
4. EXISTING WASTE MANAGEMENT ARRANGEMENTS

This section of the Plan describes the existing waste management infrastructure within County Kildare. As previously described in Section 3 of this document, there has been significant progress over the period 2000 – 2005 in the implementation of the Waste Management Plan, including the upgrading and establishment of waste management infrastructure throughout the County. In summary, the major developments have been:

- closure of Silliot Hill Landfill Site and development of a restoration and aftercare plan for the facility
- licensing of Silliot Hill by the EPA as an integrated waste management facility
- establishment and commissioning of two biological treatment facilities at Silliot Hill
- establishment of a temporary waste transfer facility at Silliot Hill
- finalisation of medium term arrangements for the final disposal of collected household waste, with ultimate disposal at Arthurstown landfill site
- commissioning and submission of a report on the site selection process for a new local authority residual landfill site
- roll-out of separate waste collections throughout the County
- the acquiring of waste licences for civic amenity sites at Kilcock and Athy and the construction of Athy Civic Amenity Site
- increasing the density of bring sites throughout the County
- review of expressions of interest for a materials recovery facility (MRF)

4.1. Waste Collection

4.1.1. Household Waste Collection

Waste collection in Ireland is changing rapidly, with the private sector now playing an increasingly active role in providing services to both the public and business sector. The main household waste collectors in County Kildare are:

- O'Hagan Waste Disposal (collecting approximately 24,000 bins on behalf of Kildare County Council and approximately 2,500 bins as a private operator)
- Advanced Environmental Solutions (AES)
- Thornton's Recycling
- Oxigen Environmental Ltd
- Allied Waste
- Ray Whelan

O'Hagan Waste Disposal collects all of the Council's waste on contract to the local authority. All domestic waste collected on behalf of the local authority is collected in either 140 litre or 240 litre wheelie bins. The 240 litre bin is subject to an annual charge of € 185 and a € 7 tag must be purchased thereafter. The 140 litre bin is subject to an annual charge of € 140 and a € 5 tag must be purchased thereafter. Approximately 24,000 households are served by or on behalf of Kildare County Council, with 5,500 of this total participating in a refuse charge waiver scheme.

Kildare County Council introduced a pilot separate collection service for dry recyclables (two-bin system) in April 2002 in Leixlip. Based on the success of this scheme the two-bin system was extended throughout the County with approximately 24,000 households availing of the service. In addition, the private sector has supplied circa

Private operators serve an estimated 25,000 households including Athy and Naas Town Council. A number of private collectors have also introduced a two-bin system. Table 4.1 details the main catchments for the private sector household waste collectors and the destination of the waste.

Table 4.1: Private Sector Waste Collection for Household, Commercial and Industrial Waste in County Kildare

| Name of Operator | No of Households Serviced | No of Households with 2-Bin Collection | Origin of Waste | Destination of Waste |
|----------------------------------|---------------------------|--|--|---|
| O'Hagan Waste Disposal | 27,370 | 26,540 | <ul style="list-style-type: none"> throughout Kildare | <ul style="list-style-type: none"> Silliot Hill IWMF Thorntons Recycling, Dublin |
| Advanced Environmental Solutions | 8,170 | 7,510 | <ul style="list-style-type: none"> throughout Kildare | <ul style="list-style-type: none"> Kyletalesha Landfill (Portlaoise) |
| Thornton's Recycling | 2,699 | 2,699 | <ul style="list-style-type: none"> North Kildare | <ul style="list-style-type: none"> Thornton's Recycling, Dublin KTK Landfill, Kilcullen Arthurstown Landfill |
| Oxigen Environmental Ltd | 8,798 | 7,621 | <ul style="list-style-type: none"> Kill Naas Newbridge Clane | <ul style="list-style-type: none"> Dublin |
| Allied Waste | 995 | 995 | <ul style="list-style-type: none"> Maynooth Leixlip Kilcock | <ul style="list-style-type: none"> KTK Landfill Mullingar |
| Ray Whelan | 340 | - | <ul style="list-style-type: none"> Athy Castledermot | <ul style="list-style-type: none"> Powerstown Landfill, Co. Carlow |

In accordance with the national policy document "Waste Management Taking Stock – Moving Forward" published by the Minister for the Environment, Heritage and Local Government in April 2004, Kildare County Council introduced a system of weight/volume charging system for domestic refuse in 2005. When issuing waste collection permits, it is the Council's policy that only pay-by-tag, pay-by-lift or pay-by-weight will be acceptable pay by use systems. A single flat charge is no longer acceptable.

4.1.2. Commercial and Industrial Waste Collection

Waste arising from the commercial and industrial sector is collected by private waste contractors. The main contractors collecting this waste are outlined in Table 4.1, above.

4.2. Local Authority Waste Management Facilities

At present there is one publicly owned waste transfer station and two civic amenity sites within the County. A brief description of each of these facilities, among others, is provided below. The facilities are:

- Silliot Hill Waste Transfer Station
- Silliot Hill Civic Amenity Site
- Athy Civic Amenity Site
- Kilcock Civic Amenity Site
- Silliot Hill Sludge Treatment Facility
- Silliot Hill In-Vessel Composting Area (Greenstar)
- bring sites
- landfill facilities

4.2.1. Silliot Hill Waste Transfer Station

Kildare County Council operates a temporary waste transfer station at Silliot Hill with a licenced capacity of 60,000 tonnes per annum, as shown in Figure 4.1. The transfer station was opened in 2001 to facilitate the transportation of waste to Thornton's Recycling Ltd in Dublin for baling, and from there to Arthurstown landfill for disposal. Charges for waste entering the site are based on weight.

Table 4.2 details the monthly waste loads to and from the facility throughout 2003. The table shows the quantities of waste processed from the waste transfer station and transferred to the baling station in Dublin. In 2003, 39,095 tonnes of waste was compacted for transfer to Dublin. The remaining 7,165 tonnes were recovered.

The 'bulky waste' item refers to waste recovered from the transfer station which was unsuitable for baling and transferred to the nearby KTK landfill for disposal. This amounted to 1,870 tonnes in 2003. Bulky items will be shredded at the transfer station from 2005. It is noted that 12,456 tonnes of waste generated in north County Kildare did not pass through Silliot Hill but went directly to the baling station in 2003.



Figure 4.1: Waste Transfer Station at Silliot Hill

Table 4.2: Summary of Waste Recovered and Disposed from Silliot Hill Integrated Waste Management Facility 2003 (tonnes)

| WASTE TYPE | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEPT | OCT | NOV | DEC | TOTAL |
|----------------------------|---------------|---------------|---------------|----------------|----------------|---------------|----------------|---------------|----------------|----------------|----------------|----------------|------------------|
| Scrap Metal | 50.95 | 0 | 57.33 | 55.8 | 36.7 | 26.42 | 48.01 | 40.97 | 33.95 | 25.61 | 31.64 | 40.93 | 448.31 |
| Bottles | 12.95 | 2.56 | 4.81 | 5.55 | 4.9 | 2.82 | 8.1 | 8.55 | 7.43 | 4.74 | 3.87 | 2.98 | 69.26 |
| Batteries | 1.38 | 0.88 | 0.76 | 3.47 | 0.7 | 1.15 | 0 | 1.76 | 1.96 | 2.8 | 2.41 | 0 | 17.27 |
| Clothes | 0.81 | 0.41 | 0.32 | 0.4 | 0.54 | 0.82 | 0.59 | 1.34 | 0.81 | 0.59 | 0.76 | 0.35 | 7.74 |
| Flat Glass | 1.81 | 0 | 4.74 | 2.74 | 0 | 4.81 | 4.04 | 4.2 | 0 | 4.37 | 4.08 | 0 | 30.79 |
| Shredded Paper | 0.25 | 40.22 | 59.49 | 36.13 | 5.92 | 40.1 | 0.33 | 13.28 | 4.47 | 18.3 | 5.85 | 13.43 | 237.77 |
| Cans | 0.77 | 0.57 | 1 | 0.83 | 0.79 | 0.83 | 0 | 0.76 | 1.25 | 0.39 | 0.91 | 0.44 | 8.54 |
| Electrical | 12.38 | 22.97 | 11.26 | 34.26 | 54.6 | 23.63 | 31.65 | 21.3 | 20.42 | 21.49 | 28.78 | 20.43 | 303.17 |
| Cardboard | 20.6 | 20.37 | 17.65 | 17.56 | 11.21 | 17.82 | 23.75 | 17.39 | 10.61 | 18.62 | 20.02 | 21.31 | 216.91 |
| Compost | 273.2 | 112.11 | 104.09 | 172.26 | 128.52 | 252.66 | 222.15 | 224.36 | 214.25 | 203.72 | 233.22 | 118.11 | 2258.65 |
| Shredded Greens | 0 | 0.28 | 0.6 | 0.34 | 0 | 0 | 0 | 0 | 0 | 27.53 | 0.41 | 0.32 | 29.48 |
| Waste Oil | 0 | 2.22 | 0 | 0.86 | 0 | 0 | 1.15 | 0 | 0 | 0 | 1.23 | 0 | 5.46 |
| Light Tubes | 0 | 0.07 | 0 | 0 | 0.01 | 0 | 0.06 | 0 | 0 | 0.07 | 0 | 0 | 0.21 |
| Gas Cylinders | 0 | 0.41 | 0 | 0 | 0.33 | 0 | 0.39 | 0.99 | 0.15 | 1.82 | 0 | 3.83 | 7.92 |
| Household Hazardous | 0 | 2.71 | 0 | 0 | 0 | 3.24 | 0 | 3.59 | 0 | 3.39 | 0 | 0 | 12.93 |
| Inert Waste | 0 | 118.28 | 292.38 | 79.12 | 0 | 156.88 | 61.79 | 58.68 | 0 | 0 | 112.04 | 0 | 879.17 |
| Newsprint | 0 | 21.81 | 8.17 | 14.54 | 7.11 | 7.72 | 13.21 | 8.09 | 10.22 | 8 | 18.91 | 7.93 | 125.71 |
| Plastics | 0 | 0 | 10.72 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 20.72 |
| Compost (Jones) | 0 | 0 | 632.75 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 632.75 |
| Oil Filters | 0 | 0 | 0 | 0 | 0 | 0.56 | 0 | 0 | 0 | 0 | 0.26 | 0 | 0.82 |
| Ink Cartridges | 0 | 0 | 0 | 0 | 0 | 0.04 | 0 | 0 | 0 | 0 | 0 | 0 | 0.04 |
| Food Waste (Greenstar) | 0 | 0 | 0 | 0 | 0 | 14.53 | 15.34 | 0 | 0 | 0 | 0 | 0 | 29.87 |
| Totals | 1683 | 1494.4 | 2031.5 | 581.81 | 946.13 | 904.23 | 790.45 | 685.83 | 580.11 | 800 | 1180.33 | 832.1 | 12509.95 |
| Waste to Baling Station | 3723.2 | 3196.7 | 3280.1 | 3471.61 | 3434.37 | 3341.19 | 3535.29 | 3022.77 | 2877.14 | 3151.74 | 2990.72 | 3070.45 | 39095.3 |
| Waste to KTK | 88.69 | 121.5 | 168.18 | 170.84 | 179.06 | 165.26 | 199.2 | 167.9 | 165.29 | 176.3 | 122.8 | 145.83 | 1870.85 |
| Waste Direct to Baling Stn | 976.39 | 790.99 | 936.91 | 1070.31 | 1054.06 | 1000.15 | 1182.23 | 1050.03 | 1118.95 | 1167.48 | 965.99 | 1143.36 | 12456.85 |
| Totals | 4788.3 | 4109.2 | 4385.2 | 4712.76 | 4667.49 | 4506.6 | 4916.72 | 4240.7 | 4161.38 | 4495.52 | 4079.51 | 4359.64 | 46,256.54 |

4.2.2. Silliot Hill Civic Amenity Site

Kildare County Council has established a civic amenity site at the Integrated Waste Management Facility at Silliot Hill (Waste Licence Register No. 14-1). The civic amenity site has a number of recycling receptacles, as follows:

- glass bottles
- aluminium cans
- textiles
- paper
- green waste
- gas cylinders
- white goods
- household hazardous waste
- electronic goods
- plate glass
- scrap metals & cars
- tyres
- car batteries
- waste oil
- plastics

The “polluter pays” principle operates at the site whereby household recyclables are not tolled. These items include glass bottles, plastic bottles, cans and paper. Waste electrical and electronic goods are accepted free of charge in line with the new WEEE Directive. Bulky recyclables are tolled at a reduced rate. These items include tyres and scrap metal. Residual waste taken to the transfer station is charged at the full disposal rate.

Proposals for the re-organisation of the civic amenity site were submitted to the EPA in 2004 for approval. The upgrade of the civic amenity site is due for completion at the end of 2005.

The quantity and composition of material received for recovery at the facility from 1999 to the end of the 2003 reporting period is outlined in Table 4.3.

Table 4.3: Summary of Recyclables Recovered (Tonnes) from Facility (1999-2003)

| Material | 1999 | 2000 | 2001 | 2002 | 2003 |
|---------------------|----------------|-----------------|--------------|----------------|-----------------|
| Shredded Greens | 103.62 | 103.49 | 58.23 | 72.2 | 29.48 |
| Scrap Metal | 382.74 | 653.96 | 392.9 | 472.9 | 448.31 |
| Bottles (&Cans) | 8.57 | 16.08 | 15.5 | 46.01 | 69.26 |
| Cans | -- | -- | -- | -- | 8.54 |
| Batteries | 2.36 | 4.55 | 7.8 | 12.1 | 17.27 |
| Glass Flat | -- | 4.32 | 19.26 | 8.09 | 30.79 |
| Cardboard | 69.06 | 168.74 | 158.37 | 187.99 | 216.91 |
| Newsprint | -- | 47.01 | 51.0 | 39.57 | 125.71 |
| Shredded Paper | -- | -- | -- | -- | 237.77 |
| Waste Oil & Filters | 8.17 | 3.91 | 1.9 | 3.5 | 6.28 |
| Electrical Goods | -- | 0.22 | 63.86 | 201.55 | 303.17 |
| Gas Bottles | -- | 2.03 | 0.1 | 0.69 | 7.92 |
| Clothes | -- | 4.61 | -- | 4.28 | 7.74 |
| Household Hazardous | -- | -- | -- | -- | 12.93 |
| Plastics | -- | -- | -- | -- | 20.72 |
| Ink Cartridges | -- | -- | -- | -- | .04 |
| Tyres | -- | 0.71 | -- | -- | -- |
| Totals | 574.520 | 1009.630 | 738.9 | 1048.88 | 1,542.84 |

4.2.3. Athy Civic Amenity Site

Athy Civic Amenity Site was issued with a waste licence (Waste Licence Register No. 175-1) in October 2003 by the EPA. The site is licenced to receive 5,500 tonnes of waste per annum. The facility is licenced for the recovery and/or disposal of the following waste:

- municipal solid waste
- glass
- glass bottles
- aluminium cans
- paper
- cardboard
- plastics
- textiles
- timber
- DIY waste
- construction and demolition waste
- green waste
- tyres
- scrap metal
- white goods
- electronics
- fluorescent tubes
- batteries and accumulators
- waste oil
- oil filters
- paints, inks, adhesives and resins
- household chemicals
- agrochemical waste

The facility has been constructed, and is due to open in 2005, as shown in Figure 4.2.



Figure 4.2: Athy Civic Amenity Site

4.2.4. Kilcock Civic Amenity Site

A waste licence was issued for Kilcock Civic Amenity Site in July 2003. Work on the construction of the site is expected to begin in 2006, subject to funding.

4.2.5. Sludge Treatment Facility – Silliot Hill

A sludge treatment facility was constructed at the Silliot Hill Integrated Waste Management Facility, as shown in Figure 4.3. It is licenced to accept 2,000 tonnes per annum dry solids (tDS). The facility was constructed for the composting of stabilised sludge from Osberstown and Leixlip Waste Water Treatment Plants.

The sludge treatment facility ceased accepting in November 2002. Wood bark/mulch was introduced into the system to keep the process active in December 2002/January 2003. Full-scale treatment of sludge has not resumed. It is proposed to recommence operations at the facility for the composting of municipal biodegradable waste in 2005. The facility will treat 11,000 tonnes of waste per annum.



Figure 4.3: Sludge Treatment Facility at Silliot Hill (Source TEG)

4.2.6. Greenstar In-Vessel Composting Area at Silliot Hill

Kildare County Council entered into a contract with SITA Recycling Ltd. (now Greenstar) for the operation of a pilot in-vessel composting facility at Silliot Hill Integrated Waste Management Facility, as shown in Figure 4.4. The technology used is the vertical compost unit system (VCUs). Four units are in operation at Silliot Hill. With a 14-day cycle, the units can process 115 tonnes of food waste in that period (or 2,600 tonnes of food waste per annum). An additional 2,600 tonnes of green waste is used annually in this process as amendment material.

Table 4.4 details the waste intake volumes used in the in-vessel composting facility in 2003.



Figure 4.4: Greenstar – Vertical Composting Unit (VCU) at Silliot Hill

Table 4.4: Summary of Waste Intake at Greenstar In-Vessel Composting Facility in 2003

| Month | KCC Green Waste | Wood Chippings | Green Waste | Food Waste | White Bark | TOTAL |
|--------------|-----------------|----------------|---------------|-----------------|--------------|-----------------|
| January | 21.03 | 45.71 | 45.54 | 72.01 | 14.14 | 198.43 |
| February | 8 | 44.33 | 0 | 74.77 | 0 | 127.1 |
| March | 23.35 | 20.59 | 0 | 78.68 | 0 | 122.62 |
| April | 13.4 | 41.53 | 0 | 111.66 | 0 | 166.59 |
| May | 13.95 | 39.7 | 16.95 | 133.98 | 0 | 204.58 |
| June | 19.97 | 67.24 | 67.23 | 133.87 | 0 | 288.31 |
| July | 22.78 | 87.24 | 17.27 | 196.32 | 0 | 323.61 |
| Aug | 29.57 | 26.21 | 87.63 | 134.76 | 0 | 278.17 |
| Sept | 17.29 | 90.72 | 28.41 | 169.05 | 0 | 305.47 |
| Oct | 17.19 | 60.49 | 50.4 | 165.85 | 0 | 293.93 |
| Nov | 16.95 | 43.75 | 41.39 | 148.05 | 0 | 250.14 |
| Dec | 7.19 | 55.85 | 82.59 | 169.19 | 0 | 314.82 |
| TOTAL | 210.67 | 623.36 | 437.41 | 1,588.19 | 14.14 | 2,873.77 |

*All quantities in tonnes

29.48 tonnes of shredded greens were not process and removed off-site as indicated in Table 4.3.

A total of 2,258 tonnes of compost were recovered from this facility in 2003.

4.2.7. Bring Sites

There are currently 40 bring banks within the County which collect glass and cans as shown in Table 4.5.

Table 4.5: Location of Bring Banks in County Kildare

| Town | Location | Glass | Cans | Textiles |
|-------------------------------|---|-------|------|----------|
| Allenwood | Allenwood GAA Club | Yes | Yes | No |
| Athy | Edmund Rice Square Carpark Scoil Mhuire/Scoil Eoin, Rathstewart | Yes | Yes | Yes |
| Ballymore Eustace | Paddy Murphy Public House Carpark | Yes | No | No |
| Barrettstown | Barrettstown Gang Camp | Yes | Yes | No |
| Broadford | Carpark | Yes | Yes | No |
| Brownstown | Brownstown Inn | Yes | Yes | No |
| Castledermot | Copes Carpark | Yes | Yes | Yes |
| Celbridge | GAA Carpark (Hazelhatch Road) Setanta House Hotel Tesco Carpark | Yes | Yes | No |
| Clane | Londis Carpark | No | No | Yes |
| | Clane Health & Leisure Club | Yes | Yes | No |
| | GAA Club | Yes | Yes | Yes |
| Coill Dubh | Dag Welds Carpark | Yes | Yes | No |
| Derrinturn | Carpark | Yes | Yes | No |
| Kilcock | GAA Club | Yes | Yes | No |
| Kill | Dew Drop Inn | Yes | Yes | No |
| Leixlip | Catholic Church Carpark Leixlip Amenity Centre | Yes | Yes | No |
| Maynooth | Tesco Carpark Council Carpark beside Glenroyal | Yes | Yes | No |
| Monasterevin | Beside firestation | Yes | Yes | No |
| Naas | Swan Dowlings Carpark | Yes | Yes | No |
| | Council Carpark | Yes | Yes | No |
| | Friary Road Carpark | No | No | Yes |
| | Tesco Carpark | Yes | Yes | Yes |
| Newbridge | Dunnes Stores Carpark | Yes | Yes | Yes |
| | Sports Centre | Yes | Yes | No |
| | Tesco Car Park | Yes | Yes | Yes |
| Nurney | Opposite school | Yes | Yes | Yes |
| Prosperous | Behind Larry's Bar | Yes | Yes | No |
| Rathangan | New St., beside church | Yes | Yes | Yes |
| Robertstown | Beside Hotel | Yes | Yes | No |
| Silliot Hill Recycling Centre | Naas-Kilcullen Road | Yes | Yes | Yes |
| Staplestown | St. Kevin's GAA Club | Yes | Yes | No |
| Staplestown | Staplestown National School | No | Yes | No |
| Traffan | Community Hall | Yes | Yes | No |
| Tiermohan | Tiermohan National School | No | Yes | No |
| Timahoe | Kellys Carpark | Yes | Yes | No |

4.2.8. Landfill Facilities

Since the closure of Silliot Hill Landfill in March 2002, Kildare County Council does not operate a landfill within the County. Kildare County Council completed the site selection process for a new, engineered residual site in 2000, with “a preferred the site” been identified. There have been a number of proposals from private operators which are currently going through the statutory process of planning and licensing. Consequently, a final decision from Kildare County Council on the provision of a new facility is on hold.

South Dublin County Council operates Ireland's largest landfill at Arthurstown, Kill, Co. Kildare. The facility is licenced to dispose of 600,000 tonnes per annum under the current waste licence (Licence 4-3). Under Condition 1 of An Bord Pleanala's planning permission for the site (ref 09.204665) states “The landfill facility shall be used for the disposal of baled municipal waste originating in the Dublin and Kildare administrative jurisdictions only and this use shall cease no later than the 21st December, 2007”.

4.3. Private Sector Waste Management Infrastructure

Table 4.6, Table 4.7, and Table 4.8 detail the different types of waste management infrastructure which is licenced by the EPA in County Kildare. All of these developments have been established by the private sector.

Table 4.6: Privately Operated Waste Transfer Stations

| Name of Facility | Operator | Waste Type | Licence | Annual Waste Input (Tonnes) | Current Status |
|---|--|---|-------------------------|-----------------------------|-----------------------------------|
| Yellow Bins (Waste Disposal Limited) Caragh | Yellow Bins (Waste Disposal) Ltd | household, commercial, C&D and industrial | Licence Ref. No. 114-1 | 60,000 | closed; licence being surrendered |
| Westside Waste, Maynooth | Thorntons (formally Brivin Enterprise Ltd) | municipal, industrial & C&D | Licence Ref. No. 162.-1 | 70,000 | closed |

Table 4.7: Privately Operated Recovery Facilities

| Name of Facility | Operator | Waste Type | Licence | Annual Waste Input (Tonnes) | Current Status |
|-------------------------------------|---------------------|--|-----------------------|-----------------------------|--|
| Returnbatt Limited | Returnbatt Limited | hazardous – mainly batteries | Licence Ref No. 105-1 | 7,000 | licenced surrendered. relocated operations, now operating under waste permit |
| Carbury Mushrooms | Carbury Mushrooms | compost- horse manure & poultry manure | Licence Ref No. 124-1 | 56,600 | active |
| Bord Na Móna Kilberry | Bord Na Móna | non-hazardous biodegradable | Licence Ref No: 198-1 | 96,000 | active |
| Neiphin Trading | Neiphin Trading Ltd | C&D, commercial & industrial | Licence Ref No. 47-1 | 447,000 | active |
| KTK Sand & Gravel Limited Kilcullen | Greenstar | Gas-to-Energy Facility | Licence Ref No. 81-1 | - | Active. Not at full capacity yet. |
| Silliot Hill IWMF | Greenstar | In-vessel Composting Facility | Licence Ref No. 14-1 | 5,200 | Active |

Table 4.8: Privately Operated Landfills

| Name of Facility | Operator | Facility Type | Waste Type | Licence | Annual Waste Input (Tonnes) | Current Status |
|--|------------------------|---------------|--|-----------------------|---|----------------|
| KTK Sand & Gravel Limited, Kilcullen | Greenstar | Landfill | commercial, industrial & C&D | Licence Ref No. 81-1 | 275,000 | active |
| KTK Sand & Gravel Ltd, Ballymore Eustace | KTK Sand & Gravel Ltd. | Landfill | inert | Licence Ref No. 156-1 | 242,000 | active |
| Neiphin Trading | Neiphin Trading Ltd | IWMF | construction & demolition, commercial & industrial | Licence Ref No. 47-1 | 183,000 (landfill) & 447,000 (recovery) | active |

Figure 4.6, overleaf, details the location of the existing facilities within the County.

4.4. Waste Collection Permits

To date 250 waste collection permits have been issued by Kildare County Council. A large number of these permits are currently under review.

4.5. Waste Permits

In addition the Council has received 185 waste permit applications of which 117 have been granted. A breakdown of the permits which have been granted by Kildare County Council is detailed in Figure 4.5, below.

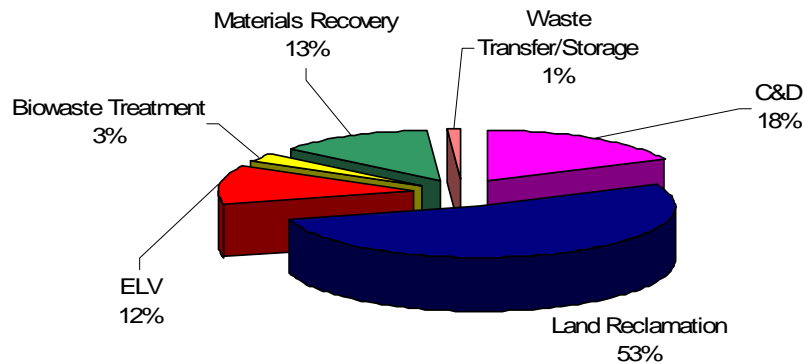
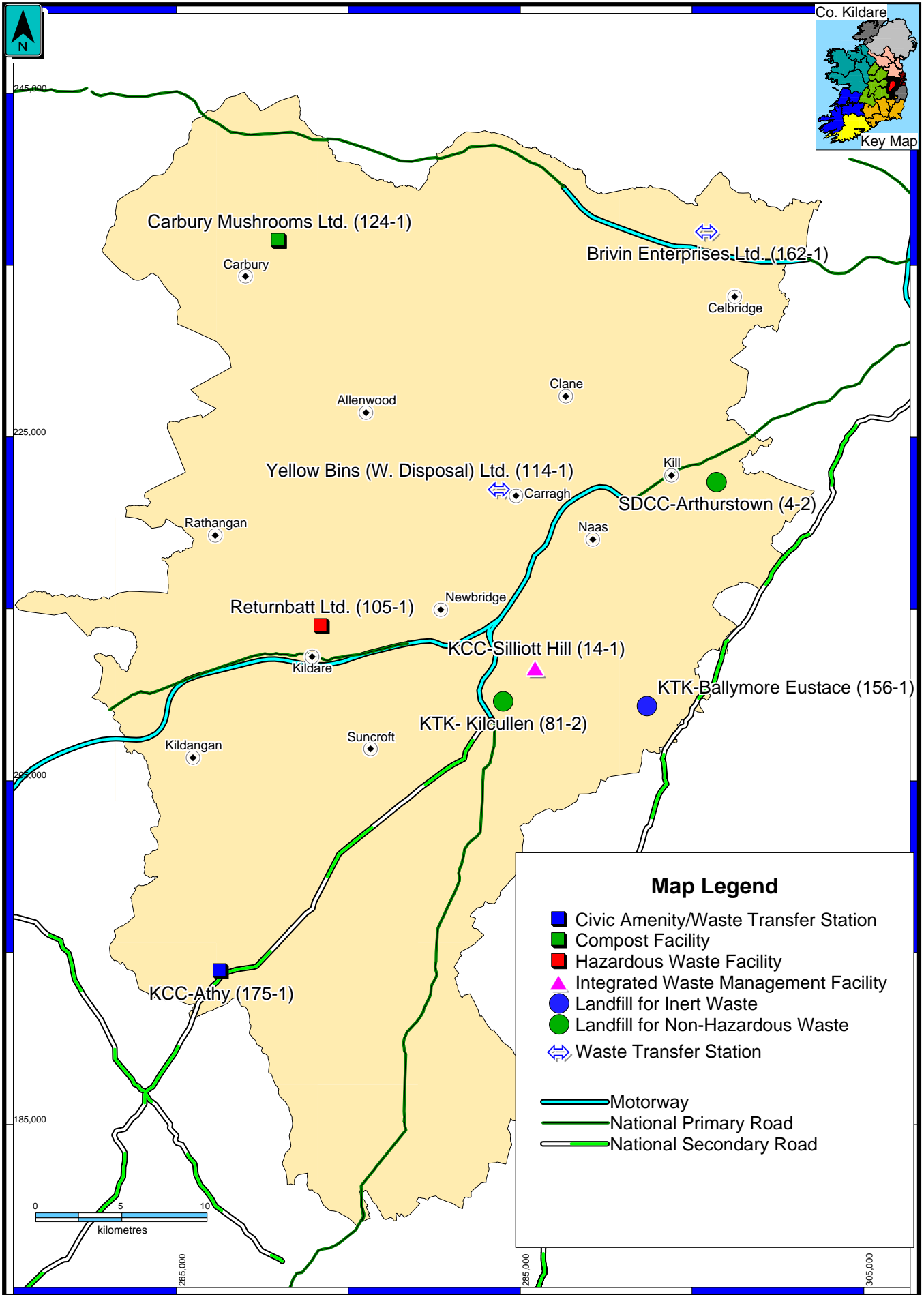


Figure 4.5: Categories of Waste Permits Issued in County Kildare (Source: EPA)



Existing Waste Management Infrastructure

4.6. Proposals for New Facilities within the County

Since the adoption of the Waste Management Plan, a significant change has occurred in the approach to waste management by private sector companies in County Kildare. A number of applications for new facilities have been submitted to the EPA and Kildare County Council. The current status of these applications is outlined in Table 4.9.

Table 4.9: Proposed New Private Waste Management Facilities

| Location | Operator | Facility Type | Waste Accepted | Status of Application |
|---------------|---|-----------------------|-----------------------------------|---|
| Straffan | O' Hagan Waste Disposal | transfer station | skip waste | The site is permitted. A Planning application for an extension has been submitted to Kildare County Council. |
| Usk, Dunlavin | Greenstar | landfill | commercial industrial & municipal | The facility has been licenced by the EPA to landfill 180,000t of non-putrescible, non-hazardous commercial, industrial & residual municipal waste. A further 20,000 tonnes of C&D waste can be recovered at the site. Planning permission was refused by Kildare County Council and appealed to An Bórd Pleanála. A decision is awaited. |
| Calf Field | Padraig Thornton Waste Disposal Limited | IWMF* | municipal | An application for dry recyclables sorting facility, bio diesel facility, wood recycling, tyre treatment, end of life vehicle processing facility & residual landfill (220,000 tpa). Facility has applied for a waste licence. Planning Permission was granted by Kildare County Council. An Appeal to An Bórd Pleanála was refused. |
| Drehid | Bord Na Móna | landfill & biological | municipal | An application for a residual landfill (120,000 tpa) & biological treatment facility (25,000 tpa). The EPA issued a waste licence for the facility in August 2005 and planning permission for the site was granted by An Bord Pleanála. |

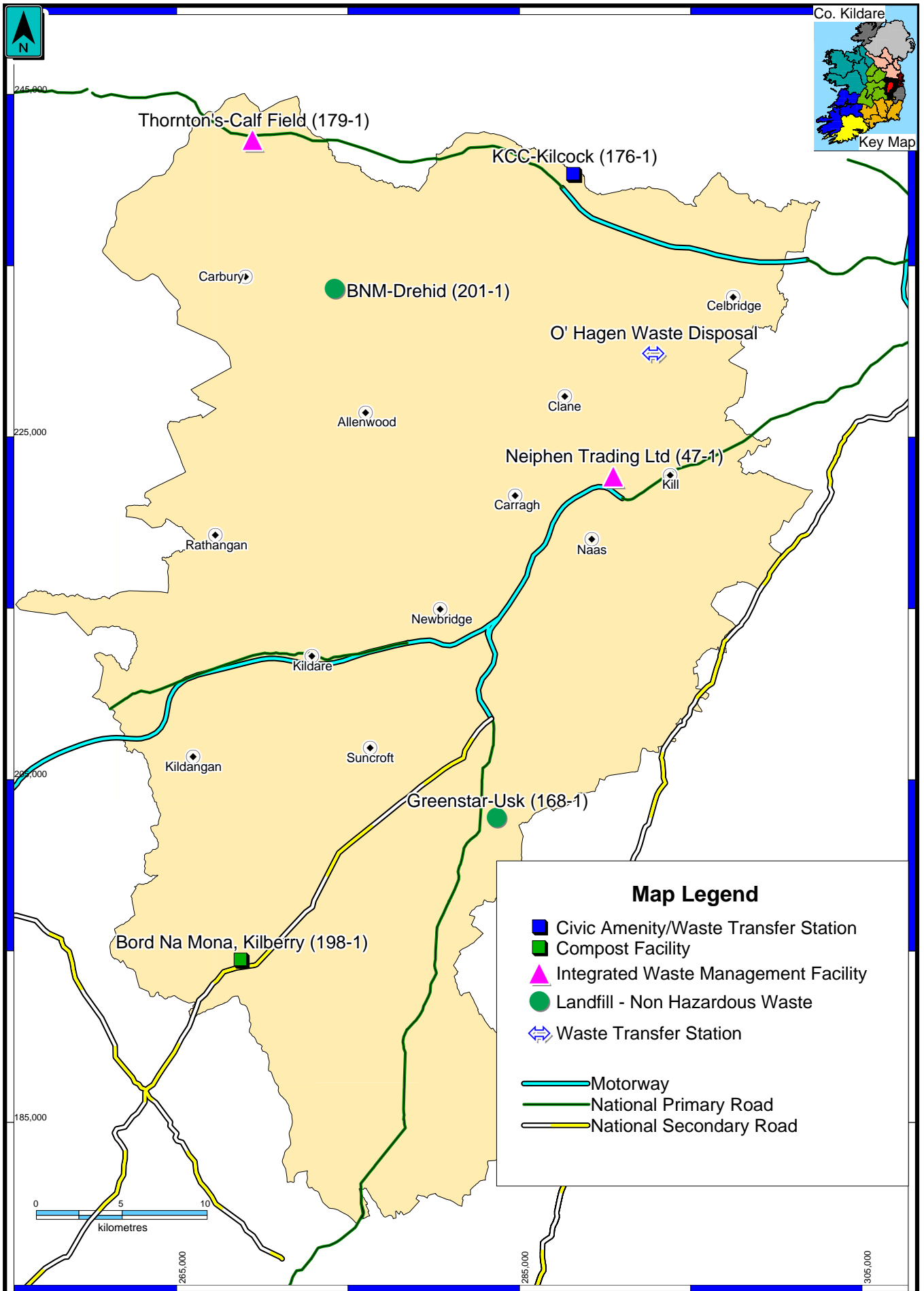
*IWMF – Integrated Waste Management Facility

**Applied means licence under EPA consideration

Figure 4.7, overleaf, details the locations of the proposed waste management infrastructure for County Kildare.

4.7. Disposal Facilities Outside County Kildare

Based on the constraints associated with the planning permission for Arthurstown landfill and the waste-type restriction for KTK landfill, Kildare County Council has access to landfill facilities for approximately 2.5 years. Proposals for privately operated facilities within the County are not likely to be available for two to three years, assuming that the statutory processes are successful. An assessment of neighbouring facilities for short-term, medium-term and long-term disposal capacity has been assessed and summarised in Table 4.10.



Proposed Waste Management Infrastructure

Table 4.10: Status of Developments in Adjoining Waste Regions

| Authority/ Developer | Status | Short-Term Disposal Potential for County Kildare 0 - 5 | Medium- Term Disposal Potential for County Kildare 5 - 10 | Long-Term Disposal Potential for County Kildare >10 |
|-------------------------|---|---|---|--|
| Dublin Region | Arthurstown Landfill serves the Dublin Region. A proposed thermal treatment facility at Ringsend and a landfill at Fingal are in the tender process. | Refer to Section 4.2.8 | Minimal | Good |
| Wicklow | The private sector is building a residual landfill at Ballynagran. The facility is licenced and due for completion in late 2006. Wicklow County Council has received a waste licence review for Rampere landfill. | Good | Good | Minimal |
| Midlands | Laois, Longford, North Tipperary, Offaly and Westmeath are part of the Midland Region Waste Management Plan. Of the landfills located in the Region, four landfills are operated by local authorities, mainly accepting municipal household, commercial and industrial waste. These are Kyletalesha (Laois), Derryclure (Offaly), Ballydonagh (Westmeath) and Ballaghveny Landfill (Tipperary). Three other landfills accept inert waste or ash waste generated at local ESB power generation facilities. Annaskinnan Landfill (Westmeath) received a licence in June 2005 for 175,000 tpa. | Good | Minimal - Good | Good |
| South East Region | The South East Region includes Carlow, Kilkenny, Tipperary South, Waterford City and County and Wexford. These authorities are part of Joint Waste Management Plan for the South East Region. Based on existing tonnage, the landfill capacity within the region is 2 – 3 years. There are three proposals for new landfills in Tipperary and Waterford and Holmestown. Powerstown landfill has received a review of its licence to construct an additional 4 cells.. The Region has also appointed a Client's Representative for the procurement of a thermal treatment facility. | None | Minimal - Good | Good |
| North East | A private operator has constructed a residual landfill at Knockharley & this is in operation since 2004. A privately-operated thermal treatment facility at Carranstown has received planning and a PD licence. These two facilities can only accept waste that is generated within the region. The operators of both facilities are appealing the condition which does not allow them to accept waste outside of the region*. Monaghan (Scotch Corner), Whiteriver (Louth) and Cavan (Corranure) have ample landfill capacity for waste generated within the region. | Good | * | * |

* dependent on a successful outcome in the statutory process

4.8. Arrangements for Key Waste Streams

The extent of collection and recycling of the individual waste fractions in the County is described below, categorised as follows:

- glass
- paper/cardboard
- drink cans
- other metals
- plastic
- farm plastic
- waste oil
- batteries
- textiles
- wood
- used beverage cartons

4.8.1. Glass

Glass is collected throughout the County from bottle banks located at shopping centres, filling stations and other bring bank sites. However, under glass management programmes, some commercial outlets such as pubs, restaurants, etc., have their glass collected. The main operator of glass recycling in Kildare is the Rehab Recycling Partnership. Rehab report that, nationally, 24,000 tonnes of bottles and jars were collected from bring centres in the first eight months of 2004. This is an increase of 24 % compared to the same period in 2003.

The current Irish glass manufacturing industry seems to have sufficient extra capacity to accept short to medium-term increases in volumes of good quality cullet. Small quantities of flat glass are recovered from commercial sources, but container glass is the main type of glass recovered in Ireland. Currently, flat glass is being exported to the UK and France for recycling.

There are three companies in Ireland that reprocess container glass waste. One company creates glass fibre products while the other two manufacture glass containers. Other potential outlets for glass include industrial abrasives; glass wool products; construction aggregate; filtration media; landscaping and Portland Cement.

4.8.2. Paper/Cardboard

At present, the civic amenity site at Silliot Hill is the only collection point within the County for paper/cardboard other than the two-bin system. The paper/cardboard collected at Silliot Hill is compacted and baled on-site and transported to Central Waste Limited in Dublin (part of the Smurfit Group). Both Athy and Kilcock Civic Amenity Sites will accept paper/cardboard once operational.

There are a number of self-compliers in the County, under the Packaging Regulations. A self-complier must be certified by the relevant local authority. The self-compliers in County Kildare are:

- | | |
|----------------------------|---|
| • Amalgamated Hardware Ltd | Naas Industrial Estate, Naas, Co. Kildare |
| • Supermacs Ireland Ltd | Main St. Maynooth. Co. Kildare |
| • Supermacs Ireland Ltd | Emily Square, Athy, Co. Kildare |
| • QK Meats | The Maudlins, Naas, Co. Kildare |
| • Dawn Farm Foods Ltd | The Maudlins, Naas, Co. Kildare |
| • Boran Plastic Packaging | Johnstown, Naas, Co. Kildare |

Only a small percentage of paper is recycled in Ireland. Despite this, paper is the largest waste stream of municipal solid waste. It is estimated that 30 companies are involved in the waste paper recovery industry in Ireland.

Public Private Partnerships between local authorities and waste management/recovery companies organise the collection of most of the newsprint in Ireland. Paper/cardboard is being collected from households through separate collection schemes.

Commercial cardboard is banned from landfills by several local authorities. There are a few separate collection schemes being run by a number of local authorities for commercial cardboard. There is one paper mill in Ireland that accepts cardboard. The 30 companies involved in the recovery of cardboard supply this mill, or mills abroad - mainly in the UK and Spain, but also in the Far East.

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

4.8.3. Drink Cans

Drink cans are collected throughout Kildare from can banks and separate household collections operated by the Council and private operators. The main operator within Ireland for can recycling is the Rehab Recycling Partnership. Intel is currently collecting drink cans from schools throughout the County. All cans are exported, mostly to the UK.

4.8.4. Other Metals

A high proportion of the scrap metal produced by industry in the County is recycled. Scrap merchants in Kildare, transport the scrap metal to metal refining centres throughout the country, including:

- Metal Recycling Ltd
- South East Metal Company Ltd
- Hegarty Metals Recycling
- Galway Metal Company
- Munster Metals

It is estimated by the EPA that there are 30 companies involved in the collection and processing of waste ferrous metals in Ireland. The non-ferrous metals recycled in Ireland include, lead, nickel, brass, silver, stainless steel and tin. Lead is recovered by one lead smelter for reprocessing.

4.8.5. Plastic

The principal difficulty in the collection of plastics is the collection of economic quantities of the material.

The EPA has reported that there are currently 22 companies in Ireland involved in the plastics recovery industry. Of the 15,000 tonnes of waste plastic collected in the Republic of Ireland in 2000, approximately 8,300 tonnes were recycled here. Scotland received the farm plastic for recycling, of which there was 6,300 tonnes. The remainder of the plastic was exported to Africa, China, UK and mainland Europe.

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

According to EU targets, 85 % of end-of-life vehicles (ELV) have to be re-used or recovered by 2006. To achieve this target there will have to be an increase in the ELV-derived plastics recovered (ENDS Report 347, pp 17).

The Waste and Resources Action Programme (WRAP) in the UK has started a competition for grants to produce infrastructure to recycle plastic bottles. 50 % of each project's total value is to be awarded to successful bidders (ENDS Report 325, pp 18). Other initiatives include the Vinyl 2010 Group. This is a voluntary group made up of the main manufacturers of PVC in Europe. The aim of this group is to increase the recycling rate for post-consumer PVC waste from its current rate of 2 – 3 % to 10 – 15 % by 2010 (ENDS Report 340, pp 20).

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

4.8.6. 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.

Initiatives in the UK for the recycling of farm plastic include the introduction of draft regulations placing a ban on the burning of "non-natural" agricultural wastes to encourage an increase in the recycling of the plastics. (ENDS Report 354, pp 22)

4.8.7. Waste Oil

- There are a number of operators within the County operating a collection service for waste oil, including:
 - Cara Environmental Technology Ltd.
 - Atlas Oil Environmental Ltd.
 - Rabbitte Catering Ltd.
 - SITA Ireland Ltd.
 - Hammond Lane Metal Company
 - Michael Finaly
- Waste oil is collected from garages and civic amenity sites as well from as various industries throughout the County.
- Cooking and vegetable oil is currently collected at Silliot Hill Integrated Waste Management Facility. There is a permitted facility at Castledermot in Co. Kildare for the recovery of cooking and vegetable oil. Cooking Oil will be collected at Athy and Kilcock civic amenity sites once operational.

4.8.8. Batteries

Batteries are currently collected at the Silliot Hill Civic Amenity Site. They will also be collected at Athy and Kilcock Civic Amenity Site. Returnbatt Ireland is the main collector of batteries within Ireland. These batteries are exported to the UK and Europe for recycling.

The European Commission issued a proposed Directive in November 2003, which proposes that 160 g of portable batteries per person per year is to be recovered for recycling. This proposed target is to be met within the next four years. It is also proposed that industrial and automotive batteries be prevented from going to landfill or incinerators.

It recommends that portable batteries be collected from separate collection points or from retailers or public buildings (ENDS Report 355).

Britain's first battery recycling plant is to open in 2005 with a capacity to recycle 500,000 cells (1,500 tonnes of alkaline and zinc carbon batteries). The plant, however, will not have the capacity to recycle the number of batteries required by the proposed Directive. (ENDS Report 354, pp 21).

Britannia Zinc, Britain's only zinc smelter, is carrying out research into the extraction of heavy metals from mixed portable batteries (ENDS Report 332, pp 18).

4.8.9. Textiles

While door-to-door collection schemes are in place, the collection of textiles is mainly through bring sites and second-hand shops. Textiles are collected at a number of bring sites throughout Kildare as well as at the Civic Amenity Site in Silliot Hill. The textile waste recovery industry is dominated by five companies in the Republic of Ireland.

The main textile waste recovery companies do not accept waste carpets. Therefore, there is no known recovery of these carpets in Ireland.

Some potential new outlets for textiles include production of yarn and fleece, production of synthetic materials, carpet products and textile hardboards.

4.8.10. Wood

It is estimated that 14 % of construction and demolition waste in Ireland is composed of wood. 30 companies are involved in the wood recovery industry in Ireland. Some potential new outlets for wood include wood-fibre-plastic products, and pulp and paper manufacture.

4.8.11. Used Beverage Cartons

Used beverage cartons (UBCs) are composed of fibre, polyethylene and sometimes aluminium. UBCs are collected by Kildare County Council as part of the two-bin separate collection system. The cartons are sent to the UK for processing. They are generally used for packaging milk, fruit juices, etc. The domestic waste stream produces the majority of UBCs. In Ireland, between 11,000 and 12,000 tonnes of waste UBCs are produced annually, most of which is sent to landfill sites (source: EPA).

Very few bring sites in Ireland accept UBCs. In Europe, 37 % of UBCs is recovered; 20 % is sent for mechanical recycling; and the other 17 % is used for energy recovery. Some potential new outlets for UBCs new cartons include paper based products, heat recovery, thermo formed products, and building material.

4.9. Infrastructural Deficiencies with the County

There are a number of deficiencies in waste management infrastructure within the County:

- Some of the smaller refuse collectors have not fully implemented a two-bin collection system to all paying customers within the County. This is currently being addressed by Kildare County Council via the waste collection permits.
- 40 bring centres have been constructed. The Council has had difficulty in sourcing sites for new facilities. However, the two-bin collection system has been provided to the majority of customers.
- There is no materials recovery facility (MRF) in the County. However, dry recyclables collected by the Council are adequately dealt with outside the County at a licenced facility.

4.10. Deficiencies in Waste Statistics

The quality of information received for the preparation of this Plan was considerably more detailed and accurate than that received for the 2000 - 2005 Waste Management Plan.

Tonnages for household and commercial waste were based on annual environmental reports submitted by waste permit holders and licenced facilities within the County. The quality of information available on hazardous waste arisings has improved significantly. Detailed information on the movement of reported hazardous waste can be obtained from trans-frontier shipment certificates and C1 consignment notes.

There are still gaps in the information reported on waste flows for a number of waste streams including industrial waste and priority wastes.

4.11. Local Authority Costs and Revenues – Waste Management

In 2004, the total expenditure for the County was € 14,201,800 while the income from waste management activities was € 14,101,800