estimating the capital and operational costs of the alternative scenarios, taking the waste flows and throughputs into account and modelling the annual cost over a 15 year period. This was combined for each scenario into a 'Net Present Value' (NPV) enabling the global cost of each scenario to be compared (Figure 17.1).



**Figure 17.1 Cost Assessment of Strategy Options**

The environmental assessment of scenarios took into account considerations such as global warming potential, acidification, eutrophication, photochemical ozone formation and other environmental issues. The Scenario 4 option was demonstrated to have the lowest overall environmental load when all considerations were combined.

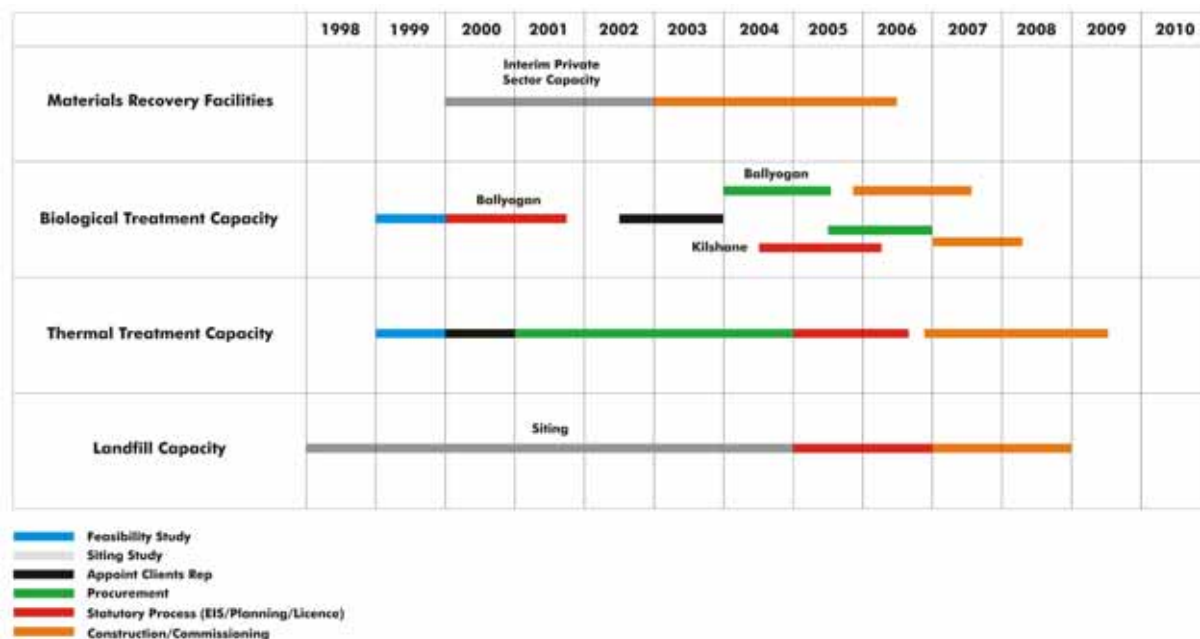
Following assessment, the fourth scenario – combining maximum recycling levels with thermal treatment of the remaining waste – although more expensive than the alternatives, was found to be the Best Practical Environmental Option for the Region. It could deliver on meeting EU and National policy targets, emphasise recovery of recyclable and compostable material, enable energy recovery from residual waste, and minimise reliance on landfill disposal. The Strategy met with general support when presented to the Public and the Elected Representatives.

While the Strategy was noted by the Elected Members of the four Authorities in 1997, it did not have Statutory recognition until the policy was transformed into a Waste Management Plan (prepared under the Waste Management Act 1996, and Waste Management (Planning) Regulation, 1997). This took place during 1998, again involving public consultation during preparation and following publication of the Draft Plan. The Draft Plan was adopted by each of the four Local Authorities in late 1998 to early 1999. The Plan became effective in 2001 when Fingal County Council deleted certain caveats from the earlier Plan. Figure 17.2 illustrates the development of integrated facilities for the management of municipal waste throughout the Region since the development of the Dublin Waste Strategy.

The following targets were adopted for the Region:

**Table 17.2 Targets Adopted in the Dublin Waste Strategy and Plan**

Source	Recycling	Thermal	Landfill
Households	60%	39%	1%
Commerce/Industry	41%	37%	22%
Construction/Demolition	82%	0%	18%
<b>Total</b>	<b>59%</b>	<b>25%</b>	<b>16%</b>

**Figure 17.2 Integrated Local Authority Development of Facilities for Municipal Waste**

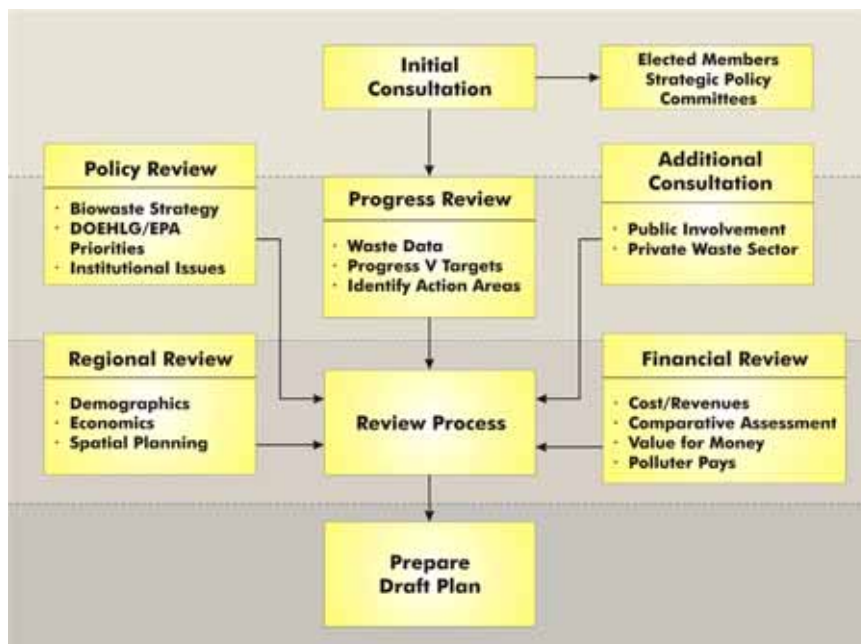
### 17.3 OVERVIEW OF THE REVIEW PROCESS (2004/2005)

During the period 2001 – 2004, the Dublin Waste Management Plan has provided the underlying policy for waste management developments in the Region. According to the Waste Management Act, each Plan must be reviewed within five years of adoption, hence the Review process that formally commenced in July 2004 with an invitation for public submissions.

The review comprised the following strands:

- Broad consultation with the public to determine their views and level of satisfaction with the Plan to date
- Assessment of waste management performance, with updated data, compared with the objectives of the Plan
- Assessment of new Government policy and EU level policies (and legislation), and the impacts for the Dublin Region
- Consideration of new information, philosophies, technologies and opportunities since the original strategy was developed
- Looking at the changing nature of the Dublin Region and implications for waste management

Figure 17.3 Overview of the Review Process



## 17.4 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 II of this Plan.

A 'policy review' followed, whereby issues identified during consultation and data collection were assessed, and the implications of new policies and legislation were considered. In general for each of the topics covered, the current Dublin performance 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 delivered/ 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.

The following were the main issues dealt with in the Review process:

**Prevention and Minimisation** – the review looked separately at household and community level activities and the business sector including small & medium enterprises (SME), resulting in some recommendations for additional measures and activities to be led by the Local Authorities, and how this service can be delivered most effectively by the Local Authorities.

**Community Involvement and Social Sector Projects** – a number of projects have been set up since the original Plan was adopted. These and other international examples of community/ voluntary sector projects were assessed with a view to developing further opportunities.

**Performance of Recycling Systems** - household and commercial/industrial waste recycling was assessed, to determine where further improvements were possible. This considered options for collection systems, infrastructure and regulatory options.

**Projection of Future Waste Generation** – taking into account waste growth during the Plan period, the review assessed likely future demographic and economic changes and the potential impact of waste prevention and minimisation measures in order to make waste projections for the future.

**Draft National Biodegradable Waste Strategy and the EU Landfill Directive** – progress towards meeting the relevant targets for diversion of waste away from landfill and towards materials recovery and biological treatment was assessed. The potential role for thermal treatment (Waste to Energy) and alternative methods of residual waste treatment was examined. Other proposals of the Draft Strategy were also taken on board. Emerging waste treatment technologies were also considered.

**Implementation of National Hazardous Waste Management Plan 2001** – the Local Authorities are responsible for implementing several recommendations of this policy. The review examined performance to date in the Region and recommended future actions needed.

**Construction and Demolition Waste Management** – starting with an assessment of the current arisings and management methods, the review examined areas where C&D waste management needs improvement, including the implementation of the new Construction Industry Federation voluntary initiative and the possibilities for improving recycling practices.

**Packaging Waste** – in addition to examining current arisings and recycling/ recovery performance, the review assessed effectiveness of the current enforcement by Local Authorities of packaging legislation, levels of cost recovery from industry by Local Authorities, and other potential options for improvement.

**Waste Electrical and Electronic Equipment Directive** – when transposed into Irish law, this 'producer responsibility' Directive will significantly change how WEEE is managed from consumer to end recycling/disposal. The implications for Local Authority services was considered.

**End Of Life Vehicle (EOLV) Directive** – new systems for ensuring scrap vehicles are properly recycled are being brought into force by means of 'producer responsibility' – the ability for the Dublin Region to implement the new system was assessed.

**Other Legislation at EU and National Level** – the review examined changes to waste management legislation since the previous Plan was adopted, and considered foreseeable future legislation from the EU and at national level.

**Regulation and Enforcement** – highlighted by several stakeholders as a key issue in Plan implementation, the current Local Authority systems to regulate waste management activities - from producers to consumers and waste collection/ treatment companies - was assessed.

**Co-operation with the Planning System** – the potential to maximise benefit from co-ordinated future planning was assessed, particularly examining how good co-ordination of Local Authority resources in the Planning and Environmental Sections could facilitate improved waste management.

**Consultation with neighbouring Local Authorities** – Meetings were held with neighbouring Local Authorities in relation to the Plan Review.

**Infrastructure Requirements and Waste Disposal Needs** – the review considered current capacity available to manage the waste generated in the Region, and what further capacity is needed to meet the plan targets. This included an assessment of waste disposal capacity options available and in planning. An assessment was also carried out as to whether the suggested alternative to Waste to Energy, i.e. MBT (Mechanical Biological Treatment) was feasible in the Dublin Region (see box below).

**Financial Assessment** – the current expenditure and revenue was assessed on a regional basis and the cost implications for the future were considered bearing in mind the need to improve cost recovery and achieve implementation of the Polluter Pays Principle.

#### **Assessment of MBT option in the Dublin Region**

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.

Several waste treatment plants operating in Europe employ some form of MBT. The option is being considered by some authorities and private companies in the UK as a possible alternative to Waste to Energy (WTE) / incineration. Several variations on the system exist, and there are varying degrees of sophistication available in MBT systems. Following MBT treatment, the mixed waste is generally split into two main fractions:

- A dry residue (Refuse Derived Fuel / RDF), which is usually sent for energy recovery by incineration or to cement kilns where it is co-combusted with other fuel
- An organic residue, similar to compost but with a higher degree of contamination and impurities, making it unsuitable for high-grade applications (it is often used as a landfill daily cover)

There is also a smaller proportion of solid residues such as metal (recycled) and glass/ stones.

MBT does not eliminate the need for landfill but can play a role in reducing the biodegradability of input waste if this must be subsequently landfilled or even used as a landfill cover material. Residues are produced by MBT which must be landfilled or thermally treated.

The possibility for MBT to play a role in the context of the Dublin Region was assessed, bearing in mind that some submissions suggested it would remove the need for a WTE facility. MBT should not be regarded as a direct alternative to WTE. In fact, where RDF is produced by MBT the plant will form one step in a longer process where energy is recovered from waste. Overall it was found that MBT would not offer any significant advantages for the Dublin Region, given that: :

- The Dublin Region is pursuing a policy to source separate organic waste to make clean compost – this will remove a significant portion of the organic waste from the mixed waste stream. This approach offers the best chance for the development of a sustainable market outlets for good quality compost / treated organic waste. This market will be very sensitive to product quality.
- Compost produced from source separated waste has a much higher quality and chance of being utilised than compost produced by screening and sorting mixed municipal waste. The production of large volumes of low grade compost from MBT could be detrimental to the establishment of markets for the cleaner compost and ultimately any compost product.
- The feasibility of RDF production is highly dependent on markets and quality / nature of the product; this includes finding facilities that can meet the EU Waste Incineration Directive requirements to burn the MBT residues. These do not currently exist in Ireland. Without such outlets, this material would need to be landfilled, composted or thermally treated at a central facility i.e. this option could result in a regressive situation where energy is expended for no benefit.
- The energy yield from WTE is better than from MBT systems, meaning WTE can reduce greenhouse gas emissions to a greater extent. Waste to energy is therefore placed higher on the Waste Management Hierarchy.
- WTE is a robust treatment technology proven to work well on a variety of waste streams and at the scale required in the Dublin Region

On this basis, thermal treatment (with energy recovery) of residual waste i.e. after recycling and composting of source separated organic waste, is the continued policy of the Dublin Region. This policy will deliver a highly integrated system that is optimised in terms of environmental and economic factors.

## 17.5 OUTCOME OF THE REVIEW PROCESS

Reflecting on positive progress, the Review Process confirmed that:

- The waste management performance of the Region has improved dramatically since 1998
- There is general support for the integrated waste management approach
- The Local Authorities have made vast improvements to household waste services, resulting in better recycling performance
- The private sector has generally responded positively to the waste management plan resulting in improved recycling performance for industrial/ commercial waste
- Cost recovery for waste management has improved, although there is still a deficit in this sector

Regarding Plan implementation to date, the following are the underlying areas for improvement:

- Target dates of the original plan were over-ambitious, bearing in mind the scale of the waste management challenge and the practicalities of implementing a variety of new collections and facilities
- More consistency in implementation is desirable – between one Local Authority and the next, between one area and the next, including the charging systems for waste
- Further progress on prevention/minimisation is sought, including greater responsibility from industry to minimise waste transferred to consumer level
- There are still significant deficits in infrastructure to manage waste generated in Dublin and this is increasing costs and making it more difficult to achieve recycling and energy recovery targets. Progress in relation to organic waste treatment and the Dublin Waste to Energy Plant is critical in order to meet targets, and progress in relation to the Fingal Landfill project is critical to avoid a crisis in landfill capacity.
- Regulation and Enforcement is of vital importance
- The desirability of more waste being recycled and reprocessed in Ireland is an underlying theme to consultation.

The findings of the review process have been incorporated into this replacement Draft Waste Management Plan for the period 2005-2010

## 17.6 POLICY STATEMENT

The Dublin Region will strive to implement a sustainable waste management system that is based on the principles of the EU Waste hierarchy and up to date National and EU policies.

- Waste prevention and minimisation is a challenge for society – the Local Authorities will lead a campaign aimed at community and business level to reduce waste arisings.
- Waste shall be managed such that it will not give rise to environmental pollution
- The integrated waste management approach will be applied to waste generated, implementing reuse, maximum recycling, recovery of energy from residual waste, and minimising landfill disposal where possible
- It is a goal to create equity of access to waste management facilities and services across the Region



- Local Authorities will continue to respond to public input and to work in co-operation with the voluntary sector, private waste management companies and other stakeholders
- It is a goal to deliver a cost-effective and affordable system meeting the 'polluter pays principle' that meets high standards of environmental performance and all legislative obligations
- The Dublin Region will aim to develop an integrated suite of waste management infrastructure, to enable waste generated in the Region to be treated in the Region as far as possible, in the interests of sustainability.
- The private sector waste industry will be encouraged to provide waste management infrastructure and services.
- The Dublin Local Authorities are supportive of co-operation with neighbouring counties to enable efficient development of infrastructural capacity for waste management.

## 17.7 TARGETS

The original targets of the Dublin Waste Strategy are deemed valid future targets for the Region, although the original time-frame for meeting the targets was over-ambitious. The key milestone for meeting these targets should be once the waste to energy plant is operational. It is suggested that the target date be extended to 2013.

**Table 17.3 Waste Stream Targets for 2013**

Source	Recycling	Waste To Energy	Landfill
Households	60%	39%	1%
Commerce/Industry	41%	37%	22%
Construction/Demolition	82%	0%	18%
<b>Total</b>	<b>59%</b>	<b>25%</b>	<b>16%</b>

### Comments on Targets:

- With household recycling still below 20% in 2003, to achieve 60% recycling will be very difficult: this target should be re-assessed once the organic waste collection/ treatment and the network of Recycling Centres is fully established (2008/2009).
- Commercial/Industrial waste recycling is already above 30%: it may be possible to surpass original targets (41%), which would serve to balance any shortfall in household targets.
- Recycling targets for C&D waste are difficult to assess: there is a significant volume of soil being generated, with limited outlets for real 'recycling'. However the 82% target should continue to apply to all rubble, concrete, stone, packaging and other waste generated on building and demolition sites. Changes to data recording are needed to monitor this target (identifying soil and stones separately).
- Targets will be subject to ongoing review as necessary, every two years as a minimum.

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

- Delay of recovery/recycling will lead to more pressure on waste to energy and disposal facilities
- Delay or difficulties in achieving waste to energy capacity will increase pressure on landfill disposal, requiring short term extensions
- Delay with proposed landfill capacity will increase pressure on use of existing sites, other sites in GDA or other regions in the short term

- Where preferred locations for facilities that have been identified in the Plan for a particular purpose are subsequently determined to be unsuitable, the Dublin Local Authorities may select another preferred site, with reference to existing siting studies where relevant.

## 17.8 IMPLEMENTING THE POLLUTER PAYS PRINCIPLE

The principle behind 'Polluter Pays' is that the person who created a risk of pollution or cause pollution will bear the cost of prevention or of remedial action. There are two aspects to this principle. It requires that the person who causes the pollution to bear not only the cost of remedying the pollution but also those costs arising from the implementation of a policy of pollution prevention.

Therefore householders are obliged to pay not just for the cost of the collection and disposal of waste in their Grey bins, but for other services that are provided by the Local Authority in respect of waste presented in Green bins (and Brown Bins in 2006) along with waste presented to Recycling Centres and Bring Banks.

In accordance with this the 'polluter pays principle' is prioritised and reinforced by the Pay by Weight/Use system being implemented nationally. It is considered that levying of charges which incorporate the 'use-related' principle is the most environmentally effective way to charge for waste management services and will encourage a move away from landfill disposal towards more sustainable waste practices (see also Section 7.5). When additional facilities and services are provided the Local Authorities will continue to employ, adjust and introduce user fees for waste services and facilities provided and shall use the income from the fees to finance measures taken in pursuit of objectives of the Plan in order to deliver a cost effective and affordable system having regard to the polluter pays principle.

In relation to other waste streams such as Commercial and Industrial waste, and Construction & Demolition waste, this Plan requires the polluter pays principle to be implemented. This can be achieved by:

- Relating the charges for waste to the amount generated
- Setting users fees that incentivise sustainable waste management in terms of prevention, reduction, source separation and recycling of waste
- Applying facility gate fees that apply the full cost of the facility including development, operation, monitoring and aftercare in a manner that affords environmental protection in accordance with relevant legislation.

In addition, this Plan supports the development of Producer Responsibility schemes to improve waste management for specific waste streams, which is another method by which the Polluter Pays Principle can be incorporated into waste management.(See Section 18.12)

Where sites are identified in the region as former non-hazardous or hazardous waste disposal or recovery locations (see Section 19.7 & 19.8), any subsequent costs for the investigation and remediation of these sites should be borne by the polluter.

# 18 POLICIES AND OBJECTIVES FOR MUNICIPAL & INDUSTRIAL WASTE

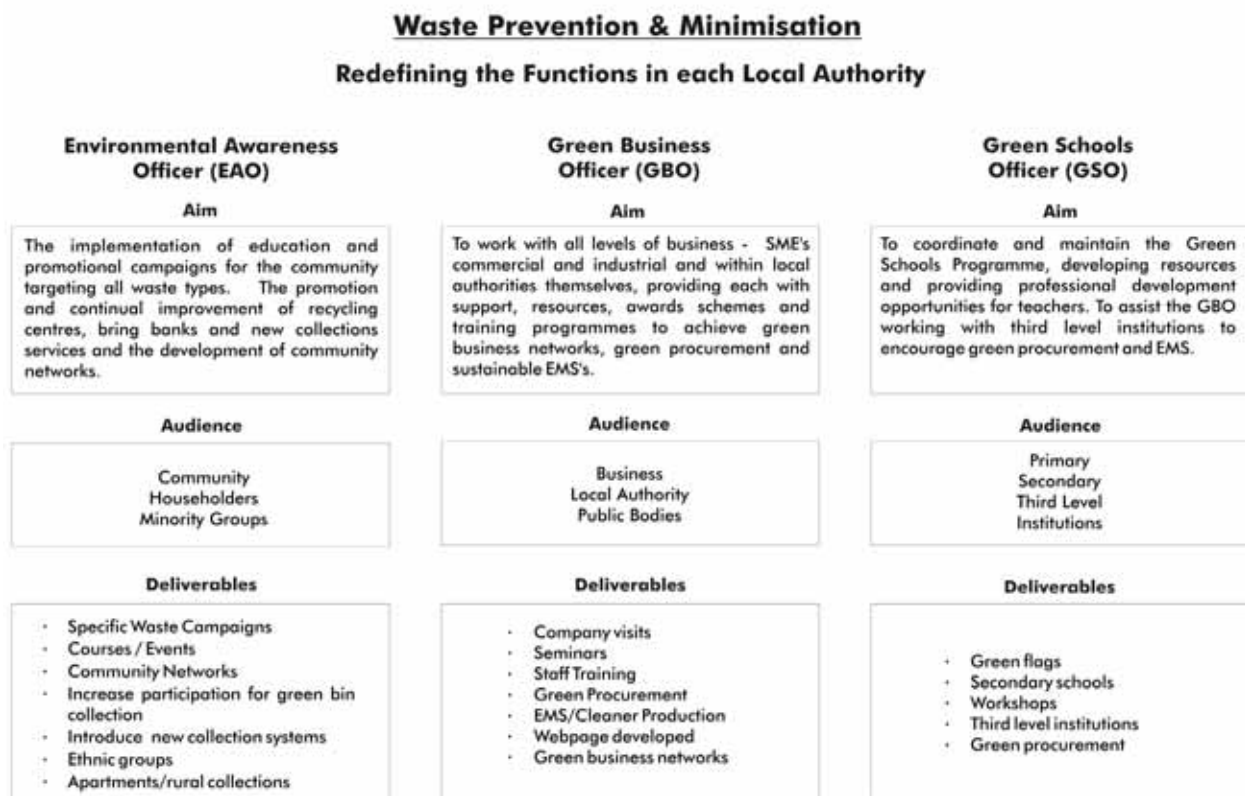
## 18.1 WASTE PREVENTION AND MINIMISATION

Prevention is at the core of EU and Irish legislation, and the activities of the Local Authorities in the Region over the period of this Plan need to reflect this. The achievements in waste prevention and minimisation have improved greatly since the appointment of the EAOs in each Local Authority. The review process identified that since the EAOs were appointed in 2001 the role has grown and diversified as the public awareness of the waste issue has risen, and so too has the number of households, businesses and schools.

At a 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 and these should be fully utilised within the Dublin Region.

Locally, much of the change with regard to improvements in waste prevention for the proposed Plan hinges on the commitment to prioritise prevention, the provision of adequate resources and the appointment of designated staff to focus on three main target audiences, Figure 18.1 outlines the suggested functions and their respective audiences and deliverables.

**Figure 18.1 Redefining the Functions in each Local Authority**



- Objective: In addition to the current EAO each Local Authority employs (if it has not already done so) a Green Business Officer, and a Green Schools Officer.
- Objective: The Regional Waste Steering Group will establish a mechanism for coordination of the activities of the Awareness Staff (EAO GBO and GSO) in each of the four Local Authorities to deliver a coherent strategy for the Region.
- Objective: The Dublin Region will work closely with National/EPA initiatives for waste prevention/minimisation
- Objective: The Dublin Region will continue to apply use-related charges for waste services in support of prevention, minimisation and recycling.
- Objective: The EAOs will provide training opportunities for ‘community champions’ to assist in raising awareness and improving environmental behaviour in their communities.
- Objective: The Local Authority Awareness Officers will support and encourage small scale central composting programmes within, for example: communities, apartments and shopping centres and the involvement of landscaping contractors in managing green waste onsite is encouraged.
- Objective: Use of wood and green waste chippers by people with large gardens to be considered by the Local Authority staff and recommended where appropriate to reduce the need for transport and central composting.

**Waste characterisation** is valuable in identifying opportunities for waste prevention, ensuring the recycling collections are operating efficiently, enabling forward planning and helping to focus the public information message. The Dublin Local Authorities will undertake ongoing characterisation of household waste in accordance with the manual provided by the EPA. The programme will be co-ordinated on a regional level and will follow the programme to be agreed by the EPA in late 2005. Information gathered will be useful in assessing the effectiveness of waste prevention programmes and the success of recycling collections

**Figure 18.2 Communication Flows within the Local Authorities**



## 18.2 COMMUNITY AND VOLUNTARY SECTOR INVOLVEMENT

The Waste Management Plan needs to address the role the community and voluntary sector can play in reducing the quantity of waste buried in landfill. Chapter 6 highlighted several successful and innovative recycling initiatives that are running in the Dublin Region. Initiatives like these need to be supported both financially and promotionally. Funding for community projects can be sought not only from the Local Authorities but also through the National Waste Prevention Programme and other government funded programmes.

**Objective:** The Local Authorities will encourage community/voluntary groups to establish sustainable additional waste services or facilities (e.g. small scale facilities for recycling, reuse/repair) they would like in their area and assist them to develop a strategy to provide it, for and with the members of their community.

**Objective:** Environmental Awareness Officers in the Region will advise on the sources of funding available and assist in the preparation of any applications for funding.

## 18.3 REUSE AND REPAIR

It is an objective of the Plan to support the development of reuse and repair facilities in the Region. The Local Authorities will explore this through cooperation with the voluntary sector, the waste management sector and other possible project partners.

**Objective:** to develop a 'resource recovery centre' in the Region enabling reuse/ repair of household items.

**Objective:** To provide an online 'virtual' reuse centre through the Dublin Regional Website [www.DublinWaste.ie](http://www.DublinWaste.ie) to enable the public to reuse household goods.

## 18.4 HOUSEHOLD WASTE COLLECTION AND RECYCLING

The Dublin Local Authorities will continue to offer an integrated and cost-effective collection service to households in the Region. Emphasis will be on separate collection of clean, high value resources. Recognising some inconsistencies in the current service levels across the Region, the Local Authorities will work to harmonise the current system over the Plan period.

**Specific objectives are:**



*Underground Recycling Bins in Spain*

- To implement use-related charging systems in support of waste minimisation and recycling in accordance with the Polluter Pays Principle (as outlined in Section 7.5)
- To continue to extend and improve the green bin recycling service, increasing the quantity of material collected for recycling. This will be achieved through ongoing public information and motivation, increasing the capacity of the system, and continuing to extend collection to multi-unit dwellings. It is proposed to include new materials such as plastic bottles in the door-to-door collection.

- The Local Authorities will specify through consistent Bye-Laws across the Region how householders must separate and present waste. Bye-laws will set out how various household materials will be presented (broadly following the representation in Figure 18.3), and will be updated by the Local Authorities as required. The Bye-Laws will include a suitable fine for non compliance.
- All private apartments will be required to introduce a separate collection system for household dry recyclables, meeting the same standard as Local Authority services (see box below).
- Undertaking trials with underground bins in the region area will be addressed as a priority.
- The Local Authorities may require developers to include bring banks in new commercial and residential developments at planning stage in accordance with the recycling objectives of this Plan.
- Continual improvement of the Green Bin service is an objective. This can be achieved through regular reporting of tonnages, regular composition surveys on the materials collected, and subsequent targeted actions by the local authorities to address areas where performance can be improved by better public awareness and service provision. The proposed model for household waste collection and recycling in the Region is presented in Figure 18.3.
- To continue to expand the network of bring banks, employing innovative methods of siting and collection e.g. underground banks. 111 new bring banks are proposed (see Table 18.1). Existing sites may be expanded or upgraded to accept additional materials.
- The four Dublin Local Authorities will work to ensure that all bring banks are consistent and meet the same standard of appearance and service level. This will include the use of the regional waste logo, a standard set of names and colour coding of containers. A protocol for servicing bring banks will be agreed and all contractors required to meet the specifications set out, and the design standards set.
- To provide additional Recycling Centres with facilities to accept a variety of materials not catered for in the door-to-door collection service, including WEEE, household hazardous waste, green waste and household C&D (DIY) waste. Several additional facilities are proposed as outlined in Map 11, Table 18.2 and Appendix H. It is intended to have at least 12 full-scale Recycling Centres in operation by 2010, complimented by additional Centres at community level.
- The opening hours of Recycling Centres to be extended to cover weekends/outside normal work hours where local conditions allow.
- To ensure that household waste storage facilities including recycling facilities is adequately addressed in all proposed new residential developments, by taking this into account during the Planning Application process. New developments will be required to conform with waste storage guidelines (refer to Appendix C of this Plan).
- The Dublin Local Authorities propose to introduce an additional household waste collection ('brown bin') for organic waste generated by households. This will be introduced on a phased basis once biological treatment capacity is established. The household waste collection system (including the grey/black bin) may switch to an alternating fortnightly collection for household waste at this time.
- The Brown Bin Service will be piloted in different locations throughout the Region to establish the most appropriate service for all householders, taking into account bin size and type, and collection frequency in order that the public are satisfied and willing to use the service. The most suitable charging mechanism for the Brown Bin service will be investigated during the pilots.
- The Environmental Awareness Officers will be responsible for regular targeted information campaigns at both local and regional level for current and proposed recycling collections. The campaigns using a variety of media; radio, newspaper, brochures, mail drops, community groups, neighbourhood champions etc will ensure that the public, including assisting non-English speaking communities to ensure that the public, are motivated to recycle and are well informed of where, how and when they can recycle.

### **Waste in Apartments – Additional Policies**

A growing proportion of Dublin's population live in apartments, and it is intended that apartment dwellers should have the same standard of waste service as household dwellers as far as possible. This will require a fresh approach to the design of new apartment blocks, and changes to the way waste is managed in existing blocks. The following objectives are set out:

- Space for Recycling – recycling requires separation of recyclable materials both within the apartment, and in the communal waste storage/ collection area. Adequate space needs to be made for 3-bin recycling systems (green, brown, and black bins) in both respects.
- Glass bottles will continue to be collected at bring banks. New apartments should include separate facilities for collection of glass. This can be achieved through dedicated wheeled bins or underground bring bank systems.
- Organic waste (food and garden waste) collections will commence for householders in 2006 and eventually extend to apartment blocks, therefore space provision for brown bins will be required. Pilot scale implementation of brown bin collection in apartments will be carried out initially.
- The same service levels will be required of apartment complexes whether they are serviced by Local Authority or private waste collectors.
- In order to plan new buildings with recycling in mind, the Local Authorities will develop a booklet for the planning section and for all developers 'Guidelines for waste management in apartment developments' with practical examples of the required approved design.



In order to establish practical solutions to achieving use related charging for apartment dwellers, pilot studies will be carried out on apartments in the Plan Period, with a view to extending the solutions to all apartment blocks

Green waste created by landscaping of apartment complexes can in some cases be effectively managed on site by composting, in which case the cost and transportation is reduced. Opportunities for on-site green waste management should be explored at planning stage and in existing apartment blocks.

**Table 18.1 Summary of Bring Bank targets**

<b>Local Authority</b>	<b>DCC</b>	<b>DLRCC</b>	<b>FCC</b>	<b>SDCC</b>
Existing Bring Banks	73	64	70	50
New Bring Banks target	49	13	20	29
Total target	122	77	96	79
Target Ratio (population per site)	1:3,500	1:2,500	1:2,500	1:2,500

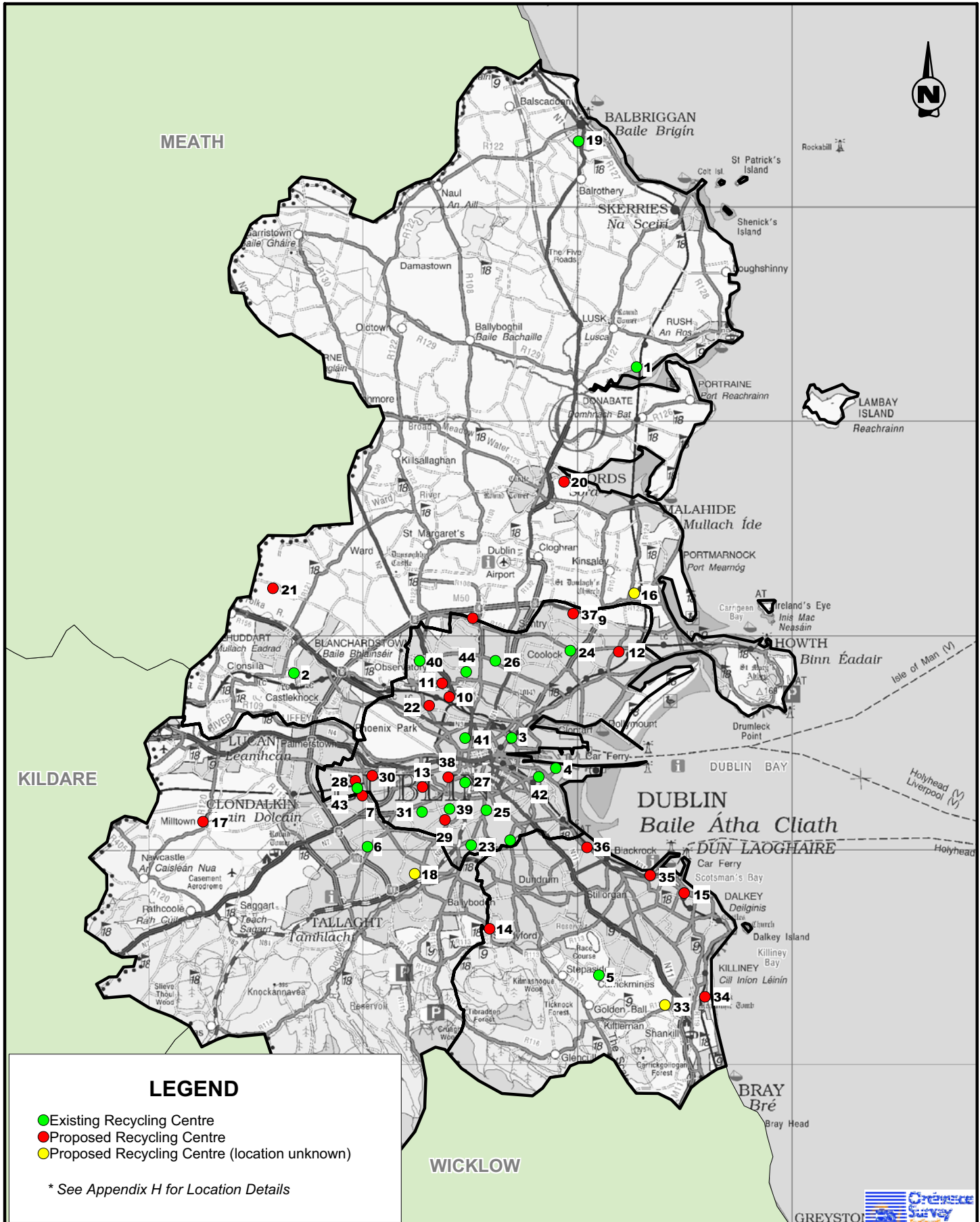
Note: Some banks may be expanded or the range of materials accepted may be increased

Table 18.2 Summary of Recycling Centres/Community Recycling Centres

Local Authority	Recycling Centre Name	Address	Status
DCC	Milltown Road	Milltown Car Park, Milltown Road, Dublin 6	Existing
	Herzog Park	Herzog Park, Orwell Road, Rathgar, Dublin 6	Existing
	Oscar Traynor Road	Oscar Traynor Road, Coolock, Dublin 5	Existing
	Gullistan Terrace	Gullistan Terrace, Rathmines, Dublin 6	Existing
	Windmill Road	49/51 Windmill Road, Crumlin, Dublin 12	Existing
	Collins Avenue	Collins Avenue, (Opp DCU Extension) Dublin 9	Existing
	Eamon Ceannt Park	Eamon Ceannt Park, Rutland Grove, Crumlin, Dublin 12	Existing
	Grangegorman	Grangegorman, Grangegorman Upper, Dublin 7	Existing
	London Bridge Road	London Bridge Road, Ringsend, Dublin 4	Existing
	Kylemore Park North	Kylemore Park North, Ballyfermot, Dublin 10	Existing
	Ringsend	Ringsend Recycling Centre, Pigeon House Road, Dublin 4	Existing
	Shamrock Terrace	North Strand Recycling Centre, North Strand Road, Dublin 3	Existing
	Seanchara Community Centre	Seanchara Community Centre, St.Canices Road, Dublin 11	Existing
	Colaiste Eoin	Colaiste Eoin, Cappagh Road, Finglas, Dublin 11	Existing
	Sweeney's Terrace	Sweeney's Terrace, Dublin 8	Existing
	Mount Olive	Mount Olive Road, Kilbarrack, Dublin 5	Proposed
	Belcamp Lane	Belcamp Lane, (Adj to N32), Dublin 17	Proposed
	Le Fanu Park	Le Fanu Park, Ballyfermot, Dublin 10	Proposed
	Labre Park	Labre Park, Ballyfermot, Dublin 10	Proposed
	Rediscovery Centre Ballymun	St. Margaret's Road, Ballymun, Dublin 11	Proposed
	Tolka Valley Park	Tolka Valley Park, Tolka Valley Road, Finglas, Dublin 11	Proposed
	Garryowen Road	Garryowen Road, Ballyfermot, Dublin 10	Proposed
	Broombridge Road	Broombridge Road, Cabra, Dublin 7	Proposed
Galtymore Park	Galtymore Park, Drimnagh, Dublin 12	Proposed	
St. Dominic's Park	St. Dominic's Park, Belcamp Lane (Adj to N32), Dublin 17	Proposed	
Slaney Road	Slaney Road, Dublin Industrial Estate, Glasnevin, Dublin 11	Proposed	
Sundrive Road	Sundrive Road, Crumlin, Dublin 12	Proposed	
St. James's Walk	St. James's Walk, Dublin 8	Proposed	
DLRCC	Ballyogan	Ballyogan Recycling Park, Ballyogan Road, Dublin 18	Existing
	Eden Park	Eden Park, Glasthule, County Dublin	Proposed
	Marley	Grange Road, Ballinteer, Dublin 14	Proposed
	Boosterstown	Rock Road, Blackrock, County Dublin	Proposed
	Shanganagh	Adjacent to Shanganagh Wastewater Treatment Works, Shankill, County Dublin	Proposed
	West Pier	West Pier, Dun Laoghaire, County Dublin	Proposed
	Cherrywood/ Rathmichael Catchment	(Location not yet identified)	Proposed
FCC	Balleally	Balleally Lane, Lusk, County Dublin	Existing
	Coolmine	Coolmine Industrial Estate, Dublin 15	Existing
	Balbriggan	Unit 1, IDA Industrial Estate, Balbriggan, County Dublin	Existing
	Damastown	Damastown Industrial Park, Damastown, Dublin 15	Proposed
	Estuary	Seatown East, Swords, County Dublin	Proposed
	Portmarnock/ Baldoyle/ Sutton Catchment	(Location not yet identified)	Proposed
SDCC	Ballymount	Ballymount Road, Walkinstown, Dublin 12	Existing
	Lucan/ Clondalkin Catchment	Clutterland, Clondalkin, County Dublin	Proposed
	Rathfarnham/ Templogue Catchment	(Location not yet identified)	Proposed

**Notes:**Please refer to Map 11 and Appendix H for the outline location of the individual facilities. Each map in Appendix H contains a list of proposed activities on the site. "Full range of Household Recyclables" includes for example glass, plastic, cardboard, paper, cans, and beverage cartons. Some existing Recycling Centres/ Community Recycling Centres may be expanded or upgraded to accept additional materials as outlined in each of these maps. Where the location of the site is not known at this stage, the map is omitted. Where the types of activity proposed are not known at this stage, the map identifies only the outline location.





**LEGEND**

- Existing Recycling Centre
- Proposed Recycling Centre
- Proposed Recycling Centre (location unknown)

\* See Appendix H for Location Details

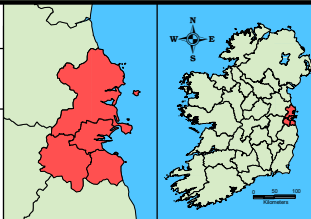
Project **Dublin Waste Plan** Figure **Map 11**

Title **Dublin Region - Existing & Proposed Recycling Centres**



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**Notes**

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ID	FACILITY_NAME	LOCATION	STATUS
1	Balleally Civic Amenity	Balleally Landfill, Balleally Lane, Lusk, Co. Dublin	Existing
2	Coolmine Recycling Centre	Coolmine Industrial Estate, Dublin 15	Existing
3	Shamrock Terrace Recycling Centre	North Strand, Dublin 1	Existing
4	Ringsend Recycling Centre	Pigeon House Road, Ringsend, Dublin 4	Existing
5	Ballyogan Recycling Centre	Ballyogan Recycling Park, Carrickmines, Dublin 18	Existing
6	Ballymount Recycling Centre	Ballymount Industrial Estate, Dublin 12	Existing
7	Labre Park Recycling Centre	Labre Park, Ballyfermot, Dublin 10	Proposed
8	Milltown Road	Milltown Car Park, Milltown Road	Existing
9	Site at N32 Belcamp	Belcamp	Proposed
10	Slaney Road	Glasnevin Industrial Estate, Glasnevin	Proposed
11	Tolka Valley Recycling Centre	Finglas Business Park (Open space at Tolka Vale)	Proposed
12	Mount Olive Recycling Centre	Mount Olive, Kilbarrack	Proposed
13	Galtymore Park	Galtymore Park	Proposed
14	Marley	Off Grange Road	Proposed
15	Eden Park	Glasthule	Proposed
16	Portmarnock/Baldoye/Sutton Catchment	Location not yet identified	Proposed (location unknown)
17	Lucan / Clondalkin Catchment	Lucan / Clondalkin Catchment	Proposed
18	Rathfarnham / Templeogue Catchment	Location not yet identified	Proposed (location unknown)
19	Balbriggan Recycling Centre	IDA Industrial Estate, Balbriggan	Existing
20	Estuary Recycling Centre	Seatown East, Swords	Proposed
21	Damastown Recycling Centre	Damastown Industrial Estate	Proposed
22	Broombridge Road	Broombridge Road	Proposed
23	Herzog Park	Herzog Park, Orwell Road	Existing
24	Oscar Traynor Road	Oscar Traynor Road	Existing
25	Gullistan Terrace	Dublin City Council / off Rathmines Road Lower	Existing
26	Collins Avenue	Dublin City Council Depot / off Collins Ave Extension	Existing
27	Sweeney's Terrace	Off Cork Street	Existing
28	LE FANU Park	Blackditch Road, Ballyfermot	Proposed
29	Sundrive Road	Sundrive Road	Proposed
30	Garryowen Road	Garryowen Road near Markievicz Park	Proposed
31	Windmill Road	Windmill Road	Existing
32	Rediscovery Centre Ballymun	St. Margarets Road, Ballymun	Proposed
33	Cherrywood-Rathmichael	Cherrywood / Rathmichael Area	Proposed (location unknown)
34	Shanganagh Recycling Centre	Adj. to Shanganagh Wastewater Treatment Works	Proposed
35	West Pier Amenity Area	West Pier, Dun Laoghaire	Proposed
36	Boosterstown Amenity Area	Boosterstown	Proposed
37	St. Dominics Park	Off Belcamp Lane, N32, Dublin 17	Proposed
38	St. James's Walk	St. James's Walk, Dublin 8	Proposed
39	Eamonn Ceannt Park	Eamonn Ceannt Park, Rutland Grove, Crumlin	Existing
40	Colaiste Eoin	Cappagh Road, Finglas	Existing
41	Grangegorman Upper	Grangegorman Upper, Phibsboro	Existing
42	Londonbridge Road	Londonbridge Road, Irishtown	Existing
43	Kylemore Park North	Kylemore Park North, off Kylemore Road	Existing
44	Seanchara Community Centre	St. Canice's Road, off Ballymun Road	Existing

Figure 18.3 Overview of Household Waste Collection



## 18.5 COMMERCIAL/INDUSTRIAL WASTE COLLECTION AND RECYCLING

A further increase in recycling of commercial/industrial waste is an objective of the Plan. This includes dry-recyclable waste and organic waste. A two-pronged approach is required:

1. Develop an information and promotion campaign (building on Race Against Waste 'Small Change' business campaign).
2. Regulation of waste producers and collection companies to require source segregation

### 18.5.1 Dry Recyclables from Commerce and Industry

This includes paper, cardboard, glass, metals, plastic and other materials. Increased recycling will require co-operation of the waste generators (shops, offices, institutions, industries) and also the private waste collection sector.

Early consultation will take place with collection companies about the time frame involved and the materials in question, including details of phasing-in. Some facilitation of recycling for small business may be required, in particular where space is not readily available or the individual businesses are very small. The Local Authorities will encourage alternative collection systems for businesses (e.g. underground containers with swipe card which opens only for the businesses) or encourage businesses to group in order to achieve economy of scale and obtain better service.

The following objectives are set:

- The Local Authorities will promote a campaign of awareness for business waste, working with relevant stakeholders such as the Chambers of Commerce, Repak, and waste collection companies.
- Commercial Waste Bye-laws will be drawn up to require source separation of specific recyclable wastes from business. The Bye-Laws will be made consistent across the Region and will include a suitable fine for non-compliance.
- Waste Collection Permits will be revised to require the waste collector to provide separate collection of dry recyclables to its customers, in accordance with Bye-law requirements.

### 18.5.2 Organic Waste from Commerce and Industry

It is an objective of this Plan that a source separated organic collection be introduced for commercial organic waste.

For organic waste, the programme will focus on sectors with greater generation of organic waste, namely hotels, restaurants, canteens, larger institutions and companies working with food. Treatment capacity is currently under development, therefore regulation of the dry recyclables will occur first. The intervening period will be used to discuss the practicalities of implementation with the private waste collection companies and relevant businesses.

The following objectives are set:

- The Local Authorities will promote a campaign of awareness for relevant businesses, working with relevant stakeholders
- Commercial waste Bye-Laws will be drawn up to require source separation of organic wastes from relevant business. The Bye-Laws will be made consistent across the Region and will include a suitable fine for non-compliance.
- Waste Collection Permits will be revised to require the waste collector to provide separate collection of commercial organic waste to its customers, in accordance with Bye-law requirements.
- The implementation date needs to be agreed with collection companies well in advance. A phased geographical roll-out may be agreed that will stream-line the resources needed to enforce the Bye-Laws.

Some businesses or institutions may have the space and a suitable waste stream to consider an on-site organic treatment –e.g. vermi-composting, small-scale in-vessel composters etc.. Support and information will be provided to interested companies. They will need to operate under Waste Permit.

### 18.5.3 Delivery Points for Commercial/ Industrial Wastes

The Local Authorities support the concept of Recycling Parks for commercial/industrial waste whereby small-scale waste producers can deliver materials for recycling and treatment. Such facilities are intended for SMEs and other small-scale waste producers, and also to relieve pressure on recycling centres which are designed and operated for the household sector. Commercial/ Industrial Recycling Parks will operate on a fee-paying basis.

- The Local Authorities will seek the co-operation of the private waste sector in developing Recycling Parks for C&I waste generated in the Region (Table 18.3).

**Table 18.3 Proposed Recycling Facilities for SME's and Business**

Summary of Recycling facilities proposed for SME's, Business
<ul style="list-style-type: none"> <li>• Drop-off point(s) for household hazardous waste</li> <li>• Drop-off point(s) for WEEE. (Including WEEE generated by Retailers (instead of delivery to household Recycling Centres)</li> <li>• Delivery point(s) for Green Waste from landscapers, business</li> <li>• Delivery point(s) for small scale C&amp;D waste and DIY waste</li> </ul>
<p>Separate drop-off points may be provided, or alternatively a Recycling Park concept may be developed. These facilities may be advanced through Public Private Partnership. Private sector initiatives will be encouraged.</p>

### 18.5.4 Hospital Waste

Hospitals are among the major waste producers in the region, and hospitals in the Dublin Region are encouraged to achieve best practice in waste management, including both risk-waste and non-risk waste. The recommendations of the Comptroller & Auditor General Report "Waste Management in Hospitals" (March 2005) should be implemented by all hospitals whether public or private, including the preparation of individual hospital waste management plans.

## 18.6 MATERIALS RECOVERY CAPACITY/WASTE TRANSFER

Further increases in capacity to accept, sort and process recyclable waste is required in the Region.

- Dublin City Council is developing a MRF for household waste at Ballymount in Dublin 12 on behalf of the Region. This facility will have capacity to sort and treat municipal household waste with the capacity of approximately 100,000 tonnes per annum. The development of further MRF capacity by the private waste management industry is encouraged by the Plan. The potential also exists to develop a MRF at Ballyogan Recycling Park, e.g. for commercial/ industrial waste.
- It is an objective for Fingal County Council to develop a waste transfer / compaction facility (65,000 tonnes/annum) at Kilshane Cross (alongside proposed biological treatment, C&D waste recycling, and sludge drying) in order to accept municipal waste for onward transfer to energy recovery or disposal facilities.

## 18.7 BIOLOGICAL TREATMENT CAPACITY

The Dublin Region requires a substantial increase in the capacity to manage organic waste.

### 18.7.1 Biowaste Treatment Facilities

The Dublin Local Authorities will develop two biowaste composting plants to treat source-separated organic municipal waste.

- A biological treatment plant will be located in the Ballyogan Recycling Park, with a capacity of up to 45,000 tonnes/annum. Statutory approval (planning and waste licence) is already in place for a composting facility. Procurement of an operator for the facility is underway. The facility is being developed by Dun Laoghaire Rathdown County Council on behalf of the four Local Authorities.
- A second biological treatment facility will be developed to serve the northern catchment, again with a capacity of up to 45,000 tonnes/annum. A preferred location at Kilshane has been selected, as part of an integrated waste management facility. Procurement and preparation of an EIS for the proposed development are commencing in 2005. Fingal County Council is developing this facility on behalf of the four Local Authorities.
- In addition to the above, additional capacity to manage commercial/ industrial organic waste is required. A capacity range of up to 50,000 – 100,000 tonnes per annum is recommended. It is envisaged that this be developed by the private waste sector.

### 18.7.2 Green Waste Capacity

Green Waste facilities are required for garden and landscaping waste, a long-term capacity of up to 50,000 – 80,000 tonnes/annum is required. The Local Authority will consider developing this capacity alongside existing or proposed facilities. Development of capacity in the private sector is also encouraged.

South Dublin County Council operates a green waste facility at Esker Lane. A proposed green waste composting facility at Ballyogan Recycling Park will not now proceed. Green waste will be co-treated at the Ballyogan biowaste facility, and the additional space may be used for compost storage/ maturation.

The development of reception facilities for green waste (involving acceptance and transfer) is required. This capacity may be developed alongside, or as part of, Recycling Centres.

The Local Authority strategy for managing green waste in the region is summarised as follows:

### **Prevention/Minimisation**

Home composting is the preferred method of dealing with green waste at household level, and will be supported by the local authorities. Opportunities to compost green waste at apartments or commercial complexes can be considered by the landscaping contractor in appropriate circumstances. Use of wood- and green waste-chippers by people with large gardens to be considered by the Local Authority staff and recommended where appropriate to reduce the need for transport and central composting.

### **Collection**

Delivery points will be provided for drop-off of household green waste by householders. Not all Recycling Centres will be able for practical reasons to accept green waste, but it is intended to provide a wide coverage in order to discourage the placing of green waste in the household black bins. From the Recycling Centres, green waste will be transferred to local shredding/ transfer facilities. This will be carried out on a frequent basis to avoid generation of any nuisances at Recycling Centres.

### **Transfer**

Shredding and/or Transfer facilities will be developed by the Local Authorities, it is proposed that two facilities be operational by the end 2005 and four facilities by end 2006. These will accept green waste from householders and from landscapers. Waste will be shredded or bulked and loaded onto trailers for onward transfer to composting facilities. Locations currently identified as potential sites for reception/ shredding/ bulking/ transfer include:

- Balleally landfill (Fingal) Expected to open in October 2005
- Esker Lane (South Dublin) Operational for waste reception
- Ballyogan Recycling Park or Landfill (Dun Laoghaire Rathdown) As part of new biological treatment proposals, acceptance and shredding will be possible (2007).
- L'Abre Park, Ballyfermot (Dublin City Council) Currently going through planning

Other sites will be considered in order to have a sufficient network of sites to serve the region (refer to Table 18.2 and Appendix H which lists current options). This will reduce the need for transfer of bulk green waste. Charges at these facilities will reflect the cost of the service.

The local authorities will be supportive of the development of private sector facilities for the reception and shredding/ compaction and transfer of green waste.

### **Green Waste Composting**

The current deficit in capacity will be addressed in the short term by accessing composting facilities including outside the Dublin Region. Other treatment options that will be pursued include:

- Ballyogan/ Kilshane Biowaste Facilities – a certain amount of green waste is expected to be used in the composting of household biowaste. Shredding / transfer capacity may also be developed at these locations if required.
- Using green waste composting facilities in other regions –e.g. Counties Kildare, Meath, Wicklow

### **Use of Green Waste Compost**

Given that green waste in Dublin has been demonstrated to produce clean, high grade compost, it is intended to maximise the quality and end-use options for the material, ideally achieving commercial applications and reducing the need for use of compost from non-renewable sources.

## 18.8 ENERGY RECOVERY

Developing capacity to recover energy from the residual waste of the Region is a critical element of this Plan. This is required to meet obligations under the EU Landfill Directive, the Draft National Biodegradable waste Strategy, and the long-term targets of the Dublin Waste Plan. The Local Authorities will:

- Develop a Waste to Energy (Incineration) plant at the preferred location on Poolbeg Peninsula, Dublin 4. This will have a capacity of approximately 400,000 to 600,000 tonnes/annum, and will treat non-hazardous municipal or similar waste.
- The Dublin Local Authorities are receptive to the inclusion of a Monitoring Committee being put in place to represent the public interest as regards the operation of the WTE facility. Such a group could include the local community, objective national experts, and environmentalists.

Following appointment of a service provider to enter into public-private partnership with Dublin City Council (acting on behalf of the four Dublin Local Authorities) in 2005, the Statutory processes will commence. Energy Recovery at the facility will be achieved by generation of electricity which will feed into the National Grid. In addition, the possibility of recovering further energy in the form of heat, utilising a district heating network, is being explored by Dublin City Council. The Poolbeg Waste to Energy Plant will potentially heat 30,000 homes and provide electricity through the National Grid for 42,000 homes.

In terms of global warming impacts (emission of Carbon Dioxide) from the facility, it should be noted that an assessment of global warming impacts was included in the Dublin Waste Strategy (1997). Strategies including WTE are beneficial in reducing emissions of methane from landfills and in displacing energy from fossil fuels (oil, coal, gas) at other power plants. WTE is supported by the National Climate Change Strategy as one of the means by which the waste sector can reduce its overall greenhouse gas emissions

## 18.9 LANDFILL DISPOSAL CAPACITY

A critical shortage of municipal landfill capacity is imminent with the closure of Ballyogan Landfill in 2005, Arthurstown Landfill at end 2007, and Balleally landfill in 2008 approximately. Urgent delivery of the proposed Fingal landfill is required to replace these facilities and provide adequate safe disposal capacity for residual waste in accordance with this Plan. Even with the diversion of waste from landfill to the Dublin WTE facility there will remain a significant requirement for residual landfill disposal.



- It is an objective of this Plan to provide a landfill (of up to 10 million tonne capacity) in accordance with the Dublin Landfill Siting Study 2004. Fingal County Council is currently carrying out an EIS for the preferred site at Nevitt.
- Additional waste management infrastructure may also be developed at the site (e.g. composting, C&D waste recycling, civic recycling centre).
- It is an objective to provide for the use of other available landfills within the greater Dublin Region in the event of lack of capacity within the Dublin Region, however changes to Planning or Licensing status at these facilities should be of a short term and limited nature, linking with delivery of the integrated regional infrastructure – including the WTE capacity - so as not to erode the long term objectives of the Dublin Waste Policy.



There may be a short term requirement for additional disposal capacity in the Greater Dublin Area after 2007, in particular to accommodate household and commercial/industrial waste, at least until such time as the Dublin Waste To Energy plant and the proposed Fingal Landfill are in operation, refer to Table 18.4. It is important that in meeting this possible short term requirement, the overall regional policy, which is to minimise landfill and to manage Dublin's waste as close as possible to the source of generation, is not compromised.

The preferred approach to manage this short-term waste disposal requirement is by:

- Developing an additional short term extension to the Arthurstown Landfill in County Kildare subject to appropriate approvals.
- Maximising the use of available disposal (or energy recovery) facilities in the Greater Dublin Area, i.e. counties Kildare, Meath and Wicklow if feasible
- Seek options for disposal capacity in other Regions if necessary.

**Table 18.4 Expected Landfill Demand for Waste Generated in the Dublin Region (Generalised Assumptions and Data)**

Waste Stream	Period	2005-2007	2008-2009	2010 – onward
	<i>Rationale:</i>	<i>Maximise use of existing landfill facilities</i>	<i>New Regional Landfill open in Fingal. Biological Treatment in place.</i>	<i>Dublin WTE facility operational – will reduce landfill demand</i>
Local Authority wastes : Household, Commercial & other	Capacity Location	400,000 – 500,000 tpa Arthurstown, Balleally, Ballyogan	350,000 – 450,000 tpa Proposed new Fingal Landfill and Arthurstown extension	50,000 - 150,000 tpa Proposed new Fingal Landfill
Commercial/ Industrial wastes	Capacity Location	250,000 – 350,000 tpa Balleally, KTK landfill, other private landfills and Additional Private-sector C/I landfill	300,000 – 400,000 tpa Balleally (2008) Additional Private-sector C/I landfill or WTE, and proposed new Fingal Landfill	100,000 – 200,000 tpa Proposed new Fingal Landfill or private sector C/I landfill or WTE

\* Should recycling not prove possible

## 18.10 POLICY ON SELF RELIANCE

- The Dublin Region will aim to become self-reliant in terms of waste management infrastructure: waste generated in Dublin should be managed in Dublin as far as possible.
- The Local Authorities will aim to provide (either directly or in partnership with the private sector) an integrated network of facilities to cater for household and commercial waste they collect and manage. An integrated and adequate network of facilities is also required to deal with industrial waste and C&D wastes.

## 18.11 POLICY ON INTER-REGIONAL WASTE MOVEMENT

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 of Environment, Heritage and Local Government on 3rd May 2005 under Section 60 of the Waste Management Act, 1996 (as amended) with respect to the movement of waste.

The Dublin Region lies within the Greater Dublin Area for the purpose of spatial and strategic planning. The Dublin Local Authorities are supportive of co-operation with neighbouring Local Authorities to enable efficient development of infrastructural capacity for waste management.

Regional co-operation is already in place by means of waste movement and transfer between Dublin and other Regions. For example, household waste from Kildare, Meath and Wicklow is currently baled in Dublin for disposal at Arthurstown landfill, while other waste streams such as C&D waste and green waste arising in Dublin are managed in these counties. Some private waste companies based in Dublin already operate in various other Regions; movement of waste to and from Regions, in particular for recycling and recovery, is an acceptable practice as long as this is done within the rules set by waste regulation. The EU principle of free movement of goods throughout the EU applies to waste for recovery and will be respected by the Plan.

- The Dublin Local Authorities will be receptive to treating waste from other counties where it is in accordance with their Waste Management Plans, where the other counties express a requirement e.g. for biological or thermal treatment or landfill disposal, and where capacity can be made available or developed.
- It is expected that there will continue to be a need to treat waste arising in Dublin in the counties of the GDA, in particular for materials such as C&D waste, Green Waste – which require access to greater land availability and remote sites - and in the short term municipal waste for disposal.
- Where infrastructure deficits arise in the Dublin Region, facilities in other Regions with spare capacity should be employed until this deficit is corrected and if required in accordance with this Plan.

## 18.12 POLICY ON COST RECOVERY

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

- Continuing to employ, adjust and introduce user fees for waste services and facilities provided and to use the income from these fees to finance measures taken by the Dublin Local Authorities in accordance with the objectives of this Plan
- Increasing cost recovery for functions such as regulation and enforcement
- 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.
- Aiming to achieve efficient cost effective facilities for collection, recycling, energy recovery and disposal
- Benefiting from grant assistance from the Government's Environment Fund for appropriate schemes or other grant assistance that may become available from national or EU sources.
- 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 to pay the costs for providing these services to the local authorities.
- Using appropriate economic instruments to achieve sustainable waste management.

- The Dublin Local Authorities are supportive of the introduction of a National Waiver Scheme administered by the Department of Social and Family Affairs. It is hoped to maintain consistency with the concept of use-related charging with any eventual agreed system.

### 18.13 PRODUCER RESPONSIBILITY POLICIES

The Plan aims to drive forward implementation of Producer Responsibility in the region, whereby producers and suppliers play a greater role in preventing, minimising and recycling wastes and share the burden more fairly with the end-user of the product. As well as Packaging, areas where greater producer responsibility will be sought – in conjunction with Government policies – include

- Newspapers and magazines
- Junk Mail
- Telephone Directories
- Waste Electrical and Electronic Equipment
- Waste Tyres
- Batteries
- Paints
- Medicines
- Other household hazardous wastes.

**Objective:** To engage industry to participate in the development of awareness, prevention and collection systems in support of Local Authorities. Schemes such as 'take-back' and 'return through the supply chain' for materials listed above to be implemented during the Plan period.

### 18.14 REPROCESSING AND RECYCLING CAPACITY

The Dublin Local Authorities recognise the deficit in capacity to reprocess and recycle waste in Ireland, and will support the development of national scale recycling facilities in the Dublin Region.

- The Local Authorities will also support efforts to develop local recycling projects and resource recovery parks including assistance with waste streams and locations where possible.
- The Local Authorities will work in cooperation with the National Market Development Group established by the DoEHLG in order to develop local sustainable end uses for recycled materials.

### 18.15 DIRECTING WASTE TO MEET PLAN OBJECTIVES

This Waste Management Plan follows the principle of the EU Waste Hierarchy, and therefore sets ambitious targets for recycling and recovery of waste, and aims to dramatically reduce landfilling. To enable this to happen, an expansion of capacity to recycle dry recyclables and organic waste and capacity to recover energy from residual waste is underway. The Local Authorities need to ensure that the Plan objectives are met and that waste when privately collected is delivered to the form of treatment intended in this Plan.

- The Dublin Local Authorities will if necessary and/or appropriate for environmental reasons, direct that certain waste streams must be delivered to a certain tier in the waste hierarchy (e.g. reuse, recycling, biological treatment, energy recovery). This will be achieved by means of the Waste Collection Permit system or other appropriate regulatory or enforcement measures.

## 18.16 SUMMARY OF INFRASTRUCTURE REQUIREMENTS

Table 18.5 below summarises the proposed infrastructure requirements and whether it is currently envisaged that these may be developed by the public sector (Local Authorities), private sector or through a public-private partnership. The list in this Plan is not exhaustive and the Local Authorities shall be entitled to develop more or less facilities as appropriate. **Map 12** shows the location of the main infrastructure proposed by the Local Authorities under this Plan. Some future-proofing of the capacity of facilities beyond the tonnage set out in Table 18.5, in terms of reuse, recycling and recovery facilities, including C&D waste facilities, is acceptable under the Plan to provide for operational flexibility.







## 18.17 INFRASTRUCTURE SITING

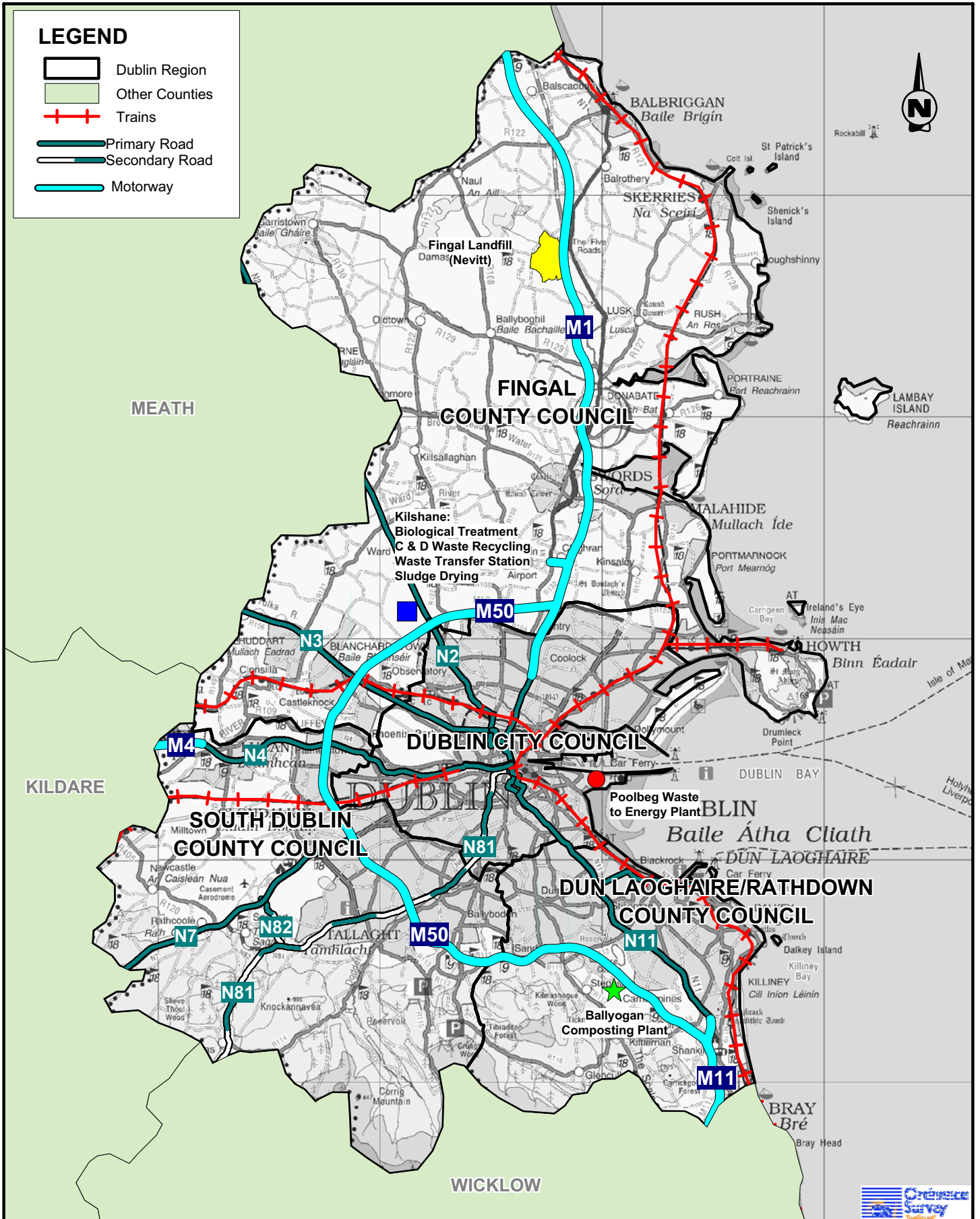
Where preferred locations for facilities that have been identified in the Plan for a particular purpose are subsequently determined to be unsuitable, the Dublin Local Authorities may select another preferred site, with reference to existing siting studies where relevant. Guidelines for Siting of Infrastructure are included in Appendix I.

Table 18.5 Proposed Infrastructure Requirements

Facility Type	Regional Capacity Required (t/a)	Public	Private	PPP	Comment
Reuse/ Repair Centres (Resource Recovery Park concept)	Not Known	<b>Lead</b>	Possible	Possible	LAs expected to lead implementation, possibly in partnership with voluntary &/or private sector.
Bring Banks	111 additional, plus upgrades	<b>Lead</b>	Possible	Possible	LAs will lead implementation, but private collectors and property developers may also be required to provide bring banks
Recycling Centres	6-9 Additional, plus upgrades	<b>Lead</b>	Possible	Possible	Each LA to develop and upgrade existing, as per Table 18.2 Private proposals and PPP options will also be considered
Green Waste Composting	50,000 - 80,000	Possible	<b>Lead</b>	Possible	Private sector expected to lead development of green waste composting, PPP options will be considered.
MRF (Household)	100,000	<b>Lead</b>	Possible	Possible	LA facility at Ballymount will provide significant capacity. Private proposals or PPP options will also be considered
MRF (Commercial)	Not determined	-	<b>Lead</b>	Possible	Private sector manages majority of C&I waste and is expected to continue to expand MRF capacity. PPP options may be considered.
Waste Transfer Station	65,000 (hh) Not known (C&I)	<b>Lead</b> (hh)	<b>Lead</b> (C & I)	Possible	Fingal Co Co proposes a transfer facility as part of the Kilshane development. For C&I waste, private sector may develop additional capacity.
Biowaste Composting (household)	2 facilities * 45,000 each	<b>Lead</b>	Possible	Possible	LAs are developing facilities at Ballyogan and Kilshane. Additional private sector capacity, or PPP proposals, would be considered.
Biowaste Composting (commercial)	50,000 - 100,000 tpa	-	<b>Lead</b>	Possible	Private sector manages majority of C&I waste and is expected to develop biowaste capacity. Procurement of facilities at Ballyogan & Kilshane may allow PPP options to accept some C&I waste at these facilities.
WTE facility	400,000 – 600,000	<b>Lead</b>	-	<b>yes</b>	Procurement of Dublin WTE facility underway by LAs, will be delivered via PPP contract.
Municipal Landfill (long term)	500,000	<b>Lead</b>	-	Possible	Proposed new Fingal Landfill is being advanced by LAs, may be delivered via PPP contract
Hazardous Waste Landfill Cell	Not Known	<b>Lead</b>	Possible	Possible	Required by EPA National Hazardous Waste Plan. LAs will lead by means of feasibility study, but not known whether facility will be developed by public, private or PPP at this stage
Construction/ Demolition Recycling	4,000,000 Materials recovery plus soil beneficial use projects	Possible	<b>Lead</b>	Possible	Development of C&D recycling facilities is encouraged and private sector expected to lead this. PPP options will be considered. C&D recycling may form part of the Kilshane development by FCC
Car Dismantlers	Additional facilities	-	<b>Lead</b>	-	Private sector activity, authorised facilities are encouraged. DLRCC currently has no authorised facility
Liquid Waste disposal/ treatment	Not Known	-	<b>Lead</b>	-	Private sector activity, address current deficit (grease trap, interceptor sludge, oil etc)
National Recycling Facilities	Large capacity	-	Lead	Possible	Encourage indigenous recycling capacity. Private sector is expected to develop such facilities based on market demand. LAs open to consider PPP proposals.

**LEGEND**

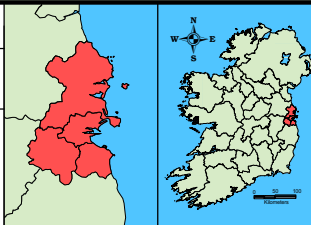
-  Dublin Region
-  Other Counties
-  Trains
-  Primary Road
-  Secondary Road
-  Motorway



Project **Dublin Waste Plan**

Figure **Map 12**

Title **Dublin Region - Proposed Waste Facilities**



Issue Details	
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## 19 POLICIES AND OBJECTIVES FOR OTHER WASTE STREAMS

### 19.1 HAZARDOUS WASTE FROM HOUSEHOLDS AND SMALL BUSINESS

*-batteries – paints – medicines – fluorescent tubes – etc*

It is the policy of this Plan to improve the management of Household Hazardous Waste (HHW) in the Region, by providing appropriate information and facilities to the public. The Dublin Local Authorities will seek greater levels of *producer responsibility* for managing these wastes. The following objectives are set out:

#### Household Level

- The Local Authority will provide information and advice to the public and business about what wastes are hazardous, how to prevent/ minimise these, how to separate and what services should be used to properly manage them. This will be co-ordinated with programmes at national level (by DEHLG, EPA).
- The Local Authority will provide facilities for householders to drop-off HHW at Recycling Centres, which will require an upgrading of existing facilities and staff training. Mobile collection services, and other novel approaches such as once-off collection events, may also be undertaken. The use of bring systems will be explored for items such as batteries.
- Mobile Hazardous waste collection services to be scaled back when sufficient fixed sites are in operation.
- The Local Authorities will consider employing a purpose made container for collection of household hazardous waste which is capable of being transported to sites around the Region, providing a good level of public accessibility at a reasonable cost. See picture below.



#### Small Business

The National Hazardous Waste Management Plan requires Local Authorities to assist this sector in managing what small quantities of hazardous waste produced. Recycling centres in the Dublin Region are designed for household waste only; therefore alternative systems need to be developed. One option is the development of a central drop-off point, possibly in conjunction with the private sector (through a 'Recycling Park'), to be operated on a cost-recovery basis.

- The Local Authorities will consider setting up a drop-off point or points for HHW generated by small scale businesses. Such facilities may also be provided by private waste companies by developing C & I Recycling Parks
- The waste collection industry will be required to advise customers on good practice and provide facilities to separately collect and manage hazardous waste and ensuring HHW is not mixed with municipal waste.

### Producer Responsibility

- The Local Authorities will encourage industry to participate in managing the waste from the products they put on the market. This should support prevention/ minimisation, reuse and recycling opportunities and responsible disposal practices. Opportunities for pilot projects to manage materials such as paints, batteries, and medicines will be explored.

## 19.2 CONSTRUCTION/DEMOLITION WASTE

The objective of this Plan is to achieve more sustainable waste management practices in the construction and demolition sector. Underlying goals are to minimise and prevent waste (and hazardous waste), to achieve greater levels of re-use and recycling, and to minimise disposal and transportation. This requires action by not just the Local Authorities but also the construction industry, and the waste management industry.

### The Construction Industry is required to:

- Encourage prevention and minimisation of waste at design stage by architects, surveyors, engineers and planners.
- Implement good on site management of waste, including minimisation of waste, separation of hazardous wastes, and separation of recyclable materials such as packaging, timber, metal, concrete etc.
- Implement the National Construction Demolition Waste Council voluntary initiative which requires 'C&D Waste Plans' to be submitted for approval at planning stage for relevant developments.
- (In Demolition work), to employ best practice in selective demolition to maximise recovery of materials and separation of hazardous wastes. Where appropriate on-site recycling should be included in the C&D waste plan for the project.
- Develop the markets for recycled C&D wastes
- Comply with the waste management requirements in the City/County Development Plan

### Waste Collection Companies are required to:

- Provide separate collection opportunities for recyclable wastes generated in construction/ demolition, employing suitably labelled or coded bins and skips
- To implement preferential charging for source-separated material in preference to mixed waste disposal

### The Local Authorities will:

- Implement the C&D waste planning requirements of the NCDWC initiative, including assessment of C&D waste plans and the monitoring of site activities
- Regulation of the collection and management of C&D waste to achieve the Plan objectives (employing Bye-Laws and Collection Permits and the Development Plans as tools)
- Work to develop markets for recycled C&D waste in their own projects
- Work to improve data and understanding of C&D waste arisings, composition and recycling rate etc.



## C&D Waste Infrastructure Requirements

The following are the objectives of the Plan

- Provision of additional C&D Waste Recycling Facilities in the Region for recycling of C&D waste – including separation of materials, and crushing/ grading of rubble for re-use as aggregate.
- Fingal County Council propose to establish a C&D waste recycling facility at Kilshane Cross as part of an integrated recycling facility
- Provision of facilities to cater for delivery of C&D waste by small-scale producers.
- Additional facilities in the Greater Dublin Region to cater for C&D waste, at existing quarries and other suitable locations – these should include front-end removal & recycling of recoverable waste, and limited to disposal of non-recoverable waste (soil) only.
- Use of soil material for beneficial use where possible, in preference to disposal. Examples of beneficial use include: landfill restoration, amenity projects (parks, golf courses), quarry reinstatement, major reclamation/ infill projects that have been approved in planning.
- Restriction on the placing of C&D waste in Permitted sites on agricultural land, in favour of full processing. The only material that will be considered is clean soil, and only where alternative larger authorised facilities are not already in place. The full cost of regulation will be recovered by the Local Authority.
- Promote the use of large construction sites as suitable locations for temporary recycling facilities for the duration of site works.

## 19.3 WEEE

The Dublin Region will work to fully implement the WEEE Directive, as detailed in the forthcoming Regulations under the Waste Management Act. This will require co-operation and action by the producers, retailers and the Local Authority. The following are the objectives of this Plan for the various parties.

**Producers** (manufacturers and importers), if operating as part of a collective responsibility company, will be required to:

- Implement Awareness, Record Keeping, and Reporting
- Collect the WEEE from Local Authority facilities on demand
- Manage the recycling and recovery of WEEE in accordance with the regulations

Other obligations will be placed on self-compliant Producers, the details will be made clear in forthcoming legislation.

The **Retailers** will be required to

- Register with the Local Authority under the WEEE Regulations
- Take-back WEEE in an old-for-new system from the public when new purchases are made
- Properly manage WEEE and make it available for collection as set out in the Regulations.

The **Local Authority** role in relation to WEEE will be:

- Assist in public information and awareness about proper management
- 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 sites.

- Enforce the forthcoming Regulations including regulating/ enforcing self compliant companies, registering retailers, and other functions as may be specified
- Carry out data collection and reporting of WEEE performance in the Region

There is a recommendation (WEEE Task Force Report, April 2004) that in Ireland retailers will be able to deliver WEEE to Local Authority recycling centres. However, the Recycling Centres in the Dublin Region are designed for household waste only and current capacity is very limited. An alternative solution is therefore required as follows:

- The Dublin Local Authorities will seek to establish an alternative delivery point or points to cater for WEEE generated by retailers in the Region. (Facilities are already in place at Kylemore Park South (DCC) and Cookstown Industrial Estate (SDCC)).

Local Authorities will also consider more novel approaches to collection including use of bring banks for small WEEE items and other initiatives such as once-off collection events.

## 19.4 END OF LIFE VEHICLES

The EU End of Life Vehicle Directive (2002/53/EC) will improve the life-cycle management of cars and vans, by requiring improved waste prevention and recovery of scrap vehicle. The Dublin Local Authorities will implement their obligations under the Directive as may be set out in any forthcoming Irish regulations. Currently each Local Authority is involved in managing scrap vehicles but this requirement is expected to fall off once the Directive is implemented in Ireland, since free return of the vehicle to a registered dismantler or shredder is one of the basic conditions.

There are 3 areas, in ensuring the full implementation of the Directive, that have implications for the Local Authorities – Collection, Regulation/Enforcement and Statistics/Reporting.

### Collection

The permitted 12 dismantlers in place already could potentially serve this purpose if compliant with the Directive technical requirements. DLRCC is not served by any permitted facility at present, but other Local Authorities are reasonably well served.

The Local Authorities may have to continue to deal with any abandoned / burnt-out vehicles. It is an objective to recover the cost from the manufacturers for the Local Authority in ELV management.

### Regulation/Enforcement

The main responsibilities of the Local Authorities will be in regulating the different aspects of the Directive, i.e. monitoring the permitted facilities, and ensuring the collectors of the ELVs adhere to the proper regulations.

- Permitted facilities will be regulated to ensure that the storage/treatment facilities, data collection etc. of the dismantlers/shredders comply with the requirements
- Collectors will be required to have the necessary collection permits and adhere to the relevant regulations.

Current regulation and enforcement measures will ensure unregulated scrap-yards are brought into line and that only permitted facilities and permitted collectors are handling ELVs in the Region.

### Statistics/Reporting


The onus will be on the Local Authorities to collect data from the collectors/dismantler and shredders to ensure accurate records are kept. The figures for the cars collected should tally with those being received at shredding facilities. The treatment of the Auto Shredder Residue will also be detailed and recorded by the Local Authorities.

## **19.5 PACKAGING WASTE**

The Local Authorities in conjunction with Repak will implement the targets set out in the European Parliament and Council Directive 94/62/EC (1994), as amended in February 2004.. There will also be a focus on prevention and reuse of packaging as set in Articles 4 and 5 respectively. The Local Authorities will also investigate and facilitate producer responsibility initiatives with industry in the Region. Further details are provided in Chapter 9. Policies for funding separate collection, and recycling of packaging for household and commercial waste have been set out above in Section 18.12 (Cost Recovery). Improving regulation and enforcement, including for packaging companies, is detailed in the Implementation section.

The following recommendations in Table 19.1 are actions needed to improve the management of packaging waste in Ireland, drawn up based on the widespread public feedback on the issue of packaging during development of this Plan. These are aimed at the companies who produce packaging and place it on the market in Ireland (including both indigenous producers and importers). The responsibility for ensuring these actions are initiated can not fall solely on the Local Authorities as many issues are not under their control, therefore it will require commitment from commerce, the packaging industry and the Government.

Table 19.1 Key Action Areas for the Packaging Industry

Key Action Area	Action Required
Packaging Labelling	A programme of labelling of all plastics needs to be developed that is consistent for packaging produced inside and outside of Ireland.
Packaging Design	<p>The packaging industry with support from Repak must research best practice for reducing packaging. Examples of how this might be achieved include:</p> <ul style="list-style-type: none"> <li>• Develop and implement industry training to ensure that all packaging companies are provided with the capacity to adopt waste minimisation practices including; cleaner production, sustainable design, labelling, and recyclability.</li> <li>• Develop a network where waste minimisation ideas and innovations can be exchanged making it easy for good ideas to be adopted.</li> <li>• Packaging designs that make recycling complex and expensive e.g. pvc sleeves on drink bottles to be discouraged.</li> </ul>
Education/Awareness	<p>The public need to be made aware of any packaging labelling system, there must be a consistent message (in all print media, Recycling Centres, Bring Banks etc) on what plastics can and cannot be recycled. The plastic resin code (plastics 1-7) used by manufactures to identify the plastic type should be printed on the base of all plastic bottles and containers. e.g. all PET and HDPE plastics respectively will have the following symbol on their bases.</p>  <p>This is a very simple way for the public to identify what plastics can be recycled and avoid confusion.</p>
Packaging Materials	<p>In general, packaging should be made from materials that can be recycled in practice by consumers. For example:</p> <ul style="list-style-type: none"> <li>• The number of materials and composites used in packaging must be reduced</li> <li>• Simplifying the range of packaging materials to enable more effective identification and separation by consumers</li> <li>• Setting targets for percentage of biodegradable content etc.</li> </ul>
Product Stewardship/End Market Development	<p>Packaging producers are required to take more responsibility for items of packaging after they have been used by consumers.</p> <p>Through Repak opportunities and assistance to encourage product stewardship and extended producer responsibility initiatives are essential.</p> <p>Packaging companies shall assist in developing end markets for recovered materials and to develop closed-loop recycling solutions.</p>

## 19.6 POLICY FOR BIODEGRADABLE WASTE

The Dublin Local Authorities will implement the recommendations of the Draft National Biodegradable Waste Strategy, and thereby fulfil the Region's role in meeting National targets under the EU Landfill Directive. This will be carried out by:

- Including prevention and minimisation of biodegradable waste in its prevention programme (including the promotion of home composting)
- Separately collecting biodegradable waste from household and commerce/industry:

- Green waste to be collected at appropriate Recycling Centres for onward transfer to green waste composting
- Household and commercial food and garden waste for biological treatment and making high quality compost
- Household and commercial dry recyclables such as paper, cardboard and textiles for recycling
- Developing energy recovery capacity at the Dublin Waste to Energy facility to treat any residual biodegradable waste

The Plan has already set out the policies to achieve the above. Compliance with the targets of the Draft National Strategy is set out in Table 19.2 below. The Dublin Local Authorities will also require all waste collection companies to implement the colour coding recommendations of the Draft Strategy for waste collection, as summarised in Figure 19.1.

**Figure 19.1 National Colour Coding for Waste Collection Containers (left), and for Dublin Colour Coding for Waste Collection Containers (right)**

Material	Colour
Paper	Blue
Packaging /Dry Recyclables	Green
Food & Garden Biowaste	Brown
Plastics	Yellow
Residual (Mixed) Waste	Black/ Dark Grey
Household Haz. Waste	Red

Material	Colour
Packaging/Dry Recyclables incl. Paper	Green
Residual (mixed) Waste	Black/Dark Grey
Food and Garden Waste Biowaste	Brown

- Where waste contractors are introducing services to customers they are required to employ the colour coding set out above.

**Table 19.2 Compliance with Indicative Target Capacity of the Draft National Strategy for Biodegradable Waste**

Region (all tonnes/ annum)	Diversion Target	Recycled BMW	Biological Treatment of BMW	Residual BMW
Strategy Target Nationally	1,772,551	706,082	351,539	641,681
Dublin Target in Strategy	584,942	233,007	116,008	211,755
Comment on how this will be achieved in the Plan		<p>Additional Capacity for recovery of household and commercial dry recyclables is planned.</p> <p>Additional household capacity will be provided at Ballymount MRF.(100,000 tpa)</p> <p>Private sector capacity for C/I waste is already well developed and further capacity is enabled by this Plan</p>	<p>Capacity of c. 90,000 tonnes to be provided at Ballyogan &amp; Kilshane facilities</p> <p>Additional biological treatment of green waste outside region (50 - 100 Ktpa)</p> <p>Private sector facilities for biological treatment of organic waste from C/I facilities is also encouraged (50 – 100 Ktpa)</p>	<p>Dublin WTE facility will have a total capacity of 400- 600 Ktpa, which will provide adequate BMW diversion capacity to meet the above target</p>

## 19.7 POLICY ON FORMER WASTE DISPOSAL SITES

A Policy Direction was issued by the Minister of Environment, Heritage and Local Government on 3rd 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. The EPA will be preparing a Code of Practice for assessing the risk presented by such sites.

The Local Authorities will have regard to Article 22(7)(h) of the Waste Management Act, 1996, the Section 60 guidance 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.

The Dublin Local Authorities have prepared a preliminary list of the former waste disposal/recovery sites previously operated in the Region, in accordance with Article 22(7)(h) of the Waste Management Act 1996. However this does not currently include all potential sites and the steps required to fully meet legislative requirements are set out below.

An updated approach to Risk Assessment at former waste disposal sites is being developed by the Environmental Protection Agency and this will be employed in the Dublin Region once available.

The Local Authorities will over the course of this Plan period adopt a more formal and consistent approach to the recording of waste disposal sites. This will be called the '**Waste Disposal Site Database for the Dublin Region**'.

A comprehensive map-based system will be developed for the Region. This will be developed using GIS whereby information available on a particular site is directly linked to the map. The database will include:

- Waste disposal sites identified in 1988 in Dublin County (and any equivalent data available in the City Council area). The text available on old sites is a good starting point for the database. More information can be added for the sites that have been investigated, monitored or remediated. As well as public sites listed in Table 12.3 the database will include information available on private sites to the extent possible.
- Sites subsequently identified by the Local Authorities as waste disposal sites (including private sites). (Period 1988 – 1997)
- Unauthorised Sites found to be operating outside the waste licensing or waste permitting system in the period since 1997 (when waste licensing was introduced).
- Authorised sites (those with waste licenses or waste permits) will be included but on a different 'layer' of the map.

Information on each site will include as far as possible the following type of information:

*Landowner, Operator, Year Open, Year Closed, Type of Waste, Quantity of Waste, Capping, Summary Details of Investigation, Monitoring, Remediation, Restoration and a link to the relevant documentation available.*

As with any GIS system the information needs to be updated. A protocol will be agreed for ensuring that all Local Authorities maintain their part of the database consistently.

Close co-operation with the Planning Section within each Local Authority will be important when developing and updating the database.

It is an objective that when new developments are planned on or adjacent to any of these sites, the developer will be required to investigate any potential risks and appropriate remediation may be required prior to development.

The **Waste Disposal Site Database** will also be a key input into the process of developing a 'Section 26 Register' of hazardous waste sites, see Figure 19.2, and Table 20.3.

## 19.8 REGISTER OF FORMER HAZARDOUS WASTE DISPOSAL/RECOVERY SITES

### 19.8.1 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 waste disposal. A ranking system (A, B, C) can be applied to the sites following desktop assessment in order to prioritise whether they are likely to be significant or not. The flow chart Figure 19.2 (overleaf) summarises the methodology provided by the EPA.

Category A – High Priority Sites

Category B – Medium Priority Sites

Category C – Low Priority Sites

A number of steps need to be undertaken before sites are ranked into categories. The methodology is based on a 'risk assessment' approach. As well as former waste disposal sites, other potential generators of hazardous waste – e.g. tanneries, petroleum and gaswork sites – need to be considered. 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 Dublin Region is that to date no Section 26 Registers have been completed, although some preliminary risk assessment work in relation to former waste disposal sites has commenced.

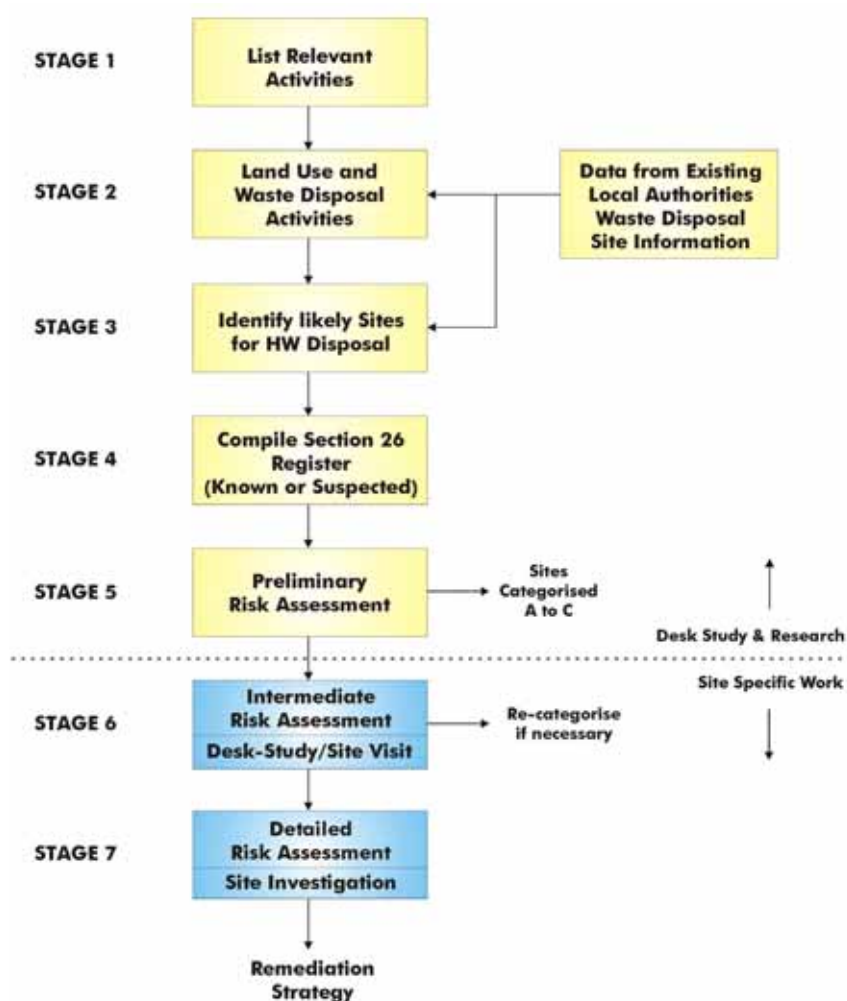
### 19.8.2 Policy for Development of Section 26 Register

The Dublin Local Authorities will develop a Section 26 Register as a matter of priority in response to the NHWMP and the 'risk assessment' methodology set out by the EPA or as amended in their Code of Practice (Section 60 Policy Guidance, issued 03/05/05), when published, is to be followed. The majority of work required for Stage 1 – Stage 5 is desktop work and requires sharing of resources and information by all departments of the Local Authorities, and use of other sources. The proposed 'Waste Disposal Site Database' will be a key input into the process. Work will commence with a view to making significant progress on the requirements of Section 26 during the lifetime of the Plan.

Following Stage 5, the Local Authorities will then prioritise which sites are of most importance and carry out investigations based on availability of resources. Further guidance may be available from the EPA at this stage to assist in the site-specific investigations.

It is intended that the cost of any on-site investigation, monitoring and remediation work should be borne by the 'the polluter'.

**Figure 19.2 Development of Section 26 Register**



## 19.9 POLICY ON HAZARDOUS WASTE DISPOSAL REQUIREMENT

The Dublin Local Authorities have no role in Planning for hazardous waste disposal. However, in Section 9.3 (p.89) of the 2001 National Hazardous Waste Management Plan, the EPA recommends the establishment of at least two engineered landfill disposal cells for hazardous waste, one of which should be in the 'Dublin area'.

- The Dublin Local Authorities will consider the feasibility of establishing a hazardous waste landfill cell in the Region.