

## 6. EXISTING WASTE MANAGEMENT ARRANGEMENTS

Waste collection in Ireland is changing rapidly, with private waste companies now playing an increasingly active role in providing services to both public and private sectors. The waste collection arrangements in the South East region are detailed in this section.

### 6.1. Collection of Household, Commercial and Industrial Waste

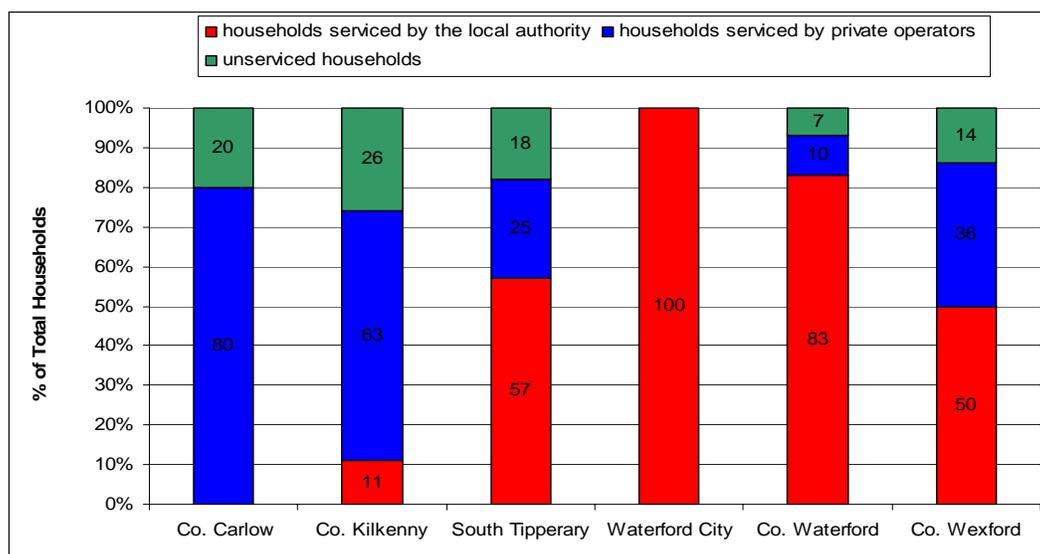
The local authorities are only involved in household waste collection, all other waste types are collected by private contractors.

The share of the household collection market is shown in Table 6.1. A description of the situation in each administrative area is included in this section. In general very poor data was supplied for the commercial and industrial sector in terms of segregated collection. Data is included where available.

**Table 6.1: Collection of Household Waste in the Region as reported in 2003**

	% of total household numbers serviced by		% of total household numbers unserved
	local authority	private contractor	
Carlow	0	80	20
Kilkenny <sup>Note 1</sup>	11	63	26
South Tipperary	57	25	18
Waterford City	100	0	0
Waterford County	83	10	7
Wexford	50	36	14

**Figure 6.1: Percentage of households serviced by local authority or private contractor collection and percentage of houses unserved in 2003**



### 6.1.1. County Carlow

16,720 t of household waste was collected from households by a collection service provider in 2003. Private waste contractors carry out all waste collection in the County. There is no source separation or segregation of waste prior to collection (single bin system). The largest waste collector operating in the County is Ray Whelan Ltd. According to waste returns all householders participate in a waste collection service. However for the purposes of waste planning, waste collection is assumed to have only 80% coverage.

### 6.1.2. County Kilkenny

13,697 t of household waste was collected by household collection service providers in Kilkenny in 2003. Household waste collection is provided by Kilkenny Urban District Council (KUDC) in their functional area (1, 949 t) and by private contractors (11,748 t) in the County. Both private contractors and KUDC have implemented a dry recyclable collection (2-bin system). Household waste is presented for collection in either 80 L, 120 L, 240 L wheelie bins or in clear plastic bags.

The largest private waste collector operating in the County is Martin Doherty. Other significant private collector's of household waste are AES, Rainbow Refuse, Seamus Kelly and Ray Whelan. The aforementioned private waste collectors together with KUDC service approximately 12,800 or 50% of all households in the County. It is estimated that 6,529 or 26% of households are not participating in a refuse collection service. There are 25,603 households in the County, there is no data for the remainder of the households.

Kilkenny County Council provides a collection service for hazardous household waste i.e. Chemcar<sup>®</sup> collection service. During 2004, the Chemcar<sup>®</sup> collection service visited the County on three occasions servicing collection points in Thomastown, Callen, Freshford, Urlingford and Newrath. There is a receptacle to collect household hazardous waste at Dunmore Recycling Centre. 10 t of household hazardous waste was collected in Kilkenny County in 2003.

Martin Doherty and AES collect the majority of commercial/industrial waste arisings.

### 6.1.3. South Tipperary

25,194 t of waste was collected by household collection service providers in South Tipperary in 2003. Both the public and private sectors provide household waste collection services. South Tipperary County Council, Clonmel, Carrick-on-Suir, Tipperary and Cashel Urban District Councils are all involved in household waste collection and service approximately 15,000 or 57% of householders. The major private waste contractors operating in the County are Mr. Binman and Walsh Waste. A two-bin collection service has been implemented on all public and privately operated collection routes. Private collectors service approximately 6,600 or 25% of householders. The remaining 4,810 or 18% of householders are assumed not to be participating in a weekly refuse collection. Household waste is presented for collection in either 240 L wheelie bins or in, clear plastic bags.

South Tipperary County Council provides a collection service for household hazardous waste i.e. Chemcar<sup>®</sup> collection. During 2004, the Chemcar<sup>®</sup> collection service visited the County on three occasions servicing Killinall, Tipperary Town, Carrick-on-Suir, Clonmel, Cashel and Cahir.

All commercial and industrial waste is collected by the private sector.

#### 6.1.4. Waterford City

Waterford County Council collects household waste within its functional area. Since 2003, a 3-bin collection system has been implemented. 100% of all households are reported to be participating in the collection service. 13,783 t of waste was collected by the local authority household collection service.

Private contractors collect all commercial and industrial waste arisings. The prominent private waste collectors are Onyx, Allinger, Greenstar and Waterford Utilities. A two-bin collection service is offered to all commercial waste producers.

#### 6.1.5. County Waterford

18,509 t of waste was collected in 2003 by the household service collection providers. Waterford County Council services 70% of households in the County and collected 12,987 t in 2003. Dungarvan Town Council serves an additional 13 % of households. A private waste collector collects approximately 10% of households (5,522 t). The remaining 1,300 or 7% of households are assumed not to be participating in a refuse collection service or do not have a service available to them. Waterford County Council has implemented a three-bin collection system and the private waste contractors are operating either a single or 2-bin collection system. Residual, dry recyclables and organic wastes are collected in wheelie bins with dry recyclables also being presented for collection in clear plastic bags.

All commercial and industrial waste is collected by private contractors namely, Onyx, Greenstar, O'Connell's with O'Donnelly and Samshire providing a dry collection service only.

Currently Waterford County Council provides for the collection of household hazardous waste at Tramore landfill and Lismore Recycling Centre. It is anticipated that the recycling centre operated at Dungarvan landfill will provide for the collection of household hazardous waste in the near future.

#### 6.1.6. County Wexford

35,569 t of waste was collected by the household collection service providers in Wexford in 2003. Both the public and private sectors collect household waste. All household waste collected by Wexford County Council is collected in 240 L, 140 L and 80 L wheelie bins. The private waste collector's use either a 240 litre wheelie bin or plastic bags. Wexford County Council and Wexford Borough Council, together, service approximately 19,000 or 50% of households (20,215 t in 2003) which are participating in a refuse collection service. Between 2002 and 2004, Wexford County Council and Wexford Borough Council rolled out a kerb-side dry recyclable collection to all customers.

Wexford County Council has a pilot weight based project in New Ross to investigate the viability of a 'pay by weight' system and how it compares with the 'pay by volume' system with its three different sized bins.

All 19,000 Wexford County Council refuse collection customers will change from dry-recyclable collection in bags to a wheelie bin collection early in 2006. 2,500 households have already changed to dry recyclable wheelie bin collection with no increase in contamination levels of the material.

Approximately 13,700 or 36% of the remaining households are serviced by the private sector. The private sector collected 15,354 t of household waste through its household collection services in 2003. The two most prominent waste operators are Greenstar serving the north of the County and SEWMAR Ltd. (Des Mernagh) who serves the south of the County. It is estimated that approximately 5,300 or 14% of households in the County do not participate in a refuse collection service. Since 2004, roll out of segregated collection by private contractors as begun, either with a 2 bin system or a bin and bag system.

Commercial and industrial waste collection is carried out by the private sector, all waste collected by the private sector is by separate collection.

## 6.2. Collection for Recovery

The extent of collection for recovery of the individual waste fractions in the region (2003) is described overleaf.

**Table 6.2: Collection of Individual Waste Fractions in the Region 2003**

Individual Waste Fraction Collection	Infrastructure Provider South East Region	
	Local Authority	Private Operator
Glass	✓	✓
Paper and cardboard	✓	✓
Drink cans	✓	✓
Other metals		✓
Plastic	✓	✓
Farm plastic		✓
Batteries	✓	✓
Textiles		✓
Waste Oil	✓	✓
UBCs	✓	✓

### 6.2.1. Glass

Glass is collected throughout the region from bring banks located at shopping centres, filling stations, dedicated bring centres and recycling centres. The main contractors are Rehab Recycling Partnership and South East Recycling Glass Collection. Under glass management programmes some commercial outlets such as public houses and restaurants, etc, have their glass collected privately.

The following companies collect commercial and industrial recyclable waste glass:

- Ray Whelan
- Rehab
- Inland Recycling
- Ipodec
- Waterford Utility Services
- Wexford Plant Hire (for South East Recycling)

The main operator of glass recycling in Ireland is Rehab Recycling Partnership.

Wexford County Council operates a scheme called the 'Life Recycling Network' for glass bottles, jars and drink cans. This scheme is operated at 106 of the bring sites in the county.

Three companies in Ireland reprocess container glass waste. One company creates glass fibre products while the other two companies manufacture glass containers. Other potential outlets for glass include industrial abrasives; glass wool products; construction aggregate; filtration media; landscaping and portland cement.

### 6.2.2. Paper and Cardboard

Paper and cardboard is collected at over twenty locations throughout the region. It is transported to Central Waste Limited (part of the Smurfit Group) in Dublin. Recycle 2000, a voluntary group based near Wexford town collects waste newspapers, mainly from County Wexford (25 bring sites) and shreds it for animal bedding. They collected 674 t in 2004.

Partnerships between local authorities and waste management/recovery companies organise collections of newsprint in Ireland. Paper and cardboard is collected from households through kerbside collection schemes. Paper and cardboard are accepted at recycling centres throughout the region. Paper is one of the largest waste streams of municipal solid waste. It is estimated that 30 companies are involved in the waste paper recovery industry in Ireland.

Commercial cardboard is banned by several local authorities from their landfills. There are a few kerbside collection schemes being run by a number of local authorities for commercial cardboard. There was one paper mill in Ireland, which accepted cardboard, however this ceased to accept cardboard in mid 2005. The 30 companies involved in the recovery of the cardboard supply this mill or mills abroad mainly in the UK, Spain and the Far East.

The collection rate of paper and cardboard in the UK has risen in the last four years but the proportion of recovered fibre in the paper and board consumed has remained the same. This is due to the increase in waste being exported from the UK rather than using UK mills.

New potential outlets for paper include insulation, moulded fibre packaging, building board and furniture.

### 6.2.3. Drink Cans

Drink cans are collected throughout the region at bring banks and by the household kerbside collection operated by the local authorities and private operators. The main operators for can recycling within the region are Rehab Recycling Partnership, South East Recycling and the Life Recycling Network. After collection, the cans are separated (into aluminium and steel), baled and exported to Alcan in the UK, for reprocessing.

Aluminium cans are totally recyclable, whereas steel cans must be processed to remove the tin content. Rusting, within the collection bins, further increases the cost of recycling steel cans. The economic value of steel cans is very low as compared with aluminium cans.

### 6.2.4. Other Metals

Scrap metal is collected by private contractors and is transferred to metal recycling companies around the country.

### 6.2.5. Plastic

The principal difficulty for the collection of plastics is the collection of economic quantities (by weight) of the material.

The EPA has reported that there are currently 22 companies in Ireland involved in the plastic recovery industry. 19 of these companies collect plastic, the remainder are involved in the reprocessing of the plastic. The majority of waste plastic however is exported to the UK, the Far East and mainland Europe.

The average mechanical (i.e. separation) recycling rate for plastics in the EU is 11.3%, the average energy recovery rate is 19.25%. The types of plastics recovered include: PET, LDPE, HDPE, PP, PVC, PS Hips, laminated plastics etc.

According to EU targets, 85% of end-of-life vehicles (ELV) have to be reused or recovered by 2006. To achieve this target there will have to be an increase in the ELV-derived plastics recovered.

Some potential new outlets for plastics include horticulture; building; agriculture; road safety; plumbing and drainage etc.

### 6.2.6. Farm Plastic

The Irish Farm Film producers group offers a free collection of silage bags, silage cover sheets and baled stretchwrap. The minimum quantity of plastic film that will be collected is 200kgs. Different coloured polythenes must be separated.

### 6.2.7. Waste Oil

Atlas Oil is the only company that operates a waste oil collection service in the region. Waste oil is collected from garages, one recycling centre and from various industries throughout the region. Waste oil collected is refined at a facility in Portlaoise.

### 6.2.8. Batteries

Atlas Environmental and Returnabatt collect batteries in the South East Region. Battery banks are located throughout the region, particularly in national schools. There are battery receptacles at a number of local authority recycling centres. The Chemcar<sup>®</sup> collects waste batteries. The batteries are exported to the UK and Europe for recycling.

The European Commission issued a proposed Directive in November 2003<sup>ref</sup>, with a proposed target, that 160g of portable batteries per person per year are to be recovered for recycling within the next four years. It is also proposed that industrial and automotive batteries are to be prevented from going to landfill or incinerators. It recommends that portable batteries would be collected from kerbside collection points or from retailers or public buildings. 160 g of batteries per person in the South East is 66 t. 74 t was collected in 2003.

### 6.2.9. Textiles

Door-to-door collection schemes are in place but the collection of textiles is mainly through bring banks in the region and second hand stores. The bring banks are supplied by both local authorities and charities. The textile waste recovery industry is dominated by five main companies in the Republic of Ireland. The main textile waste recovery companies do not accept waste carpets, therefore there is no known recovery of carpets in Ireland. Some potential new outlets for textiles include production of yarn and fleece; production of synthetic materials; carpet products; textile hardboards.

### 6.2.10. Wood

Green waste is accepted for recovery at a number of recycling centres throughout the region. Commercial wood recovery is handled by private operators. 30 companies are involved in the wood recovery industry in Ireland. Some potential new outlets for wood include, wood-fibre-plastic products; pulp and paper manufacture.

### 6.2.11. Used Beverage Cartons (UBC)

UBC's are accepted for recovery at a number of recycling centres in the region. UBCs are composed of fibre, polyethylene and sometimes aluminium. They are generally used for packaging milk, fruit juices, etc. The domestic waste stream produces the majority of UBCs. It is believed in Ireland that the majority of UBCs go to landfill.

In Europe, 37% of UBCs are recovered; 20% are sent for mechanical recycling and the other 17% are used for energy recovery. Some potential new outlets for UBCs include: new cartons, paper based products; heat recovery; thermoformed products and building material.

## **6.3. Waste Management Infrastructure**

Both the public and private sectors are involved in the provision of waste management infrastructure in the region. This infrastructure consists of:

- bring centres
- recycling centres
- waste transfer stations (WTSs)
- material recovery facilities (MRFs)
- biological waste treatment facilities
- landfills

There is one site with a licence to remediate on-site soil but it is not licensed to accept any waste inputs.

Figure 6.2 is a location map of existing waste management infrastructure in the region.

A list of all facilities in the Region with an EPA licence (as of March 2005) is in Appendix 6.1.

### 6.3.1. Bring Centres

All bring centres in the region provide for the collection of clear, brown and green glass. The number of sites provided by each Local Authority is shown in Table 6.3.

**Table 6.3: Bring Centres in the South East Region 2004**

<b>Local Authority</b>	<b>No. of Bring Centres</b>
Carlow	44
Kilkenny	44
South Tipperary	73
Waterford City	23
Waterford County	43
Wexford	124
<b>Total</b>	<b>351</b>

On average there is one bring centre per 400 households or one bring centre per 1,200 persons approximately.

### 6.3.2. Recycling Centres

At present there are 11 recycling centres in the region, they are serviced by the public sector. There were 12 centres in 2003, site is being relocated. Hewittstown Recycling Centre in Wexford is due to open in 2005.



**Table 6.4: Recycling Centres in the South East Region 2004**

Local Authority	Recycling Centre
Carlow	Kernanstown Powerstown Landfill Haraldstown
Kilkenny	Dunmore
South Tipperary	Legaun
Waterford City	Kilbarry
Waterford County	Tramore Landfill Lismore Dungarvan Landfill
Wexford	Killurin Landfill Rosbercon

These facilities provide for the collection of recyclable and household hazardous waste. The range of materials collected at each facility shown in Table 6.5.

**Table 6.5: Waste Fractions accepted at Recycling Centres in the South East Region 2004**

Materials Collected	Kernanstown	Powerstown	Haraldstown	Dunmore	Legaun	Kilbarry	Tramore	Lismore	Dungarvan	Killurin	Rosbercon
Household Batteries				✓	✓					✓	✓
Beverage Cans	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Beverage Cartons							✓	✓	✓	✓	✓
Cardboard boxes	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Food Cans				✓		✓	✓	✓	✓	✓	✓
Glass bottles/jars	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
Newspapers		✓		✓	✓		✓	✓	✓	✓	✓
Plastic Milk Bottles						✓	✓	✓	✓	✓	✓
Plastic Mineral Bottles				✓		✓	✓	✓	✓	✓	✓
Scrap Metal										✓	
Textiles	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
Waste Oil										✓	
Green Waste								✓	✓	✓	✓
Household hazardous				✓			✓	✓	✓		

### 6.3.3. Transfer Stations

Both the public and private sectors operate waste transfer stations in the region. Four transfer stations are operated under waste licences issued by the Environmental Protection Agency (EPA). There are a number of smaller facilities operating under a waste permit.

#### Waste Transfer Stations Operating with a Waste Licence

Carlow County Council operates Haroldstown. WTS private transfer stations are operated by Waterford Utility Services (Waste Disposal) Ltd., South East Recycling Co. Ltd. and Onyx Ltd. A description of the types and quantities of waste handled at these facilities is given in Table 6.6.

**Table 6.6: Waste Transfer Stations operating with a Waste Licence in the South East Region 2005**

Operator	Facility Name	Waste Licence Number	Material Handled	Licensed tonnage	
Waterford County Council	Dungarvan Waste Transfer Station	32-2	municipal	10,000	
			household hazardous	400	
			garden waste	1,120	
Carlow County Council	Haroldstown WTS, Tullow, Co. Carlow	139-1	municipal	850	
			commercial	300	
			for recovery	total 1,150	
Waterford Utility Services, Ltd	Waterford Utility Services WTS, Waterford City	116-1	municipal	9,500	
			C&D	4,000	
			non-hazardous solids	1,500	
			total	15,000	
South East Recycling Co. Ltd.	South East Recycling Centre, Wexford Town	111-1*		existing	proposed
			household recyclables	1,500	
			commercial	5,000	6800
			C&D	3,500	5000
			industrial non-hazardous	3,500	4200
			domestic		11000
			total	13,500	27000
Onyx Ireland Ltd.	Onyx Ireland Ltd. WTS, Waterford City	177-1 PD	household	4,200	
			commercial	12,000	
			C&D	800	
			industrial non-hazardous	8,000	
			total	25,000	

\* Waste Licence 111-1 was granted in January 2001. The licence states that 13,500 tpa is the maximum allowable throughput for the facility until proposed infrastructure is installed. Upon completion of proposed infrastructure the allowable tonnage will be increased to 27,000 tpa.

### **Haroldstown Transfer Station**

Haroldstown Transfer Station, Tullow, Co. Carlow is operated by Carlow County Council. The site is licensed by the EPA, WL 139-1. A total of 1,150 tpa of domestic and commercial waste is licensed for acceptance at this facility for subsequent recovery and disposal off-site. There are two licensed activities:

- compaction of waste deposited in a hopper unit and transfer from the hopper to an enclosed container for removal off-site
- temporary storage of non-recoverable waste prior to removal off-site

The following wastes may be accepted:

- waste oils
- beverage cans
- white goods
- glass
- metals

### **Waterford Utility Services, WTS**

Waterford Utility Services, WTS is operated by Waterford Utility Services Ltd. The site is licensed by the EPA, WL 116-1. A total of 15,000 tpa of municipal waste, non-hazardous industrial solids and C&D may be accepted at the facility for blending and mixing (bulking up) and temporary storage prior to removal off-site.

The following wastes may be accepted:

- metals or metal compounds
- other inorganic materials
- organic substances (not used as solvents)

### **South East Recycling Centre**

South East Recycling Centre is operated by Ormond Waste. They took over South East Recycling Co. Ltd in mid 2004. The site is licensed by the EPA, WL 111-1. A total of 27,000 tpa may be accepted at the facility once the proposed infrastructure has been developed.

Licensed activities include:

- handling of skip waste and proposed compaction of skip waste prior to removal off-site
- temporary storage of waste prior to removal off-site

The following wastes may be accepted for handling on site:

- wood
- plastic
- steel and C&D from commercial and industrial skip waste
- aluminium cans
- glass

### **Waste Transfer Station, Onyx**

Onyx Ireland Ltd (IPODEC Ireland) has received a proposed decision (PD) from the EPA in respect of a waste licence application (177-1). The proposed location of the facility is Waterford City. The PD states that 25,000 tpa can be accepted for sorting for transfer. Recyclable wastes will be picked out and stockpiled for transfer. Non-recoverable waste will be bulk loaded for transfer off-site. Onyx Ireland Ltd. has applied for a review of the PD (177-2).

Dungarvan Waste Disposal Site and Kilbarry Landfill in Waterford City are licensed to accept scrap metals, white goods etc at their metal recovery areas (1,000 and 2,000 tpa respectively).

### **Waste Transfer Stations Operating with a Waste Permit**

In addition to the above facilities there are a number of transfer stations operated by the private sector across the Region under waste permits. A privately operated transfer station under a waste permit is permitted to handle a maximum of 5,000 tonnes per annum of waste for disposal. There is no tonnage limit on materials that are handled for recycling/recovery at these transfer stations. Table 6.7 outlines private transfer stations operating under waste permits.

**Table 6.7: Private Waste Transfer Stations operating under Waste Permits in the South East Region**

Operator	Facility Name and Location	Waste Permit No.	Material Handled	Permitted Tonnage	Processes
O'Meara Waste Disposal Ltd*	Suir Island, Clonmel	WP/1/02	recyclables C&D MSW	3,480	Recycling and reclamation of metals, C&D and glass blending bulking repackaging temporary storage transfer
Clonmel Waste Disposal	WTS & wood burner, Lawlesstown, Clonmel	WP/04/03	scrap metal, white goods, C&D, timber, glass wool, paper & cardboard, mixed municipal	3,188	Recycling and reclamation of metal, metal compounds and inorganic materials (C&D and glass). Fluidised bed wood burner, used to generate energy.
Walsh Waste Management	O'Neil St. Clonmel	WP/3/03	Recyclables, packaging, oils and fats and wood pallets	-	Recovery of wood, paper, cardboard and other paper products, recovery of metals from waste, recovery of C&D and glass, storage of waste prior to transfer
Ned Morris	WTS & wood burner, Crohane Lwr, Killenaule, Thurles	WP/5/03		-	
Jimmy Murphy	Dangan, Co. Kilkenny	WP12/2003	Wood chip	-	Storage of waste wood chip
OCS One Complete Solution Ltd.	Hebron Industrial Estate, Kilkenny	WP13/2003	Sanitary waste	-	Storage of sanitary waste
Goff Recycling	Wexford	WP/04/12	Commercial recovery	20,000	Recovery operations

T.B.D. = Information not available at time of writing.

There are no permitted waste transfer stations in Kilkenny

\*At time of writing, Mr. Binman had applied for a waste permit for this site. It is expected that the quantities will remain the same.

\*\* This facility is moving to a new location and is expected to be a larger facility with increased tonnages in the new permit.

#### 6.3.4. Materials Recovery Facilities

Waterford County Council operates a Materials Recovery Facility (MRF) in Dungarvan. This facility operates under Waste Licence 189-1 and is licensed to accept 24,000 tpa of recyclable material. Materials accepted at this facility include non-hazardous household, commercial and industrial dry recyclables i.e. paper, cardboard, natural and man-made fibres, glass, plastics, ferrous and non-ferrous metal. The non-hazardous dry recyclables are collected from households and businesses and are brought to the facility for segregation, sorting and packaging prior to onward recovery elsewhere.

This facility was commissioned in late 2004. The MRF has capacity to handle all recyclable material collected by local authorities in the region.

#### **MRF's Operating with a Waste Permit**

There are a number of privately operated MRFs in the region. These facilities all operate under waste permits. Summary details of these facilities are outlined in Table 6.8.

**Table 6.8: Material Recovery Facilities operating under a Waste Permit in the South East Region**

Operator	Facility Name and location	Waste Permit No.	Materials handled	Tonnage	Processes
Clearpoint Recycling	Ballylynch Carrick-on-Suir, Co. Tipperary	WMWP12/05	Dry recyclables	50,000	Recovery of wood, paper, cardboard and other paper products, plastics recovery of metals from waste, recovery of textiles, storage of waste prior to transfer.
Phelan & Ryan Trading	Millriver Business Park, Carrick on Suir, South Tipperary	WP/24/03	recyclables, packaging	720	Recovery of plastics, cardboard and other paper products, recovery of inorganic materials and storage of waste on site prior to transfer off site.
Evan Delaney	Red City, Fethard, South Tipperary	WP/10/04	Inorganic materials	--	Recycling or reclamation of inorganic materials
Michael Bailey	Mount Bruis, Tipperary	WP/4/02	ELV's	--	Car dismantling, waste recovery
James Wyse	Convent Garden, Clogheen	WP/30/03	ELV's	--	Car dismantling, waste recovery
Richard Nugent	Lismore, Co. Waterford	WP/04/03	ELV's	--	Automobile recovery
Maurice Lenihan	Kilmacthomas, Co. Waterford	WP/05/04	ELV's	--	Automobile recovery
Cara Waste Management	Tramore, Co. Waterford	WP/12/04	Dry recyclables	--	--

Operator	Facility Name and location	Waste Permit No.	Materials handled	Tonnage	Processes
Gerry Dunne	Leggettsrath, Kilkenny	WMP/12/2002	non hazardous domestic, commercial and industrial recyclable material inert C&D	no permit limit given	sorting and storage of recyclable materials
AES,	Hebron Road, Kilkenny City	WMP/21/2002	non hazardous MSW and industrial recyclable material inert C&D	no permit limit given	sorting and storage of recyclable materials and skips
Doheny, Wheelie Bins	Castleinch, Kilkenny	WMP/01/2002	non hazardous domestic, commercial and industrial recyclable material inert C&D	no permit limit given	sorting and storage of recyclable materials
Kilkenny Recycling Ltd.	Dunmore West, Kilkenny	WMP03/2001	--	--	Waste recovery activities
Kilkenny Recycling Ltd.	Hebron Industrial Estate, Kilkenny	WMP04/2001	--	--	Waste recovery activities
James Kennedy	Natural Power Supply, Pottlerath, Kilmanagh & Kilballykeefe, Kilkenny	WMP/18/2003	Brewery waste	--	Storage of brewery waste and recovery of brewery waste on willow plantation
Clara Cars	Clara, co. Kilkenny	WP02/2003	ELV's	--	Automobile recycling
Philip Mc Bride	Lilkeasy, Hugginstown, Co. Kilkenny	WMP01/2004	ELV's		Dismantling of vehicles
Specialised Metals	Unit 17, Gorey Business Park, Gorey, Co. Wexford	WP/03/01	Metals, WEEE, plastics	1000m <sup>3</sup>	Recovery of metal compounds from catalytic converters, recovery of discarded WEEE, recovery of metals from WEEE and recovery of plastics
Recycle 2000	Wexford Enterprise Centre, Wexford	WP/98/0001	paper	1,000	Recycling of paper into paper products

T.B.D. = Information not available at time of writing.

### 6.3.5. Biological Waste Treatment Facilities

Waterford City Council operates a biological waste treatment facility at Six Cross Road, Waterford City. This facility is designed to treat the organic fraction of household and commercial waste. Currently, this facility is treating approximately 1,500 tonnes per annum, the maximum throughput capacity of this facility is 28,000 tonnes per annum.

The biological waste treatment facility has the capacity to treat all organic waste collected in the region by the local authorities.

#### **Biological Treatment Facilities Operating with a Waste Permit**

Private sector capacity within the region to provide biowaste treatment is outlined in Table 6.9. All privately operated biological waste treatment facilities in the region are operated under waste permits.

**Table 6.9: Biological Waste Treatment Facilities operated under a Waste Permit 2003**

Operator	Facility Name and location	Waste Permit/Waste Licence No.	Materials handled	Tonnage	Processes
CTO, Greenclean	Bennekerry, Co. Carlow	WP103	Sludges, food waste, wastes from spirits distillation, paper and cardboard, edible oils and fats.	5,000	Aerobic composting The quantity of waste and compost, added together on-site shall not exceed 1,000 cubic metres at any time.
CTO, Greenclean	Grange, Tullow, Co. Carlow	WP02/03	Sludges, food waste, wastes from spirits distillation, paper and cardboard, edible oils and fats.	5,000	Aerobic composting The quantity of waste and compost, added together on-site shall not exceed 1,000 cubic metres at any time.
Patrick O'Toole	Ballintrane, Fenagh, Co. Carlow	WP02/04	Sludges, food waste, wastes from spirits distillation, paper and cardboard, edible oils and fats, garden waste, wood, wooden packaging, dairy industry wastes, wastes from baking and confectionary.	1,000m <sup>3</sup>	In-vessel tunnel composting facility Recovery of waste Recycling or reclamation of organic substances The treatment of any waste on lands with a consequential benefit for an agricultural or economic activity.
Miltown Composting Systems	Fethard, South Tipperary	WP/28/03	Sludges, green waste, separately collected biowaste	6,700	Composting of organic materials that do not contain animal by-products Treatment of any waste on land with benefit for agriculture Storage of biowaste prior to treatment on site
O'D Recycling	Composting Facility, Ballypatrick, Co. Tipp	WM/WP/06/03	sludges plant tissue waste food wastes kitchen waste green waste		Industrial composting using a controlled aerated static pile system with temperature feedback control

Operator	Facility Name and location	Waste Permit/Waste Licence No.	Materials handled	Tonnage	Processes
Vicky Heslop	Ballymacarbry, Co. Waterford	WP06/02	organic waste	2,500 m3	biological treatment
Moalsin Compost Ltd.	Cappoquin, Co. Waterford	WP05/2004 (A)	sludges	12,000	biological treatment
Camphill Community	Ballytobin, Callan, Kilkenny	WMP/05/2000		5000	anaerobic digestion
Patrick Berridge,	Ballyshannon Farms, Admastown, Co. Wexford	WP-02-001	Agricultural waste, grease trap waste and commercial food waste	300 t digester	anaerobic digester
Waddock Composting Ltd.	Waddock, Co. Carlow	WP 11/04	Organic Waste	5,000	Biological treatment

T.B.D. = Information not available at time of writing  
WP = Waste permit

Not all of the facilities indicated in Table 6.9 have been developed to date (the two CTO systems are not yet up and running).

According to the Regulations the amount of compost and organic waste on site at any one time cannot exceed 1,000m<sup>3</sup> at a waste permitted facility. For a number of facilities this was the only information available in terms of annual throughput.

### 6.3.6. Landfill Facilities

There are six landfill facilities within the South East Region. Since 2002, waste licences for Dunmore (Kilkenny), Donohill (South Tipperary), Killurin (Wexford) and Powerstown (Carlow) landfills were reviewed. The current status of each landfill is detailed in Table 6.10. The information on existing landfills was sourced from each of the EPA waste licences and from the AER returns 2003. As shown in Table 6.10 there are currently 6 operational landfills in the region. A waste licence has been issued by the EPA for Holmestown landfill in Wexford. Details of this landfill and the proposed Harbog (South Tipperary) landfill are included in Section 6.4.

Landfill gate fees within the Region range from €90 - €160 (does not include the landfill levy).

**Table 6.10: Existing Landfills in the Region (2004)**

Facility name	WL no.	Licensed waste input for disposal	Input 2003 (t)	Capacity remaining Note 1 (t)	Time remaining (years)	Materials Handled	tpa	Processes
Powerstown Landfill Site, Co. Carlow	25-2	28,500	28,000 (25-1)	40,000	1.5	household commercial sewage sludge industrial non-hazardous C&D	19,200 6,250 1,250 780 1,000	disposal of non-hazardous waste temporary storage of leachate temporary storage scrap metal material removal for off-site recycling
Dunmore Landfill, Co. Kilkenny	30-2	40,000	17,259	110,000	<3	household commercial sewage sludge industrial non-hazardous C&D green waste	20,995 14,000 1,000 5,000 1,000 1,500	disposal of non-hazardous waste temporary storage of leachate temporary storage scrap metal, cans and inorganic materials prior to removal off-site for recycling recovery of C&D for daily cover use of treated sewage sludge and compost as soil conditioner for restorative capping
Donohill Landfill, South Tipperary	74-2	40,000	30,000	52,500	1.5	household commercial sewage sludge industrial non-hazardous sludge industrial non-hazardous waste C&D	30,000 4,000 500 1,000 3,500 1,000	disposal of non-hazardous waste temporary storage of leachate recovery of C&D for daily cover temporary storage scrap metal, white goods prior to removal off-site for recycling

Facility name	WL no.	Licensed waste input for disposal	Input 2003 (t)	Capacity remaining Note 1 (t)	Time remaining (years)	Materials Handled	tpa	Processes
Kilbarry Landfill, Waterford City	18-Jan	68,000  Closed in 2005	13,000	200,000 Note 1	2	household commercial sewage sludge industrial non-hazardous sludge industrial non-hazardous waste C&D recycling centre metal recovery	17,000 12,500 2,500 7,500 28,500 2,000 3,000 2,000	disposal of non-hazardous waste temporary storage of leachate recovery of C&D for daily cover temporary storage glass and household hazardous material prior to removal off site for recycling temporary storage metal, including white goods and abandoned cars prior to removal off-site for recycling
Tramore Waste Disposal Site, Co. Waterford	75-1 (75-2 licence under review)	15,000  Closed in 2005	15,000	11,000 Note 1 (t)	<1	household commercial industrial non-hazardous waste C&D	8,400 3,000 600 3,000	disposal of non-hazardous waste temporary storage of leachate temporary storage of dry recyclables at recycling centre recovery of C&D for daily cover temporary storage paper and metal cans
Killurin Landfill, Co. Wexford <sup>Note 3</sup>	16-2	68,000 of which 22,000 is for restoration works	36,800	50,000 Note 1 (t)	1.25 (plus emergency capacity)	household commercial  recycling centre  material for restoration works	35,500 10,000  2,500  22,000	disposal of non-hazardous waste temporary storage of leachate temporary storage of scrap metal, metal cans, white goods prior to removal off-site for recycling temporary storage of paper, cardboard, wood, Christmas trees, and waste oils at the recycling centre prior to removal off-site for recycling

Note 1 Capacity of new extension due for completion in May 2006

Note 2 Capacity remaining from end of 2003

Note 3 Killurin landfill closed in March 2005 but has emergency capacity for 6,000 t in 2006.

### 6.3.7. Soil Remediation Facilities

There is one EPA licence in the region termed as a soil remediation facility. Soil remediation will not take place on site, it will be exported abroad for treatment.

#### **Waterford Gasworks**

Bord Gais obtained a waste licence (190-1) in July 2004 for the sole purpose of remediating and clearing the site of the former gasworks in Waterford City for redevelopment. The following activities are licensed:

- recovery of 18,000 t of C&D for re-use on site
- recovery of 10,000 t soil for re-use on site
- export of 32,000 t of contaminated soil for remediation
- discharge of 15,000m<sup>3</sup> of groundwater to sewer
- removal of underground tar tanks and gasholder basins off site

This facility will not accept any waste inputs and will operate for the period of one year to enable clearance of the site.

### 6.3.8. Closed Waste Management Facilities

At the end of 1998, there were 264 landfills reported as closed nationwide, 35 of which are located within the region. Since the publication of JWMPSE (2002), Dungarvan landfill has closed.

South Tipperary and Kilkenny County Councils are listed as two of the 8 local authorities that have carried out Section 26<sup>Note 1</sup> assessments of hazardous waste disposal sites in their area. Kilkenny County Council has identified 28 sites and South Tipperary County Council has identified 15 sites. Kilkenny County Council has conducted risk assessments on 3 sites to date.

**Table 6.11: Summary of Closed Landfill Sites (2004)**

<b>Local Authority</b>	<b>No. of Closed Landfills</b>
Carlow	3
Kilkenny	4
South Tipperary	3
Waterford County	4
Wexford	22
Total	36

The National Hazardous Waste Management Plan Implementation Committee – Annual Report<sup>56</sup> was submitted to the Department of Environment, Heritage and Local Government in August 2004. This report presented an update on the progress of implementing the National Hazardous Waste Management Plan 2001. It identifies hazardous waste generation on a national level. The report identified hazardous waste arisings in Ireland as belonging to one of two groups:

- “reported” hazardous waste quantities which are taken directly from reported hazardous waste arisings i.e. C1 consignment forms
- “unreported” is the fraction of the total not recorded as managed by an authorised contractor. It is an estimated figure based on a range of methodologies (used by the implementation committee).

The Minister of the Environment, Heritage and Local Government in this policy direction of the – May 2005 and subsequent communication of the Environmental Protection Agency, has requested that all local authorities commence the compilation of a register of former landfill sites (Section 26 register) and commence a risk assessment to determine their environmental impact. The South East Region has commenced this process (July 2005).

### 6.3.9. Other Waste Permitted Sites

In total there are 143 other sites (excluding those discussed previously, WTSs, MRFs and biological treatment facilities) with waste permits in the region. These include sites, which are permitted to accept:

- construction and demolition waste
- soil and stones (for land reclamation)
- other
  - other non-hazardous sanitary waste
  - dredged material
  - sawdust for energy production

There are an additional 11 sites for which the waste accepted is not specified.

**Table 6.12: Number of Waste Permitted Facilities in the South East Region 2004**

<b>Facility Description</b>	<b>Number of Sites</b>
waste transfer stations	13
material recovery facilities	21
biological treatment facilities	6
construction and demolition waste	30
land reclamation	58
not specified	15
<b>Total</b>	<b>143</b>

## **6.4. Proposed Waste Management Facilities for the South East Region**

The following is a summary of proposed facilities for the region. The information is based solely on applications that are currently lodged with the EPA. Figure 6.3 shows the locations of the proposed facilities.

### 6.4.1. Proposed Bring Centres

It is proposed to strategically locate additional bring centres in the region at locations that best service the need of the community.

#### 6.4.2. Proposed Recycling Centres

There are nine proposed civic amenity sites for the Region. These civic amenity sites are proposed for:

- Cashel
- Tipperary Town
- Clonmel
- Carrick-on-Suir
- Cahir
- Enniscorthy
- Gorey
- Wexford Town
- Holmestown Landfill

#### 6.4.3. Proposed Waste Transfer Stations

There are a number of applications for waste licences in respect of waste transfer stations in the region. At time of writing the following applications had been submitted to the EPA and no decisions had been made regarding a licence to operate. Information on proposed capacities was not supplied.

- WTS, Gorey, Wexford  
Greenstar has applied for a waste licence (202-1) for a WTS.
- Recycling Centre and WTS, Cashel  
South Tipperary County Council has applied for a waste licence (200-1) for a facility at Waller's Lot, Cashel.
- Dungarvan Waste Disposal Site  
Waterford County Council has applied for a waste licence (32-2) for a WTS at the existing site.
- A waste permit has been granted (WP7/03) to Wheel it for a WTS and MRF in Cahir, South Tipperary. It is awaiting planning permission.

#### 6.4.4. Proposed MRF

Wexford County Council was granted a waste licence (191-1) in December 2004 for an integrated waste management facility in Holmestown Wood. The licence includes provision for a civic amenity and MRF of capacity 12,000 tpa.

#### 6.4.5. Proposed Biological Treatment Facilities

AES Ltd. and Custom Compost have both applied to the EPA for waste licences for the following proposed composting facilities at:

- Portlaw, Co. Waterford (212-1)
- Gorey, Co. Wexford (123-1)

Wexford County Council was granted a waste licence (191-1) in December 2004 for an integrated waste management facility in Holmestown Wood. The licence includes provision for a composting facility of capacity 5,000 tpa. Construction of the integrated waste management facility is due to commence in 2005/6.

#### 6.4.6. Proposed Landfill Facilities

Table 6.13 is a summary of the existing proposals within the region for new landfill facilities.

**Table 6.13: Proposed Landfill Facilities (Annual Input and Expected Lifespan)**

Facility Name	WL no.	Licensed waste input for disposal (tpa)	Capacity remaining (t)	Time remaining (years)
Holmestown Wood	191-1	45,000	900,000	20
Hardbog Landfill (South Tipp)	19-1	40,000	600,000	15

#### **Holmestown Wood**

Holmestown Wood near Holmestown, Co. Wexford is an integrated waste management facility comprising a landfill, a MRF, a civic amenity facility and a composting facility. It will be operated by Wexford County Council. It was licensed by the EPA, WL Register No.191-1 in December 2004. Construction is due to start in 2005/6. The facility is licensed to accept 80,000 tpa, of which 55,000 tpa is for disposal at the landfill. Waste acceptance at the facility is as follows:

- non-hazardous household and commercial waste 55,000 tpa
- composting 5,000 tpa
- C& D 8,000 tpa
- civic amenity and MRF 12,000 tpa

The processes carried out at the landfill facility include:

- disposal of non-hazardous waste
- pre-treatment and temporary storage of leachate prior to removal off-site for disposal
- mixing and or compaction of waste prior to removal off-site
- temporary storage of scrap metal, metal cans, batteries and white goods prior to removal off-site for recycling
- temporary storage of glass, textiles, clothing, batteries, fluorescent tubes prior to removal off-site for recycling
- disposal of compost on site if it fails to meet certain criteria
- recovery of C&D for restoration works

## **Hardbog Landfill**

Hardbog Landfill, in Grangemockler, Co. Tipperary will be operated by South Tipperary County Council. It is licensed by the EPA, WL Register No. 19-1. The license was granted in June 2004. (A local opposition group are seeking leave in the High Court to lodge a judicial appeal against the issuing of the licence.) The facility is licensed to accept 40,000 tpa for disposal. Waste acceptance at the facility is as follows:

- household waste 22,000tpa
- commercial waste 4,000 tpa
- sewage sludge 1,000 tpa
- industrial non-hazardous sludge 2,000 tpa
- industrial non-hazardous waste 9,000 tpa
- C&D waste 2,000 tpa

The processes carried out at the landfill facility include:

- disposal of non-hazardous waste
- temporary storage of leachate in lagoons prior to removal off-site for disposal
- temporary storage of scrap metal, aluminium cans, and inorganic material prior to removal off-site for recycling
- recovery of C&D for daily works

Waterford County Council applied for a waste licence (187-1) for an integrated waste management facility at Garrynagree, Dungarvan, Co. Waterford in 2003. It was proposed to accept 120,000 tpa for disposal at the landfill over a period of 20 years. The site received planning permission from An Bord Pleanala in December 2004 but was refused a waste licence in January 2006.



## **6.5. Waste Enforcement**

Since 2003, the focus for all local authorities and the nominated authorities switched from predominantly issuing permits to the enforcement of permits issued, while still retaining their obligations and continued to evaluate waste disposal/recovery/collection permit applications. This coincided with the employment of waste enforcement officers, the establishment of waste enforcement sections within local authorities and the commencement of road block inspections. This change in emphasis coincided with the establishment of the Office of Environmental Enforcement (OEE) within the Environmental Protection Agency.

An Environmental Network has been established by the OEE in conjunction with all local authorities. The network's objective is to foster cooperation in waste enforcement so that a more consistent standard is achieved throughout the country.

Up to 2003, the majority of local authority staff with waste management functions were involved in the issuing of permits with fewer staff involved in enforcement activities. To address staffing deficiencies in waste enforcement, local authorities were permitted to recruit staff to establish waste enforcement teams,

The main functions of waste enforcement staff are to:

- respond to and investigate third party complaints in relation to waste activities
- respond to unauthorised waste activities identified through effective enforcement
- undertake audits/inspections of permitted facilities and collectors

## **6.6. Local Authority Waste Initiatives in the South East Region**

Since the publication of the JWMPSE there has been a significant increase in public awareness initiatives in the region. This can be attributed to the work of the Public Awareness Officers in each of the local authorities. These Officers are responsible for liaising with all sectors of the community including schools, businesses and the waste industry. The theme of their awareness/education campaigns compliment the elements of the National Race Against Waste (RAW) campaign as well as the Waste Initiatives for the South East Region (W.I.S.E.R. Ways).

All elements of the environmental education and awareness programme in the South East Region complement the elements of the National Race Against Waste campaign by the promotion of preventing, reducing, reusing and recycling initiatives across the region. Education and awareness programmes are aimed at various audiences, as previously identified in the JWMPSE (2002) including (but not limited to):

- domestic households
- youth groups (including schools and youth reach groups)
- commerce & industry (promotion of the RAW Small Change Campaign)
- agricultural sector (delivering REPS waste management training courses)
- community leaders & representatives

Public awareness initiatives in each of the regions local authorities are outlined below and summarised in Table 6.14.

### 6.6.1. Carlow County Council

#### **Schools**

Carlow County Council operates a schools environmental programme from the environment department that complements initiatives taking place in other departments in the Council. The environmental programme includes:

- A free battery recycling scheme operated by the Council to allow the collection of small batteries from both secondary and primary schools in the county.
- Informing schools about waste management through letters and visits.
- Providing a point of contact for teachers and pupils interested in finding out about environmental issues or becoming involved in practical projects.
- Supporting school teachers in developing curriculum ideas and environmental politics.
- Providing workshops for teacher and parents associations to assist them with waste minimisation and litter awareness.
- Providing up to date information on environmental topics through leaflets, posters and information sheets.
- Providing advice on composting and other recycling equipment for schools.
- Providing an up to date database of relevant websites.
- Giving presentations in schools and tours of recycling centres.
- Hosting Green Schools Workshops in association with An Taisce and coordinating and providing support for schools in the programme.
- Green Flag Award
- The number of schools awarded the Green Flag has tripled in the last year as schools become more involved in their environment.

#### **Households**

- Carlow County Council currently operates 44 recycling banks throughout the county. These take green, brown, clear glass and aluminium drink cans.
- There are six recycling banks for newspaper and magazines throughout the county.
- Three recycling centres are in place at Haroldstown, Powerstown and Kernanstown. These have proved very popular and are a great success and recycle up to 19 different materials.
- Kernanstown Recycling Centre was planned with the householder in mind and therefore was designed in a very user friendly way. The site is a centre of information and the public feel they can consult and ask for advice on all aspects of waste handling.
- A regular household hazardous waste collection service is provided through a mobile collection service.
- Householders are targeted with leaflet drops, articles and advertisements in local papers and radio items to highlight new facilities and encourage proper use of them.
- A variety of composting bins are sold at reduced rates through Kernanstown Recycling Centre complete with a user guide.
- Residents in the county take part in regular composting workshops run by Carlow County Council and complimentary courses run in association with non-governmental organisations.

## **Commerce and Industry**

- Carlow County Council supports the Chamber of Commerce and the business community in their efforts to manage their waste. The Council liaises with the Chamber of Commerce, the Race Against Waste Small Change team and over 1,200 businesses throughout the County.
- Every business has received a Guide for your Business from the Waste Management (Packaging) Regulations 2003 leaflet and an invitation to a workshop. Businesses are working out appropriate ways of recycling and are already putting in place waste clubs.
- An enforcement team has been set up to guide, inform and enforce the Packaging Regulations.
- The Chamber of Commerce meets regularly with members and sections of the Council regarding waste management issues. The Council staff attended meetings of waste clubs and organise workshops.

## **Community Initiatives**

- Waste Awareness Officers visit youth groups outside the school environment.
- Members of the environmental team regularly give presentations to residents committees and community groups. A successful liaison with RAPID and pretenancy courses is ongoing to combine reducing household waste collection with the recycling facilities available in Kernanstown. Younger members of the household were also targeted through school talks and tours to recycling centres.

## **Agricultural sector**

- Carlow hosted the National Ploughing Championships in Tullow in 2004, this proved an ideal way of reaching the agricultural sector and waste management and the Council continues to support local agricultural events.
- The Council liaises with regulatory authorities regarding correct disposal of material.

### **6.6.2. Kilkenny County Council**

Kilkenny County Council has contracted a full time Environmental Education and Awareness officer since 2001.

#### **Schools**

Kilkenny County Council has a schools environmental education programme which includes the following:

- Talks and school visits by the Environmental Education officer on a variety of waste management topics.
- School Battery Collection Scheme - The contract for school battery recycling was with Returnbatt. This contract was costing €185 per unit per annum per school with an additional cost to actually recycle the batteries per Kilo. From September 2004 battery containers will be distributed to the schools along with a "Battery Recycling Card". The cost of this service will be borne by Kilkenny County Council. To date 54 schools have signed up out of 79. The "Battery Recycling Card" will allow the school to bring the collected batteries to their local Area Office, the Environment Section, or Dunmore Landfill with no cost to the school for the battery disposal.

- All schools are offered a compost bin free of charge provided that the Environmental Education officer has completed a series of talks with the school and that the school is willing to participate in the Green Schools programme. Schools are encouraged to act as compost bin selling agents
- Green Schools: Kilkenny County Council encourages all schools to participate in the Green Schools Programme run by An Taisce, in order to foster greater environmental awareness and participation in environmental activities. There are currently 9 Green Flags in County Kilkenny and it is hoped that this number will increase over the next few years.
- Green Schools Seminar – An Annual Event held in conjunction with An Taisce to remind and encourage all schools about the Green Schools Programme.
- An Environmental Education School booking form was sent to all schools offering them a talk on a variety of Waste Management topics by the County Council Environmental Awareness Officer. Kilkenny County Council is working towards developing anti-litter and environmental projects with as many schools as possible.
- Dunmore Recycling Centre/Landfill Fieldtrips – first hand experience, an explanation into the engineering works at the site, an overview of the EPA conditions placed on the site. This programme commenced in May 2003.
- Mayors Litter Campaign–The Mayor and Environmental Awareness Officer visited every school in the city to introduce the litter plan and to reinforce its meaning.

### **Households**

- Kilkenny County Council currently runs a composting programme for domestic households, with more than 4,200 compost bins sold to date. Household holders are offered a compost bin at the subsidised rate of €25 (€12.50 OAP's) complete with instructions.
- Compost Demonstrations - Introducing and promoting composting as a means of waste reduction, a series of demonstrations are run throughout the county.
- County Hall, Libraries, Area offices and Dunmore Recycling Centre are all permanent agents for the subsidised compost bins
- Kilkenny County Council has officially met its target of 45 Bring Banks required throughout the county as per the JWMPSE. At time of writing one bring bank is being replaced. However, Kilkenny County Council would like to exceed this target and ensure that there is at least 1 bring bank location per 1,000 head of population. Kilkenny County Council will shortly announce a further 10 sites.
- Dunmore Recycling Centre collects household recyclables and hazardous waste
- Fridges and Freezers will be accepted at Dunmore Recycling Centre free of charge from Monday 19th of July 2004 to Friday 12th August 2005
- Chemcar operate free household hazardous waste collections throughout the county during the year.
- In February 2004 Kilkenny Borough Council commenced their domestic kerbside recycling collection.

### **Commerce and Industry**

Kilkenny County Council is involved in a number of initiatives with the commercial and industrial sector with the aim of reducing the amount of waste going to landfill. These include:

- Restrictions on recyclable material going to landfill (cardboard, glass, aluminium, steel, timber, newsprint and magazines).
- The circulation of a Kilkenny County Council Guide to packaging regulations and waste management as well as the Race Against Waste "Small Change" booklet explaining how the restrictions and packaging regulations work and also how to recycle their wastes.

- Provision of an advisory service to businesses who need information about recycling services
- The key to Kilkenny County Councils success is a partnership approach – rather than impose a blanket ban Kilkenny County Council focus on recyclable materials and helped companies avail of recycling services.
- Waste Audits – carried out for businesses to examine and demonstrate how waste management bills can be reduced and recycling rates increased

### **Community Initiatives**

- Community Composting projects have been undertaken and developed in Freshford and Piltown.
- Estate Management Projects County Council Estates – This programme carried out in conjunction with the Housing Department informs all new tenants of their obligations under the Litter and Waste Management Acts. Tenants are also educated in methods of waste reduction, particularly composting. Correct waste management techniques in the home will also reduce the costs involved in waste disposal.
- Kilkenny County Council distributes composters to local communities through schools.

### **6.6.3. South Tipperary County Council**

#### **Schools**

- all National Schools are contacted annually offering education service talks, activities and games on the subject of litter and “the three R’s”
- the Green Schools programme is run in the county in partnership with An Taisce. 24 schools are currently registered with three more registering in 2004. Four schools including one secondary have gained green flags with a further school applying for its flag this year (2004)
- schools are encouraged to apply for a battery recycling unit provided by Returnbatt and the cost of this service is borne by the Council
- a Tidy Schools competition is run as part of the Environmental Awards Scheme. This focuses on litter and general appearance of the schools
- certain schools in the Revitalising Areas by Planning, Investment and Development (RAPID) areas will be focussed on in 2005

#### **Households**

- A household composting scheme was introduced in January 2001. Since then nearly 3,000 compost bins have been sold to the public (originally the price was €12.70, it was increased in 2003 to €25) the kit includes a kitchen-kaddy and an instruction booklet.
- A successful initiative to boost sales of compost bins were held at local shows etc.
- It is hoped to run training courses on composting with resident associations, during 2005
- A collection of organic waste from households will be introduced in the future and the recycling centres which are planned will also have facilities for collecting garden waste for transfer to the composting facility in Waterford.
- A kerbside recycling scheme initiative was started for dry recyclables in 2003 on all local authority collection routes
- Using the permit system all the private collectors will be required to provide a similar service.

- 73 bring banks are now in place in the county with a further 3 being installed before the end of 2004. This is a coverage of 1:1,000 head of population (target for completion of network at this density was 2007). Rehab and Green Dragon are the main contractors for bottles and aluminium cans with paper being collected at three locations.
- Fridges and freezers are being collected for recycling for a nominal charge by Carrick-on-Suir Town Council as a pilot project, and it is hoped to extend this to other areas in the near future.
- Wastes which are collected at Legaun Recycling facility include; white goods, scrap metal, end of use vehicles, batteries, paper, fluorescent tubes etc.
- Donohill landfill accepts paper, bottles and cans for recycling.
- The Chemcar service for household hazardous waste is a tremendous success and has been oversubscribed on occasions. It is hoped to expand the service to some of the smaller communities in the north of the county in 2005.
- Progress towards new recycling centres at Cashel and Tipperary town are well advanced and it is hoped to open these in 2005. Three other sites are planned for Cahir, Clonmel and Carrick-on-Suir.

### **Commerce and Industry**

- The County Council offices are well equipped with office recycling containers for such consumables as batteries, printer cartridges, paper etc, this is to be a best practice example in a scheme to extend recycling to businesses in South Tipperary.
- A waste packaging leaflet was designed and distributed to all businesses in South Tipperary detailing their obligations under the Packaging Directive. Currently 68 businesses in South Tipperary are registered with Repak.

### **Community Initiatives**

- South Tipperary County Council participates every year in the National Spring Clean Programme (Ireland's largest anti litter campaign) which is organised in the month of April. Numerous community groups and schools participate in the event.
- The Anti Litter Grants (sponsored by DoEHLG) target different sectors of the community annually and in 2004 a community litter black spot initiative was organised.
- Future initiatives include the possibility of grant aiding community groups to monitor and clean up bring banks.
- The council have a comprehensive scheme of awards including tidy burial grounds, tidy towns and villages etc. Assistance is given in terms of litter pickers/ bags/skips etc to Tidy Towns Committees.

## **6.6.4. Waterford City Council**

### **Schools**

- A talk is given as part of the Waste Management module of the CSPE course in Secondary Schools. This includes a discussion of the best methods of waste treatment available and the 3-bin system currently in place. The quiz element of this course allows each student to give their views on waste and makes them think about the environment around them.
- The Green Schools programme continues to be popular with the majority of schools in Waterford City. The Mercy Convent achieved its Green Flag in September 2004. This has proved to be an excellent method of raising awareness and educating Primary School children about the environment.

## Household

- Waterford City Council has implemented a 3-bin system in the city since 2003. 98% of householders now have a green bin for dry recyclables and a brown bin for organic material. € 1.50 is charged for the collection of the green and brown bins, whereas € 4.50 is charged for the collection of the grey bin. This encourages maximum use of the recycling and composting bin. This new kerbside has resulted in a 42% diversion rate from landfill.
- The brown bins and kitchen caddies were delivered to each household free of charge. The newly built Compost Facility in Kilbarry now accepts organic material from both Waterford City Council and Waterford County Council.
- There is a recycling centre at Kilbarry Landfill. This accepts household batteries, untreated wood, cardboard, glass, cans and white goods for recycling.
- There are also 23 bring banks throughout Waterford City. These accept bottles and cans.

## Community Initiatives

- Hasbro Litter Rangers teaches children to care for their own area in Waterford City. The children take part in recycling initiatives and do clean ups of their estate. This gives them a sense of pride in their area, which in turn encourages them to keep it clean. Competition prizes, T-shirts and participation in the St. Patrick's Day Parade reward their efforts.
- A series of Clean Ups have begun in Waterford City. These are being run in partnership with WLR and ONYX. The series of clean ups will run until Spring 2005. This will highlight the importance of keeping your own area clean.
- Make Waterford Beautiful is an annual competition designed to encourage residents to make a special effort in their gardens and residential areas. This initiative rewards the special efforts that people make year-round to improve their area. It also involves people in cleaning up black spots and prevents littering.

## Waterford County Council

Information programmes promote all elements of Waterford County Council's existing and future waste management programmes (e.g. extension of kerbside materials collected, new recycling centres etc).

## Schools

- In the 2003/2004 academic year, Waterford County Council achieved the highest growth in Green Schools registration (38%) in the South East Region. Currently 56% of all primary schools and 66% of all secondary schools in Co Waterford are participating in this scheme.
- In partnership with the Environment Education Office, these Schools tackle various environmental issues, including Litter & Waste (Flag 1), Energy Consumption (Flag 2), Water Conservation (Flag 3), Sustainable Transport (Flag 4) and Healthy Living (Flag 5). As at June 2004, 10 Primary Schools and 1 Secondary school achieved their Green Flag for outstanding environmental commitment. The increased interest in the Green Schools programme has been due to a combination of facts including the visits made by the Environment Education Officer to both primary and secondary schools, Green Schools seminars (in association with An Taisce) and regular mailings on the achievements of awarded Green Flag schools.
- Anti-litter and waste management programmes are also delivered by theatre shows that have been funded by the Environment Education Office.

- In 2003, the first Annual Primary School Environment Awards was held to officially recognise the waste management and litter prevention work taking place throughout the County. Secondary schools participate in School debates, poetry and poster competitions that link in with the national Race Against Waste Campaign and their awards are incorporated in the Community Environment Awards night.
- All schools are automatically entered into a Tidy Schools competition run annually by the Environment Section.

### **Household**

- Waterford County Council operates 3 recycling centres in Dungarvan, Tramore and Lismore.
- These facilities are complemented by an extensive network of 43 bring banks where glass bottles and jars can be recycled across County Waterford (in 2002, only 17 banks were located in the County).
- These facilities are promoted by various methods including on local media including, WLRFM (local radio) and print media and on the Council's website [www.waterfordcoco.ie](http://www.waterfordcoco.ie)
- Since the introduction of the monthly dry recyclable kerbside collection in November 2001 (and refuse collected on the other 3 weeks in the month), Waterford County Council increased the frequency to fortnightly collections in January 2002. In April 2003, this system was rolled out to rural households on a fortnightly collection basis.
- In September 2004, Waterford County Council introduced a domestic brown bin collection of organic materials from all householders on existing routes. An intensive media campaign began in June 2004, 4 months prior to the first collection, with radio interviews on WLRFM, weekly articles in all County Waterford newspapers and regular web updates.
- 17,500 households received a free 140 ltr brown bin and kitchen caddy and information pack. This information pack has highlighted the materials accepted and included a helpful collection calendar for the brown bin, dry recycling and refuse collection. This, combined with the current diversion of 29% of dry recycling materials, will divert approximately 59% of materials from landfill.
- Householders also have the opportunity to purchase household composting units from the Environment Section.

### **Commerce and Industry**

- During 2003, Waterford County Council, in association with Celtic Composting Systems started a pilot organic collection from commercial customers (including restaurants, florists and other suitable businesses in the Dungarvan area). The education and awareness programme outlined the various elements of the campaign including, frequency of collection (weekly), collection receptacle provided (204ltr wheelie bin) and the benefits to the clients (achieving a reduction in waste management costs while at the same time achieving landfill diversion and benefiting the environment).
- Materials were brought to the purpose built in-vessel composting facility in the Dungarvan Recycling Centre. Due to the success of the education programme associated with the pilot scheme, it was rolled out on a countywide basis. Currently, over 40 businesses are participating in diverting suitable organic waste from landfill on a weekly basis.

## **Community Initiatives**

- Waterford County Council participates every year in the National Spring Clean Programme (Ireland's largest anti litter campaign). National Spring Clean is a yearly event that happens every April and numerous community groups (26 in 2004) around County Waterford participate in the event. Also, schools participate in this event on a year round basis e.g. Cunnigar Clean Up by students from Colaiste Chathail Naofa, Dungarvan.
- Inter Community Litter Challenge - eight areas are assessed in each town/village being judged, including a main street, a residential street, a green area, a housing estate, an approach road, the environs of a school, the environs of a church and a car parking area. Marks are also awarded for evidence of and use of a litter management plan. Winners in both the Town and Village categories are announced on the night of the annual environment awards.

### **6.6.5. Wexford County Council**

#### **Schools**

Wexford County Council's Environment Education Program 2004/2005 sets out the aim of the Council which is to promote awareness and encourage active participation in a wide range of environmental initiatives amongst primary and secondary pupils throughout the county. Initiatives include:

- School visits whereby the Education Officer provides assistance to schools by providing talks, information leaflets, fact sheets and posters on a wide range of environmental topics.
- encouraging schools to enter the Green Schools project
- supporting involvement in An Taisce's Coastcare project
- organising educational trips to recycling centres, woodlands and wetlands
- battery recycling in all 103 primary schools
- providing educational programmes tailored to the local bio-diversity of Wexford such as Wexford County Council's "Wild Woodlands Project" and "Wetlands Project"
- recognising and rewarding schools that have an active environment programme
- holding various competitions to promote environmental issues

#### **Households**

Wexford County Council has the following recycling infrastructure in place:

- 124 recycling sites for glass and cans (1,400 tonnes collected in 2003)
- 25 recycling sites for newspaper (506 tonnes collected in 2003)
- 15 recycling sites for plastics (71 tonnes collected in 2003)
- recycling centre at Killurin with facilities for aluminium and steel cans, glass bottles, plastic bottles, cardboard, newspaper, textiles, batteries, mobile phones, white metals, scrap metals, light bulbs, phone books, waste oil.
- recycling centre at Rosbercon, New Ross with facilities for glass, aluminium and steel cans, plastic bottles, newspaper, textiles, batteries. It also operates a shredding facility.
- 5,808 compost bins sold by December 2003 (6,331 sold by October 2004). The approximate tonnage of organic waste diverted from landfill in the year 2004, up to November 2004 was 1,743 tonnes).

### **Community Initiatives**

- An integral part of Wexford County Council's action against litter is its Anti-Litter Freephone number which was launched in May 2003. Members of the public who want to report littering or dumping incidents can call 1800 DUMPED (1800 386733).
- Community Waste Action Days were held during 2004 at different locations throughout the county. Items for collection included scrap metal, TVs/VDUs, batteries, fridges, textiles.
- Visits to Community Groups to encourage reusing, reducing and recycling waste

**Table 6.14: Summary of the Public Awareness Initiatives in each County**

	<b>Schools</b>	<b>Households</b>	<b>Commerce &amp; Industry</b>	<b>Community Initiatives</b>
<b>Carlow</b>	<ul style="list-style-type: none"> <li>• battery recycling scheme</li> <li>• schools education programme</li> <li>• green schools workshops</li> <li>• providing advice on composting and other recycling equipment for schools</li> </ul>	<ul style="list-style-type: none"> <li>• operation of 44 bring banks &amp; 3 civic amenities</li> <li>• pilot kerbside scheme</li> <li>• six recycling banks for newspaper and magazines</li> <li>• a regular household hazardous waste collection service is provided through a mobile collection service</li> <li>• subsidised compost bins</li> <li>• composting workshops</li> </ul>	<ul style="list-style-type: none"> <li>• workshops for businesses in the County</li> <li>• provide Guides for Managing Waste</li> <li>• enforcement of the Packaging Regulations</li> <li>• regular meetings with the Chamber of Commerce &amp; commercial waste clubs</li> </ul>	<ul style="list-style-type: none"> <li>• visiting youth groups outside the school environment</li> <li>• presentations to residents committees and community groups</li> </ul>
<b>Kilkenny</b>	<ul style="list-style-type: none"> <li>• battery recycling scheme</li> <li>• schools education programme</li> <li>• free compost bins</li> <li>• green schools workshops</li> <li>• developing anti-litter and environmental projects</li> <li>• fieldtrips to local waste infrastructure</li> <li>• litter campaign</li> </ul>	<ul style="list-style-type: none"> <li>• operation of 44 bring banks &amp; 1 recycling centre</li> <li>• subsidised compost bins</li> <li>• composting workshops</li> <li>• kerbside collection scheme</li> <li>• free collection of fridges and freezers at Dunmore CA until 12th August 2005</li> <li>• A regular household hazardous waste collection service is provided through a mobile collection service</li> </ul>	<ul style="list-style-type: none"> <li>• production of a Guide to packaging regulations and waste management</li> <li>• enforcement of the Packaging Regulations</li> <li>• restrictions on recyclable material going to landfill (cardboard, glass, aluminium, steel, timber, newsprint and magazines)</li> <li>• provision of an advisory service to businesses on recycling services</li> <li>• waste audits to demonstrate how waste management bills can be reduced and recycling rates increased</li> </ul>	<ul style="list-style-type: none"> <li>• distribution of composters to local communities through schools</li> <li>• community composting projects in Freshford and Piltown</li> <li>• estate management projects for County Council Estates</li> </ul>

**Table 6.14: Summary of the Public Awareness Initiatives in the County Cont'd.....**

	<b>Schools</b>	<b>Households</b>	<b>Commerce &amp; Industry</b>	<b>Community Initiatives</b>
<b>South Tipperary</b>	<ul style="list-style-type: none"> <li>• battery recycling scheme</li> <li>• schools education programme</li> <li>• provision of Compost Bins</li> <li>• Green Schools workshops</li> <li>• developing anti-litter and environmental projects</li> <li>• fieldtrips to local waste infrastructure</li> <li>• litter campaign</li> <li>• tidy schools competition</li> </ul>	<ul style="list-style-type: none"> <li>• operation of 73 bring banks &amp; 1 recycling centre</li> <li>• compost bins</li> <li>• composting workshops</li> <li>• kerbside collection scheme</li> <li>• collection of fridges and freezers</li> <li>• A regular household hazardous waste collection service is provided through a mobile collection service.</li> </ul>	<ul style="list-style-type: none"> <li>• in-house recycling scheme at local authority office offices</li> <li>• enforcement of the Packaging Regulations</li> </ul>	<ul style="list-style-type: none"> <li>• promotion of the National Spring Clean Programme</li> <li>• anti-litter grants target different sectors of the community</li> <li>• comprehensive scheme of awards including tidy burial grounds, tidy towns and villages etc.</li> <li>• assistance in terms of litter pickers/ bags/skips etc to Tidy Towns Committees</li> </ul>
<b>Waterford City</b>	<ul style="list-style-type: none"> <li>• schools education programme</li> <li>• Green Schools workshops</li> </ul>	<ul style="list-style-type: none"> <li>• operation of 23 bring banks &amp; 1 recycling centre</li> <li>• 3-bin kerbside collection scheme</li> </ul>		<ul style="list-style-type: none"> <li>• Hasbro Litter Rangers teaches children to care for their own area in Waterford City.</li> <li>• organisation of clean ups in Waterford City.</li> <li>• annual competition - make Waterford beautiful</li> </ul>
<b>Waterford County</b>	<ul style="list-style-type: none"> <li>• schools education programme</li> <li>• free compost bins and workshops on composting and vermicomposting.</li> <li>• Green Schools workshops</li> <li>• anti-litter and environmental projects</li> <li>• litter campaign</li> <li>• annual environmental awards campaign</li> <li>• annual primary schools award</li> <li>• battery recycling programmes for schools</li> <li>• Kids zone web-pages on the Council website.</li> </ul>	<ul style="list-style-type: none"> <li>• operation of 43 bring banks &amp; 3 civic amenities</li> <li>• 3-bin kerbside collection scheme</li> <li>• compost bins</li> <li>• annual environmental awards campaign</li> </ul>	<ul style="list-style-type: none"> <li>• organic waste collection</li> <li>• promotion of the Small Change Campaign</li> <li>• promotion of the Take Action at work campaign</li> <li>• Enforce Waste Packaging Regs</li> </ul>	<ul style="list-style-type: none"> <li>• annual community environment awards campaign</li> <li>• promotion of National Spring Clean</li> <li>• visits to community groups e.g. resident associations, ICA groups, gardening clubs to promote waste reduction, reuse and recycling.</li> <li>• Provide funding for anti litter and local agenda 21 sustainable projects.</li> </ul>

**Table 6.14: Summary of the Public Awareness Initiatives in the County Cont'd.....**

	<b>Schools</b>	<b>Households</b>	<b>Commerce &amp; Industry</b>	<b>Community Initiatives</b>
<b>Wexford</b>	<ul style="list-style-type: none"> <li>• battery recycling scheme in 102 schools</li> <li>• battery recycling scheme at 12 centres</li> <li>• schools education programme</li> <li>• Green Schools workshops</li> <li>• Anti-litter &amp; environmental projects</li> <li>• fieldtrips to local waste infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>• operation of 123 bring banks &amp; 2 recycling centres</li> <li>• operate 28 recycling sites for newspaper</li> <li>• operate 12 recycling sites for plastics</li> </ul>	<ul style="list-style-type: none"> <li>• Workshop for Business in the County in association with Chamber of Commerce</li> <li>• Enforcement of the Packaging Regulations</li> <li>• Restrictions on recyclable material going to landfill.</li> <li>• Promote Construction and Demolition waste recovery and recycling</li> <li>• Promote Site Waste Plans</li> <li>• Promote the use of appropriate collection permit holders and waste licensed/waste permit sites.</li> </ul>	<ul style="list-style-type: none"> <li>• promote litter management plan</li> <li>• community waste action days for collection of items including scrap metal, TVs/VDUs, batteries, fridges, textiles</li> <li>• visits to community groups to encourage reusing, reducing and recycling waste</li> <li>• Annual Keep Wexford Beautiful Competitions</li> <li>• Annual Environmental Awards</li> <li>• Subsidised Compost Bins/Promotional Campaign</li> <li>• Regular Dry Recyclable Newsletter updates</li> <li>• Telephone Help-line for Recycling at 1800 SORT IT (1800 767848)</li> <li>• Kerbside Collection Scheme</li> <li>• Waste Watch days at local hotels</li> <li>• Strategic Waste Management Programme</li> </ul>