

SOUTHERN WASTE MANAGEMENT PARTNERSHIP

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Armagh



Banbridge



Cookstown



Craigavon



Dungannon



Fermanagh



Newry & Mourne



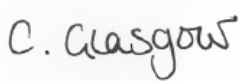
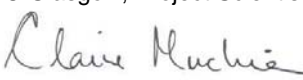
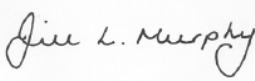

Omagh

ANNUAL REPORT 2005/06

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1.0 INTRODUCTION

This report has been prepared by the Southern Waste Management Partnership (SWaMP) in order to assess the progress that has been made within the sub region towards the implementation of the SWaMP Waste Management Plan.

This report provides an update on the current waste arisings for the 2005/06 financial year and compares them against those stated within the Waste Arising Surveys for NI and the 2004/05 Annual Report and Review. As with previous years, it also provides a review of the actions taken by the Group towards implementation of infrastructure and assesses the measures that have been set in place to secure contracts for the collection, reprocessing and delivery to end markets of material collected within the SWaMP Region. The report also compares current & projected waste arisings against the Waste Management Strategy targets and WET Act diversion targets.

In order to assess the above, various assumptions have been made during the calculation of the projected recovery and diversion rates for the group. It is important that these are taken into account when considering the data within this review. These assumptions are outlined below.

- The biodegradable fraction of municipal waste accounts for 71% of the total municipal waste arisings;
- The Group has set limits for the annual growth in municipal waste over the Plan period, up to 2020, as follows:
 - 1.5% up to 2010
 - 1.0% from 2010 to 2013
 - 0.5% from 2013 to 2020
- Growth of number of occupied households in the region has been estimated at 2% per Council area per year;
- Estimates of biodegradable municipal waste recovered in the SWaMP Region from 2003 to 2009/10 have been calculated using a mass balance approach;
- The tonnages from individual Council Civic Amenity Sites are based on the data provided in the WasteDataFlow and estimates of current and future performance;
- The tonnages for central composting bins for urban areas have been assessed according to individual Council performance, based on data provided in WasteDataFlow and estimates for current performance. A tonnage of 0.09 tonnes/bin/year has been assumed for rural areas as it is assumed that these bins will be collecting kitchen waste only;
- The tonnages from Recycling Banks are based on individual Council performance provided in the WasteDataFlow and estimates of current performance;
- The tonnages from mixed dry recyclables bins and boxes are based on individual Council performance provided in WasteDataFlow and estimates of current performance; and
- In situations where Councils have indicated a borough wide scheme of brown or blue bins, it is assumed that all new builds will be incorporated into the scheme.

2.0 REVIEW OF CURRENT WASTE ARISING

Information for this section of the review has been compiled using the verified figures from WasteDataFlow Returns submitted from each of the eight local authorities for data from April 2005 to March 2006. Data from previous years has also been included within this report as a means of allowing comparisons to be made against consecutive years and hence annual performance to be monitored at a glance. The data from 2002, 2003 and 2004 has been obtained from the 2002, 2003/04 and 2004/05 Annual Reports, while the data from 1999/2000 and 2001 has been obtained from the Municipal Waste and Waste Industry Survey, carried out as part of the Northern Ireland Waste Arisings Study and the Waste Arisings Study Phase III, Municipal Waste Survey 2002.

2.1 KEY WASTE MANAGEMENT INDICATORS

Key waste management indicators have been presented below to provide an overview of municipal waste management within the SWaMP group between 1999 & 2005/06.

| Key Performance Indicators | | | | | | |
|---------------------------------------------------|----------------|-------------|-------------|----------------|----------------|----------------|
| | 1999/00 | 2001 | 2002 | 2003/04 | 2004/05 | 2005/06 |
| Household Waste | | | | | | |
| No of Households ¹ | 151,284 | 153,791 | 158,420 | 161,547 | 173,895 | 177,959 |
| % Growth rate in occupied household no's | - | 1.7% | 3.0% | 2.0% | 7.6% | 2.4% |
| Household waste (tpa) ² | 203,308 | 215,683 | 237,069 | 239,544 | 244,077 | 246,994 |
| Household waste growth rate | - | 6.1% | 9.9% | 1.0% | 1.9% | 1.2% |
| Waste per household (tpa) | 1.34 | 1.40 | 1.50 | 1.48 | 1.40 | 1.38 |
| Recovery ³ rate of household waste (%) | 9.8% | 12.9% | 14.2% | 18.0% | 23.1% | 25.9% |
| Municipal Waste | | | | | | |
| Municipal waste (tpa) | 256,667 | 279,606 | 268,803 | 265,365 | 277,029 | 279,577 |
| Municipal waste growth (%) | - | 8.9% | -3.9% | -1.3% | 4.4% | 0.9% |
| Municipal Waste Landfilled | | | 223,828 | 216,158 | 215,378 | 212,044 |
| Biodegradable Municipal Waste Landfilled | | | 155,845 | 155,622 | 154,774 | 145,796 |

Note

1. No of households taken from The Rate Collection Agency for year ending December 2000, December 2001, March 2002 and March 2003. Figures from 2004/05 have been taken from Housing Statistics- Northern Ireland Housing Bulletin, Department of Social Development. Figures from 2005/06 have been taken from WasteDataFlow.
2. tpa= tonnes per annum
3. Recovery refers to household waste recycling and composting
4. Shaded area- information not available
5. Includes only C&I waste collected by Councils

2.2 CURRENT HOUSEHOLD WASTE ARISING

For the basis of this report, the definition of household waste used has been that given in the Municipal Waste Data Monitoring and Reporting: Interim Guidelines 2003. The definition in the Guidelines states household waste means waste arising from a domestic property (i.e. a building or self contained part of a building which is used wholly for the purposes of living accommodation), caravan, residential home, premises forming part of a university or school or other educational establishment and premises forming part of a hospital or nursing home.

2.2.1 Household Waste Production

The household waste arisings for each Council for the full financial year has been presented in the table below.

| Household Waste Arisings (tpa) | | | | | | |
|------------------------------------------|----------------|----------------|----------------|----------------|---------------------|----------------|
| | 1999/00 | 2001 | 2002 | 2003 | 2004/05 | 2005/06 |
| Armagh City & District Council | 19,461 | 22,212 | 27,249 | 29,330 | 28,496 | 25,959 |
| Banbridge District Council | 21,619 | 21,386 | 22,195 | 23,755 | 24,445 | 24,993 |
| Cookstown District Council | 15,321 | 15,758 | 17,543 | 17,208 | 18,073 | 19,117 |
| Craigavon Borough Council | 39,949 | 43,550 | 47,326 | 45,392 | 46,180 | 47,187 |
| Dungannon & South Tyrone Borough Council | 21,340 | 23,028 | 25,121 | 25,381 | 27,883 | 29,274 |
| Fermanagh District Council | 27,268 | 22,683 | 28,182 | 29,211 | 28,744 | 29,150 |
| Newry & Mourne District Council | 37,041 | 42,408 | 42,099 | 41,247 | 44,337 ¹ | 44,861 |
| Omagh District Council ¹ | 21,309 | 24,658 | 27,354 | 28,020 | 25,919 ² | 26,453 |
| SWaMP TOTAL | 203,308 | 215,683 | 237,069 | 239,544 | 244,077 | 246,994 |

Note:

1. Figures adjusted for 833 tonnes of C&I waste that had been included within household waste figures reported for 2004/05.
2. It should be noted that the figure reported for Omagh is approximately 7,010 tonnes less for household waste and 5,175 tonnes less than the figure quoted in the Key Performance Indicators for municipal waste. An error was noted in the reported figures resulting in an overestimation of both household and municipal waste arisings for 2004/05.

The table shows the variation in household waste arisings for the group between 1999 and 2005/06. The Waste Management Plan for the SWaMP Region suggested a growth rate for household waste arisings of 1.5% up to 2010. There has been great deal of variation between years previously, with increases of up to 9.9% being seen between 2001 and 2002, and the growth percentage for the last year being 1.2% for the group.

Armagh City Council has seen a significant reduction in household waste arisings from 28,496 in 2004/05 to 25,959 in the current reporting period. Most other individual Councils have seen slight increases in household waste arisings. These increases are much less than in previous years demonstrating that SWaMP's awareness initiatives and provision of services are having a positive impact on levels of household waste arisings in the Region.

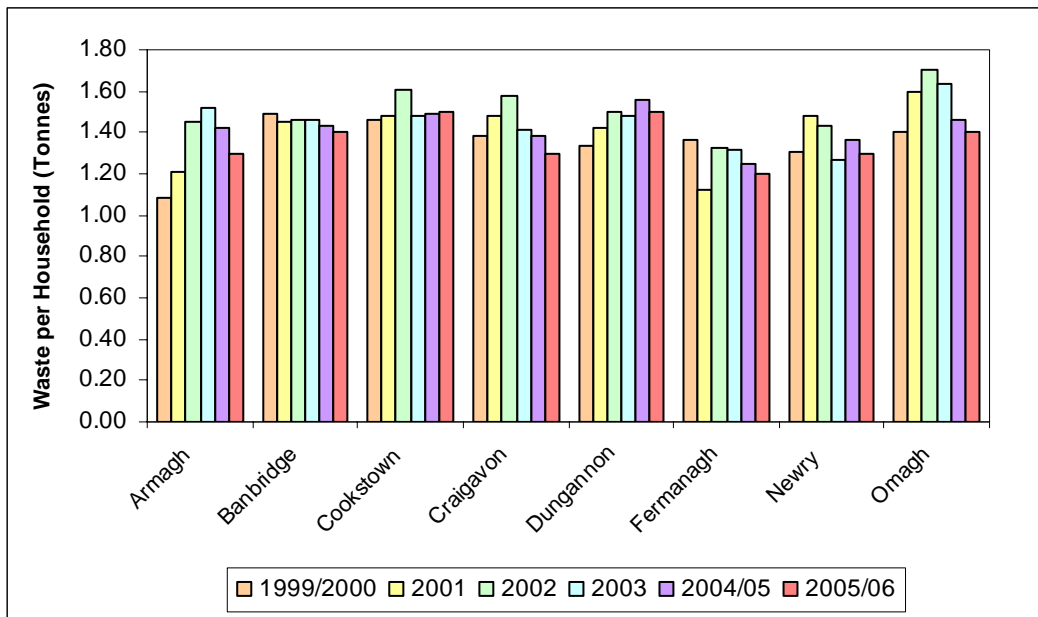
The household waste arisings for each individual Council for 2005/06, recorded on a quarterly basis, is shown in the table below:

| Household Waste Arisings 2005/06 Per Quarter (tpa) | | | | |
|-----------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|
| | Apr – Jun 05 | Jul – Sep 05 | Oct – Dec 05 | Jan – Mar 06 |
| Armagh | 7,166 | 6,636 | 6,011 | 6,147 |
| Banbridge | 6,963 | 6,648 | 5,568 | 5,814 |
| Cookstown | 4,900 | 4,900 | 4,617 | 4,699 |
| Craigavon | 11,511 | 13,092 | 11,236 | 11,347 |
| Dungannon | 7,571 | 7,623 | 7,056 | 7,025 |
| Fermanagh | 6,992 | 8,581 | 6,496 | 7,080 |
| Newry & Mourne | 12,454 | 11,335 | 10,724 | 10,347 |
| Omagh | 8,927 | 6,480 | 6,359 | 4,687 |

2.2.2 Waste Quantities Generated Per Household

The quantity of waste generated per household, calculated as the quantity of household waste produced in a region divided by the number of households, provides an indicator of trends in household waste arisings. The figure can be used to assess the performance of waste reduction activities and evaluate broad trends in household waste generation.

Household Waste Generated per Household



As illustrated in the above figure, there has been a general slight decrease in the amount of waste produced per household from an average of, 1.40 t/household/year in 2004/05 to 1.38 t/household/year in 2005/06, this follows the trend from last year, where a slight decrease in waste arisings were noted in most Council areas.

2.3 CURRENT HOUSEHOLD WASTE RECOVERY RATES

The following table shows a summary of the 2005/06 household recovery rates, as recorded through the verified figures from WasteDataFlow for the SWaMP Region.

| Household Waste Recovery Rates 2005/06 | |
|----------------------------------------------|------------|
| Armagh City and District Council | 27% |
| Banbridge District Council | 41% |
| Cookstown District Council | 28% |
| Craigavon Borough Council | 29% |
| Dungannon and South Tyrone Borough Council | 20% |
| Fermanagh District Council | 21% |
| Newry and Mourne District Council | 25% |
| Omagh District Council | 18% |
| Average SWaMP Household Recovery Rate | 26% |

The average household recovery rate for the SWaMP Region during 2005/06 was 26%, an increase of 0.9% on the 2004/05 recovery rate. A total of 64,000 tonnes of household waste was recovered in the SWaMP Region. This result represents a significant achievement with

the SWaMP Group as a whole meeting the Northern Ireland Waste Management Strategy Household waste recovery target of 25%. The majority of individual District Councils within the SWaMP Group have also met this target, with all those except Dungannon, Fermanagh and Omagh Councils achieving at least 25% recovery of household waste.

This rise in household waste recovery has been due to the continued efforts of the Councils within the SWaMP Region in the implementation and improvement of infrastructure and services.

A breakdown of these rates, illustrated on a quarter to quarter basis, is shown in the following table.

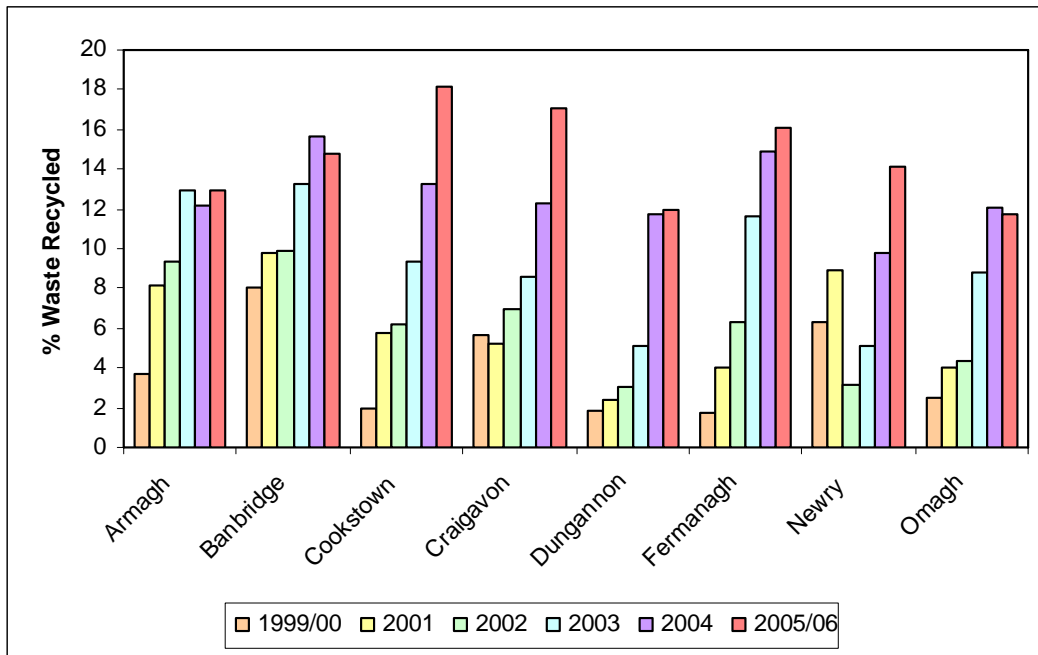
| Household Waste Recovery Rates 2005/06 Per Quarter ¹ | | | | |
|------------------------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|
| | Apr – Jun 05 | Jul – Sep 05 | Oct – Dec 05 | Jan – Mar 06 |
| Armagh | 27% | 31% | 26% | 23% |
| Banbridge | 47% | 45% | 35% | 35% |
| Cookstown | 26% | 31% | 32% | 29% |
| Craigavon | 35% | 30% | 28% | 25% |
| Dungannon | 22% | 22% | 19% | 16% |
| Fermanagh | 16% | 31% | 20% | 22% |
| Newry & Mourne | 25% | 25% | 24% | 26% |
| Omagh | 12% | 21% | 21% | 19% |
| SWaMP TOTAL | 26% | 30% | 26% | 24% |

Note: 1. Estimated to nearest 1%

2.3.1 Household Waste Recycling & Composting Rates

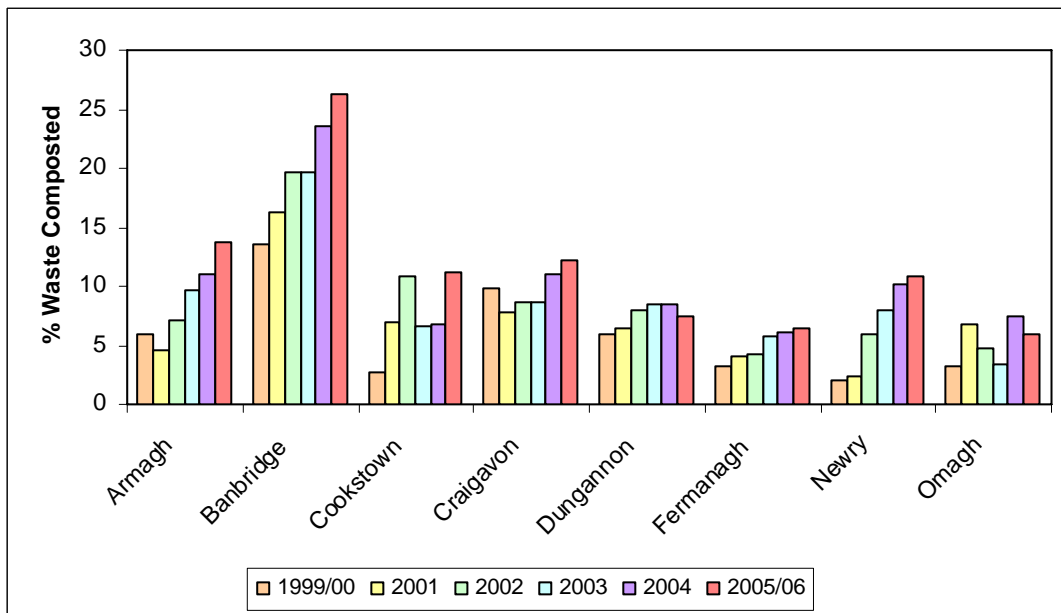
The average percentage of household waste recycled in the SWaMP Region during 2005/06 is estimated to be 15%. This figure has risen 2% since the same period in 2004/05. This increase in recycling is due to the increase in public awareness in waste management, generated through education and awareness campaigns as well as the provision of more facilities, both at the individual household level and at a Council level. The majority Councils within the Region have experienced an increase in recycling from the same period last year. The breakdown of these figures is illustrated below.

Household Recycling Rate (excluding composting)



Approximately 12% of household waste has been composted in the Region during 2005/06. The composting rates for each of the individual authorities in the Region are presented below.

Household Composting Rate



It is expected that the reason for this small rise in % waste composted, when compared with the rise in recycling percentages, is due to the fact that, as a result of the implementation of the Animal By Products Regulations, there is at present limited capacity for the treatment of composting waste. This is however anticipated to rise in the future with the conclusion and implementation of the current procurement process for the provision of the services for the collection treatment and delivery to end markets of biowaste.

2.4 CURRENT MUNICIPAL WASTE ARISING

The quantity of municipal waste, and particularly its biodegradable fraction, is a key indicator of waste management performance given its relationship to landfill diversion targets under the Landfill Directive (1999/31/EC). For the purposes of this report, the definition used for municipal waste has been taken from the Municipal Waste Data Monitoring and Reporting: Interim Guidelines, 2003. The definition in the Guidelines states municipal waste means household waste and any other waste under the control of (i.e. collected by) District Councils or their agents acting on their behalf.

2.4.1 Municipal Waste Production

A summary of the municipal waste produced by each Council has been presented in the table below.

| Municipal Waste Arisings (tpa) | | | | | | |
|------------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | 1999/00 | 2001 | 2002 | 2003 | 2004/05 | 2005/06 |
| Armagh City & District Council | 25,009 | 27,153 | 27,889 | 31,024 | 30,643 | 29,130 |
| Banbridge District Council | 23,665 | 22,490 | 23,442 | 26,504 | 26,295 | 26,407 |
| Cookstown District Council | 21,185 | 29,282 | 24,157 | 19,662 | 20,031 | 21,198 |
| Craigavon Borough Council | 50,681 | 52,450 | 52,105 | 53,089 | 55,632 | 53,882 |
| Dungannon & South Tyrone Borough Council | 24,836 | 26,584 | 26,953 | 28,141 | 29,391 | 29,808 |
| Fermanagh District Council | 36,636 | 39,167 | 35,854 | 33,626 | 36,240 | 37,766 |
| Newry & Mourne District Council | 48,991 | 52,148 | 48,502 | 44,087 | 50,410 | 51,754* |
| Omagh District Council ¹ | 25,664 | 30,332 | 29,901 | 29,232 | 28,387 | 29,632 |
| SWaMP TOTAL | 256,667 | 279,606 | 268,803 | 265,365 | 277,029 | 279,577 |

* This figure includes 582 tonnes of rubble.

The figures in the table above show a large degree of fluctuation in municipal waste growth rates. The growth rate over the past year has been calculated as 0.9%, compared with 4.4% in the previous reporting period.

A breakdown of these figures per quarter for each individual Council is shown in the following table.

| Municipal Waste Arisings 2005/06 Per Quarter (tpa) | | | | |
|-----------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|
| | Apr – Jun 05 | Jul – Sep 05 | Oct – Dec 05 | Jan – Mar 06 |
| Armagh | 8,081 | 7,442 | 6,705 | 6,903 |
| Banbridge | 7,500 | 6,931 | 5,888 | 6,088 |
| Cookstown | 5,401 | 5,443 | 5,136 | 5,218 |
| Craigavon | 14,509 | 14,153 | 12,576 | 12,643 |
| Dungannon | 7,682 | 7,807 | 7,181 | 7,137 |
| Fermanagh | 9,219 | 10,764 | 8,647 | 9,136 |
| Newry & Mourne | 13,793 | 13,438 | 12,468 | 12,056 |
| Omagh | 9,533 | 7,139 | 7,754 | 5,206 |

2.4.2 Municipal Waste Recycling & Composting Rates

The approximate total amount of municipal waste recycled and composted, measured as a percentage of the total municipal waste arisings during 2005/06 was 68,244 tonnes or 24.4%. The breakdown of these figures for each Council is shown below. The figures can be calculated as the tonnage of municipal waste recovered divided by the total municipal waste tonnage.

| Municipal Waste Recovery Rates 2004/05 | |
|-----------------------------------------------|------------|
| Armagh City and District Council | 29% |
| Banbridge District Council | 41% |
| Cookstown District Council | 27% |
| Craigavon Borough Council | 26% |
| Dungannon and South Tyrone Borough Council | 19% |
| Fermanagh District Council | 18% |
| Newry and Mourne District Council | 23% |
| Omagh District Council | 16% |
| Average SWaMP Municipal Recovery Rate | 24% |

A break down of these figures for individual Councils, reported on a quarter to quarter basis, is shown in the table below.

| Municipal Waste Recovery Rates 2004/05 Per Quarter ¹ | | | | |
|------------------------------------------------------------------------|---------------------|---------------------|---------------------|---------------------|
| | Apr – Jun 05 | Jul – Sep 05 | Oct – Dec 05 | Jan – Mar 06 |
| Armagh | 31% | 33% | 27% | 25% |
| Banbridge | 48% | 44% | 34% | 34% |
| Cookstown | 26% | 28% | 30% | 27% |
| Craigavon | 27% | 27% | 25% | 22% |
| Dungannon | 21% | 21% | 19% | 15% |
| Fermanagh | 14% | 26% | 17% | 19% |
| Newry & Mourne | 23% | 22% | 21% | 24% |
| Omagh | 11% | 19% | 17% | 17% |
| SWaMP TOTAL | 25% | 28% | 24% | 23% |

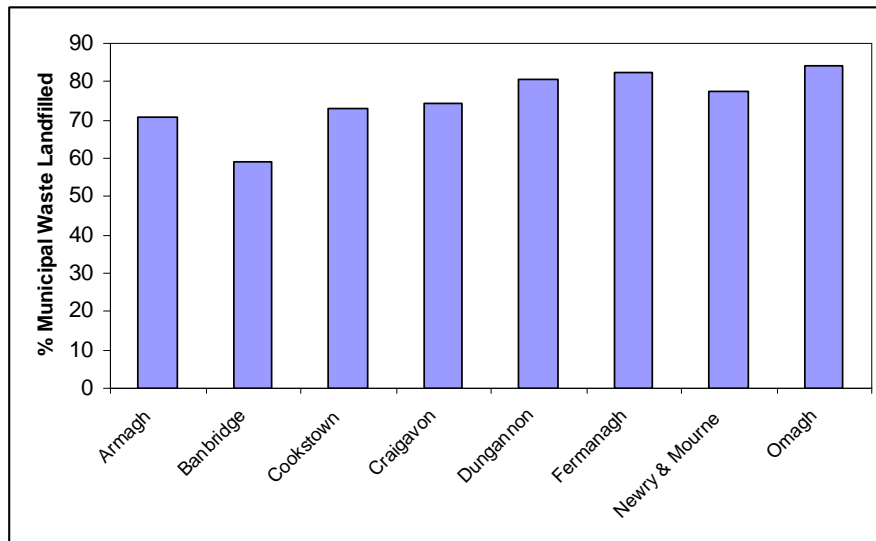
Note: 1. Figures reported to nearest 1%

All Councils have experienced a notable increase in the municipal recovery rates between 2004/05 and 2005/06 due to the continued implementation and improvement of infrastructure and services.

2.4.3 Municipal Waste Landfilled

The approximate percentage of municipal waste landfilled, as a percentage of total municipal waste arisings in the SWaMP Region during 2005/06 was 75.3% or 212,044 tonnes. This figure represents a decrease of approximately 2% on last year's total. The figures were calculated as the tonnage of municipal waste landfilled during 2005/06 divided by the total municipal waste arisings and are illustrated below.

% Municipal Waste Landfilled 2005/06



Biodegradable Municipal Waste Landfilled

The approximate tonnage of Biodegradable Municipal Waste (BMW) landfilled in the SWaMP Region in 2005/06 is estimated to be 145,796 tonnes. This figure represents an approximate decrease of 6% in 2005/06 compared with results from last year. The table below shows the tonnages of BMW for the individual Councils within the SWaMP Region and compares current BMW landfilled tonnages against the 2005/06 NILAS Allowances. This shows that the SWaMP Group as a whole met the 2005/06 NILAS target, with every Council except Fermanagh within their NILAS District Council allowance.

| BMW Landfilled | | | |
|------------------------------------------|---------------------------------|-------------------------------|-------------------|
| | NILAS Allowances 2005/06 | BMW landfilled 2005/06 | Difference |
| Armagh City and District Council | 17,790 | 14,296 | 3,494 |
| Banbridge District Council | 12,896 | 10,213 | 2,683 |
| Cookstown District Council | 11,681 | 10,402 | 1,279 |
| Craigavon Borough Council | 30,961 | 27,624 | 3,337 |
| Dungannon & South Tyrone Borough Council | 18,375 | 16,694 | 1,681 |
| Fermanagh District Council | 21,041 | 21,740 | -699 |
| Newry and Mourne District Council | 28,720 | 28,105 | 615 |
| Omagh District Council | 19,155 | 16,722 | 2,433 |
| SWaMP TOTAL | 160,619 | 145,796 | 14,823 |

This decrease in waste being landfilled demonstrates that there has been some progression in the past year towards meeting the BMW targets. There is a need to not only ensure continued implementation of the Waste Management Plan, and to strive towards a decrease in waste arisings, in order to ensure that the NILAs targets can be met.

The need for infrastructure / contracts to be in place before segregated biowaste collections can be implemented has impacted on the amount of BMW that can be diverted in this financial year.

3.0 CURRENT PERFORMANCE

The implementation of the Waste Management Plan for the SWaMP Region required the continued provision of a range of enhanced services and facilities over the specified period of the Plan.

This section of the review compares and contrasts the infrastructure and facilities that have been implemented during 2005/06 or that are proposed for 2007 & 2008 with what was contained within the SWaMP Waste Management Plan and highlights areas in which further development is required.

3.1 HOME COMPOSTING

To date Councils have issued a small number of home composting bins to households throughout the Region as summarised below (as reported through WasteDataFlow).

| Home Composting Units | |
|-----------------------|--------------------------|
| Armagh | Approximately 128 issued |
| Banbridge | Approximately 15 issued |
| Cookstown | Approximately 173 issued |
| Craigavon | Approximately 255 issued |
| Dungannon | Approximately 0 issued |
| Fermanagh | Approximately 311 issued |
| Newry & Mourne | Approximately 125 issued |
| Omagh | Approximately 185 issued |

Although the number of composting units issued by each Council on a quarterly basis is recorded within WasteDataFlow, there remains to be no accurate way of measuring and recording performance of home composting units. For this reason therefore, home composting, although considered to be a good means of reducing residual waste within the home environment, remains to be excluded from the current recovery rates.

3.2 COMMUNICATIONS PLAN

A joint Communications Plan has been prepared by the Councils of SWaMP, which is contained in Appendix D of the SWaMP Waste Management Plan submitted to the Department of the Environment in June 2006. This Communications Plan sets out the joint communications activities to be delivered by SWaMP with the aim of:

- Raising the level of awareness and usage of kerbside recycling schemes across the region;
- Maximising the number of households participation in the kerbside recycling schemes and quantity of recyclable materials handled through the region’s bring facility network; and
- Reaching residents of all ages through targeted promotional activities such as schools competitions, direct mail and use of the SWaMP website.

3.3 IMPLEMENTATION ACTION PLAN PROGRESS

As part of the review of the Plan, an Implementation Action Plan (IAP) is currently being developed. The IAP will be updated annually and has been designed to sit below the Waste Management Plan in the hierarchy of waste documents.

3.4 SERVICE CONTRACTS

All Councils within the SWaMP Region have secured short – medium term contracts for the collection, transfer and reprocessing of mixed dry recyclables. These have been secured through a number of individual or joint contracts. The SWaMP Group have recently secured a contract for the collection, transfer and reprocessing of biowaste materials. Details of the service providers for each Council are provided in the table below.

| Service Contracts | | |
|--------------------------|--------------|----------------------------|
| | MDR | Compostables |
| Armagh | Bryson House | Natural World Products Ltd |
| Banbridge | Bryson House | Natural World Products Ltd |
| Cookstown | Shergrim | Natural World Products Ltd |
| Craigavon | GD Recycling | Natural World Products Ltd |
| Dungannon | Shergrim | Natural World Products Ltd |
| Fermanagh | Glassdon | N/A |
| Newry | Regen | Natural World Products Ltd |
| Omagh | Shergrim | Natural World Products Ltd |

4.0 ASSESSMENT OF PROGRESS TOWARDS TARGETS

4.1 PROJECTED RECOVERY RATES

As previously stated in this review, one of the primary targets of the Waste Management Strategy for Northern Ireland was to recover 25% of household waste (of which 15% must constitute recycling and/or composting) by the end of 2005.

4.1.1 Projected Household Waste Recovery Rates

The following table shows the estimated average quantity of household waste recovered (through recycling and composting), along with the target recovery rates as laid out in the Waste Management Plan, for the SWaMP Region between 2005/06 and 2009/10. The values shown are calculated based on the information supplied by each of the Councils within the SWaMP region in the Implementation Action Plans. It should be noted however, that the values estimated on based on the full implementation of all infrastructure and services in the timescales identified within each of the individual Councils Implementation Action Plans.

The breakdown of the values for each individual local authority within this period is presented in Appendix A.

| Projected Household Waste Recovery Rates | | | | | |
|-------------------------------------------------|-----------------------------|----------------|----------------|----------------|----------------|
| | 2005/06 (Actual) | 2006/07 | 2007/08 | 2008/09 | 2009/10 |
| Armagh City & District Council | 27% | 28% | 28% | 28% | 28% |
| Banbridge District Council | 41% | 42% | 43% | 43% | 42% |
| Cookstown District Council | 28% | 31% | 33% | 33% | 33% |
| Craigavon Borough Council | 29% | 29% | 31% | 31% | 31% |
| Dungannon & South Tyrone Borough Council | 20% | 20% | 20% | 20% | 20% |
| Fermanagh District Council | 21% | 31% | 37% | 37% | 37% |
| Newry & Mourne District Council | 25% | 31% | 32% | 32% | 33% |
| Omagh District Council ¹ | 18% | 27% | 29% | 29% | 29% |
| SWaMP | 26% | 30% | 32% | 31% | 31% |

The 2005/2006 figures in the table above are the actual figures recorded for the financial year.

It has been estimated that the projected quantity of household waste recovered (through both recycling and composting) in the SWaMP Region for 2005/06 is 26% or 64,218 tonnes.

4.1.2 Projected Municipal Waste Recovery Rates

The following Table shows the estimated average quantity of municipal waste recovered (through recycling and composting) for the SWaMP Region between 2005/06 and 2009/10. As with the previous section, this is based on the information supplied in the Implementation Action Plan and is dependent on all infrastructure and services being rolled out in the timescales identified within the Plan.

The breakdown of the values for each individual local authority within this period is presented in Appendix A.

| Municipal Waste Recovery (through recycling and composting) | | | | | |
|--------------------------------------------------------------------|-----------------------------|----------------|----------------|----------------|----------------|
| | 2005/06 (Actual) | 2006/07 | 2007/08 | 2008/09 | 2009/10 |
| Armagh City and District Council | 29% | 29% | 29% | 28% | 28% |
| Banbridge District Council | 41% | 44% | 45% | 45% | 44% |
| Cookstown District Council | 27% | 32% | 34% | 34% | 34% |
| Craigavon Borough Council | 26% | 29% | 31% | 31% | 30% |
| Dungannon & South Tyrone Borough Council | 19% | 19% | 19% | 19% | 19% |
| Fermanagh District Council | 18% | 26% | 31% | 30% | 30% |
| Newry and Mourne District Council | 23% | 23% | 24% | 24% | 25% |
| Omagh District Council | 16% | 24% | 26% | 26% | 26% |
| SWaMP | 25% | 28% | 29% | 29% | 29% |

It has been estimated that the projected quantity of municipal waste recovered (through recycling and composting) for the SWaMP Region for 2006/07 is 77,929 tonnes or 28%. The majority of Councils in the SWaMP Region have a projected further increase in their recovery rates between 2006/07 and 2009/10.

4.2 WET ACT TARGETS

One of the targets set out for Northern Ireland is the Waste and Emissions Trading (WET) Act. The WET Act target for the United Kingdom sets out a series of targets for the diversion of Biodegradable Municipal Waste (BMW) from landfills as well as provision of a Northern Ireland Allowance Scheme which will allocate landfill allowances to local authorities.

This Act will provide a cost effective and efficient way of helping the UK meet its obligations under the Landfill Directive. This section provides details of the projected municipal and BMW landfilled quantities and assesses the BMW values against the current NI Allowances Scheme Targets.

4.2.1 Projected Municipal Waste Landfilled

The following table shows the projected amounts of municipal waste landfilled between 2005/06 and 2009/10 in the SWaMP Region. A more detailed breakdown of the values for each individual local authority within the SWaMP Region for this period is presented in Appendix A.

| Municipal Waste Landfilled | | | | | |
|--------------------------------------------|-----------------------------|----------------|----------------|----------------|----------------|
| | 2005/06 (Actual) | 2006/07 | 2007/08 | 2008/09 | 2009/10 |
| Armagh City and District Council | 20,666 | 21,054 | 21,447 | 21,847 | 22,252 |
| Banbridge District Council | 15,667 | 14,890 | 15,044 | 15,322 | 15,603 |
| Cookstown Borough Council | 15,510 | 14,538 | 14,328 | 14,581 | 14,838 |
| Craigavon Borough Council | 40,062 | 38,967 | 38,483 | 39,149 | 39,823 |
| Dungannon and South Tyrone Borough Council | 24,089 | 24,463 | 24,811 | 25,195 | 25,583 |
| Fermanagh District Council | 31,098 | 28,556 | 27,025 | 27,554 | 28,090 |
| Newry and Mourne District Council | 40,022 | 40,496 | 40,581 | 41,381 | 41,490 |
| Omagh District Council | 24,931 | 22,876 | 22,604 | 23,012 | 23,425 |
| SWaMP | 212,044 | 205,842 | 204,323 | 208,039 | 211,104 |

Note 1. Municipal waste calculated to the nearest tonne.

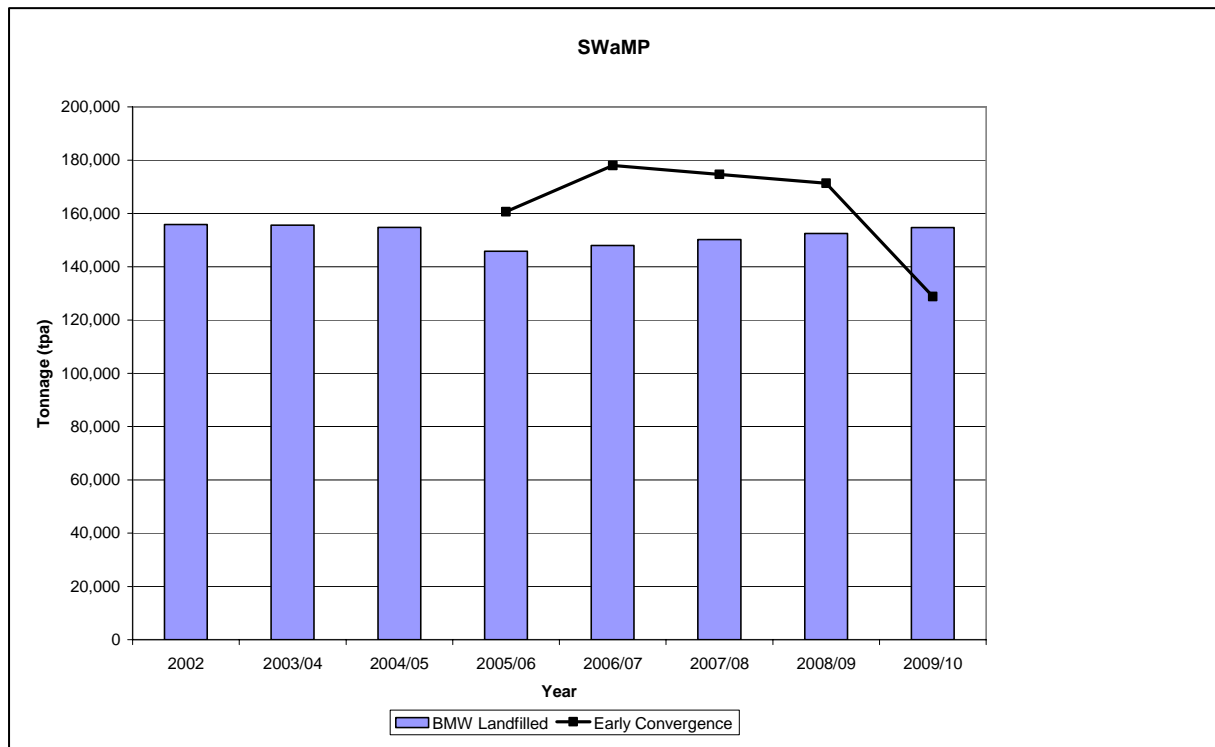
4.2.2 Projected Biodegradable Municipal Waste (BMW) Landfilled

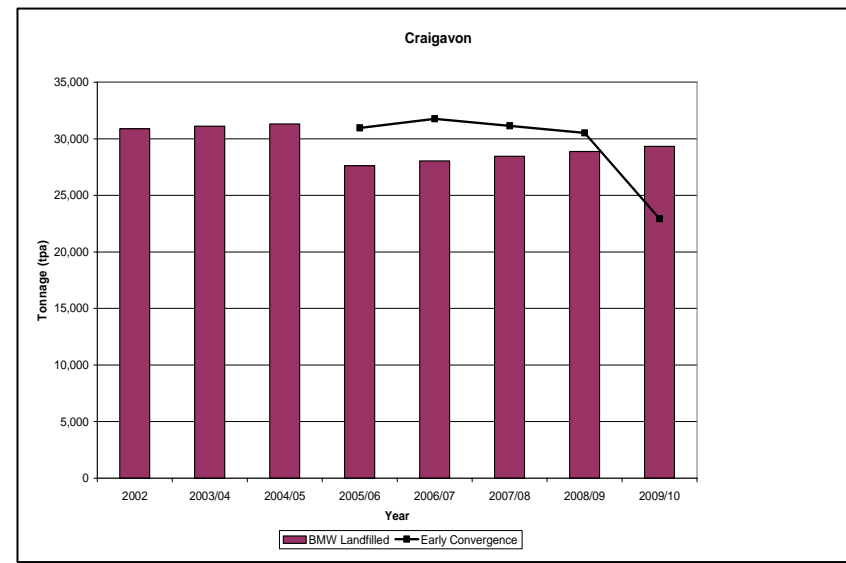
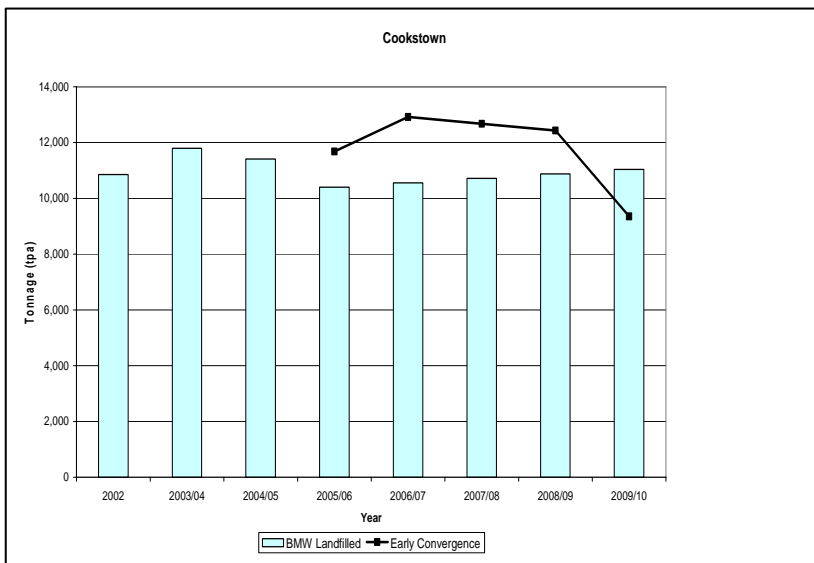
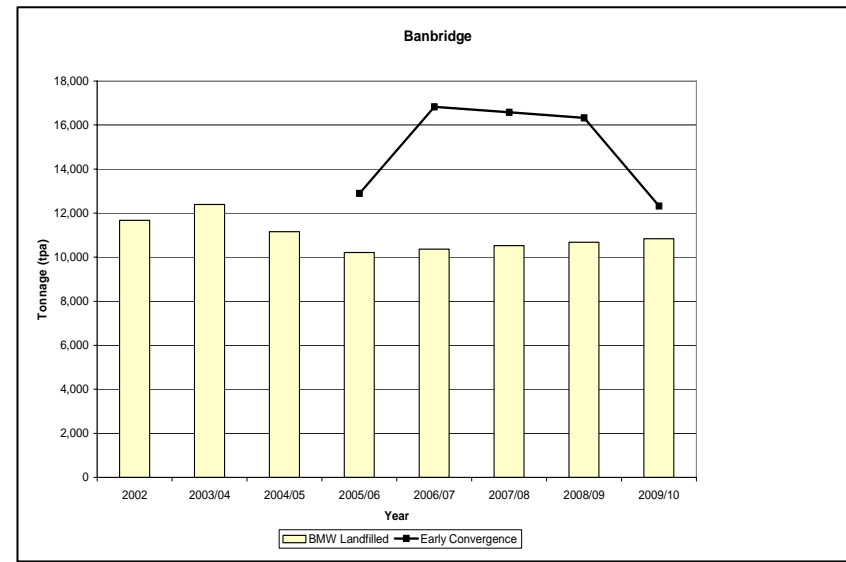
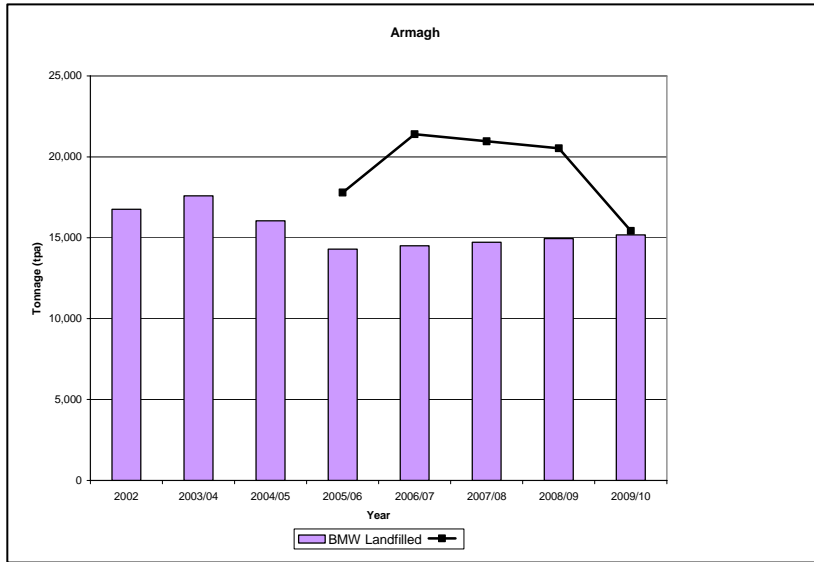
The following table shows the tonnage of BMW allowed to be landfilled and the potential fines faced by SWaMP for non-compliance. These fines will be in the order of £150 per tonne.

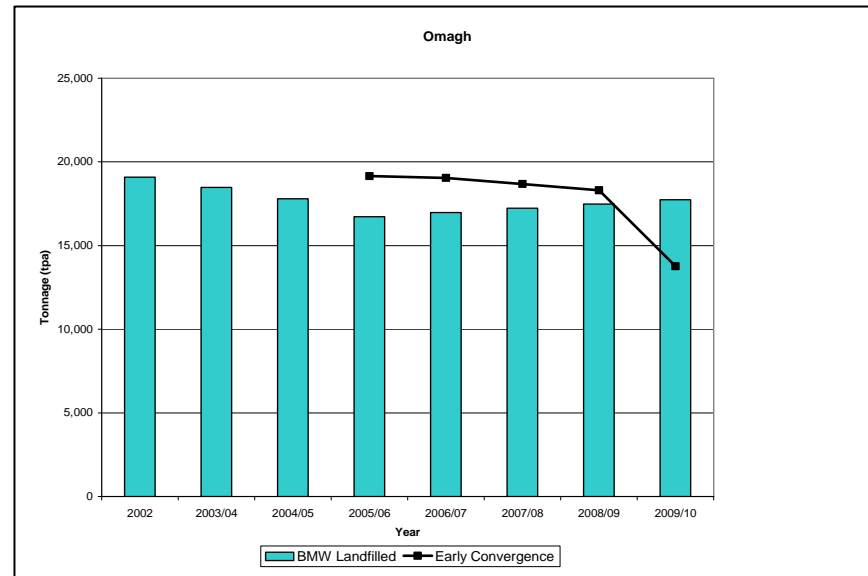
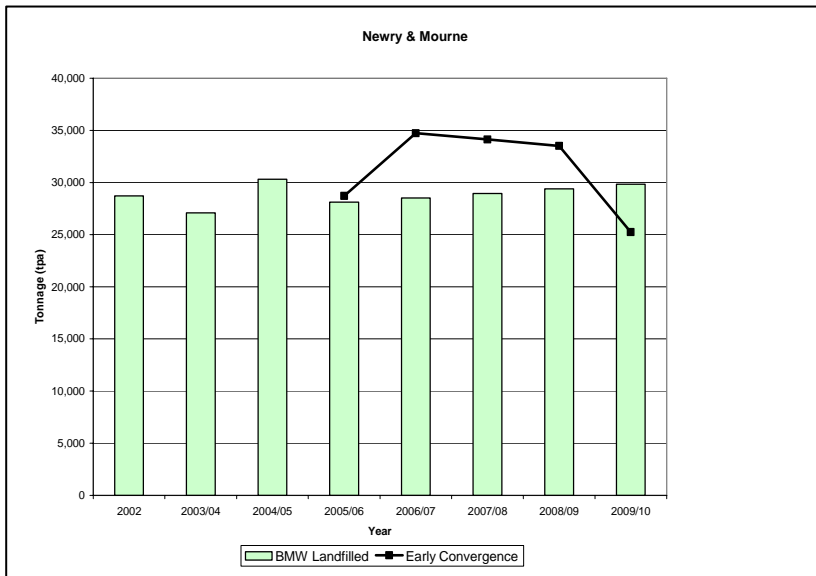
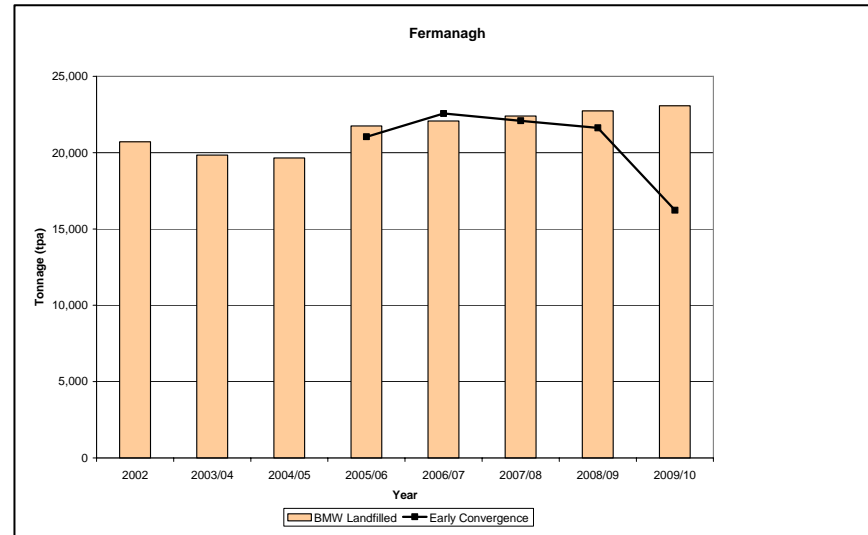
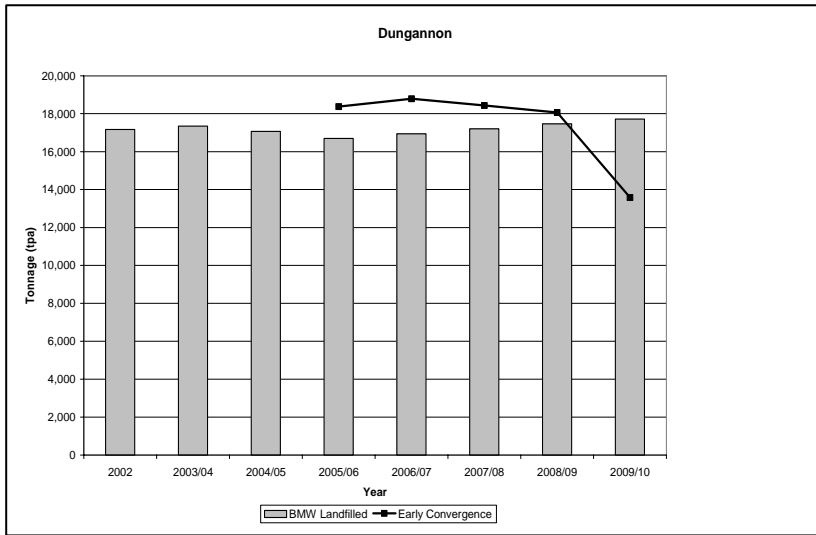
| WET ACT TARGETS | | | | | |
|------------------------------------------------|---------|---------|---------|---------|---------|
| | 2005/06 | 2006/07 | 2007/08 | 2008/09 | 2009/10 |
| Tonnage BMW allowed | 160,619 | 178,028 | 174,684 | 171,316 | 128,837 |
| BMW allowed – projected BMW landfilled | 14,823 | 30,045 | 24,481 | 18,860 | -25,906 |
| Potential Fines at £150 per tonne ¹ | £0 | £0 | £0 | £0 | £3.9m |

Note: 1. Fines calculated to nearest £1000.

The following graphs show the quantities of Biodegradable Municipal Waste (BMW) landfilled for the SWaMP Region between 2003 and 2005/06 and assess the projected tonnages against the NI Landfill Allowances. The breakdown of the values for each individual local authority within the SWaMP Region, along with the estimated cost implications associated with non-compliance, for this period is presented within Appendix A.







The projected BMW landfill projections are calculated on a Mass Balance approach to ensure the data is as accurate as possible.

It can be seen from the current projections, detailed in Appendix A, that the SWaMP Region are expected to meet the NI Landfill Allowances up to 2008/09. They are anticipated however to fall short of the 2009/10 target by approximately 26,000 tonnes and this will generate potential fines in the region of approximately £3.9 million in 2009/10, based on the anticipated fines of £150 per tonne. This is based on the assumption that there will be free transfer or movement of surplus allowances between the Group. Should this be prohibited, then all Councils, except Armagh and Banbridge, would fail to meet their 2009/10 targets, with Fermanagh failing to meet their 2007/08 targets.

5.0 OTHER CONTROLLED WASTE

5.1 COMMERCIAL AND INDUSTRIAL (C&I)

The commercial and industrial sectors produce a significant quantity of wastes, the cost effective management of which will present significant challenges in the future.

The Commercial and Industrial waste arisings for Northern Ireland and SWaMP for the reporting year 2004/05 have been extracted from the recently completed EHS Commercial and Industrial Waste Arisings Survey 2004/05. The survey concluded that approximately 1,560,000 tonnes of Commercial and Industrial waste was produced in Northern Ireland in 2004/05. Of this amount, approximately 385,000 tonnes was generated in the SWaMP Region.

The following figures have been obtained from the EHS Commercial and Industrial Waste Arisings Survey 2004/05.

| Commercial and Industrial (C&I) Wastes | | | |
|---------------------------------------------------|----------------------------------------|--------------------------------------|-----------------------------------|
| | C&I Waste Produced (tonnes) | Percentage of SWaMP Total (%) | Percentage of NI Total (%) |
| Armagh City & District Council | 27,904 | 7.2% | 1.8 |
| Banbridge District Council | 19,038 | 4.9% | 1.2 |
| Cookstown District Council | 26,437 | 6.9% | 1.7 |
| Craigavon Borough Council | 112,458 | 29.2% | 7.2 |
| Dungannon & South Tyrone Borough Council | 62,517 | 16.2% | 4.0 |
| Fermanagh District Council | 44,090 | 11.4% | 2.8 |
| Newry & Mourne District Council | 62,574 | 16.2% | 4.0 |
| Omagh District Council | 30,308 | 7.9% | 1.9 |
| Total | 385,326 | 100% | 25.0% |

Notes:

1. Source: EHS Commercial and Industrial Waste Arisings Survey 2004/05
2. The breakdown by district has been calculated assuming that the number of small businesses (less than 10 staff) is in the same relative proportion as large businesses.

District Councils have a key role to play in delivering the infrastructure, given the synergies identified between the C&I and the municipal waste sectors. Experience in many areas indicates that it is the facilities developed to service municipal waste contracts that provide the foundation to the waste management system, giving service providers the confidence and security to invest for the medium to long term.

Councils are to factor the potential C&I waste arisings into the planning and delivery of the Mechanical Biological Treatment plants proposed within the SWaMP Region for the treatment of municipal wastes.

Councils are to allow, where appropriate, a service for the collection or acceptance of C&I wastes at their facilities from SMEs, charged for accordingly, and provided always that the C&I waste is recorded and reported separately from the municipal waste stream, so that it does not add any additional burden or risk to Councils. This includes the acceptance of C&I waste for recycling at a minimum of one civic amenity site per Council area.

In addition, Councils, through their waste prevention and recycling officers, provide advice and guidance to businesses on the more sustainable management of their wastes.

5.2 CONSTRUCTION AND DEMOLITION (C&D)

The construction industry makes a substantial contribution to our quality of life, through the provision and maintenance of essential infrastructure, such as sewage systems, roads and telecommunications, and the provision of buildings for home, leisure, education and work. Construction, building materials and associated professional services together account for about 10% of our Gross Domestic Product and is an important source of employment in Northern Ireland.

The significant contribution to the construction and building sectors is set to continue with the major anticipated infrastructure spend in the coming years coupled with a healthy housing and commercial development sector. As a result, the amount of C, D & E waste generated is expected to increase if measures are not put in place to limit waste growth and promote resource efficiency.

Up-to-date C, D & E waste arisings is limited. However, based on a study carried out by the Symonds Group in October 2003 it is estimated that C, D & E arisings was in the range of 2.5 to 3.75 million tonnes per year in Northern Ireland. Given the uncertainties with the data, the upper value has been taken as a conservative best estimate for C, D & E waste arisings in 2003. Whilst recognising that there is no direct relationship between population and C, D & E waste arisings, this yields a C, D & E waste generation figure of approximately 2 tonnes per person per annum, which is similar to data reported elsewhere.

It is estimated that the SWaMP Region generated approximately 900,000 tonnes of C, D & E waste in 2003. Much of this C, D & E waste is recyclable, with the potential to replace virgin raw materials or part supply material to the construction industry.

There is a huge need to decouple C, D & E waste generation from economic growth associated with and the activity of the construction and building sectors.

In terms of future management, BPEO suggests that for C, D & E wastes within the SWaMP Region, the priority is waste prevention, followed by materials re-use and recovery. However, there will remain a need for landfill capacity for those wastes that are not recovered or recycled.

Another key area of focus for the future is the development of markets for alternative C, D & E materials, to put waste prevention into action.

5.3 HAZARDOUS

The management of hazardous waste has changed significantly in recent years as a result of more stringent legislation governing its treatment and disposal. This legislation has extended the definition of hazardous waste, as well as the co-disposal of hazardous and non-hazardous waste. The resulting effect of this has been an increase in the potential hazardous waste arisings as well as more stringent controls on disposal.

Due to the fact that the Hazardous Waste Regulations (Northern Ireland) did not come into effect until 2005, the current data relates to “Special Wastes” under the 1998 Regulations. The total hazardous waste arisings for 2002 were 47,432 tonnes. In addition to this, a further 10,797 tonnes was consigned from transfer stations within the Region.

To deal effectively with hazardous waste generated, and to reduce the relatively constant levels of hazardous waste produced from year to year, a Northern Ireland wide Hazardous Waste Forum has been established. The aim of this forum is to produce a strategy to identify the preferred waste management solutions for hazardous waste. The SWaMP group have been participating in this Forum. The Forum has published its first Action Plan in June 2004, with objectives and Actions focussing on four areas namely:

- Regulatory System
- Communications and awareness raising
- Reduction, Reuse and Recycling
- Provision of Facilities.

There is a requirement for District Councils to provide facilities for the collection of household hazardous waste such as WEEE, paints and batteries at appropriate civic amenity sites within their District, following the implementation of the WEEE Directive, in anticipation that appropriate funding and infrastructure will be made available through Producer Responsibility arrangements.

5.4 PACKAGING

Packaging waste in Northern Ireland arises from two principal sources: the household waste stream and from the commercial and industrial waste stream. The total packaging waste generated from these two sources can be estimated from available data, assuming that the proportion of packaging waste is 22% in the household waste stream (as indicated by the NI2000 Waste Characterisation Study, 2001), and that the quantity and proportion of commercial and industrial waste is as reported in the Commercial and Industrial Waste Survey in 2000. The total packaging waste arising in Northern Ireland is approximately 430,000 tonnes in 2004/05, with approximately half arising from from the commercial and industrial sector and half from households.

Packaging waste can be further broken down by material, as illustrated in the Table below.

| Total Packaging Waste (tonnes) | | | |
|---------------------------------------|-------------------------------------------|---------------------------|--------------------------------|
| Material | Commercial and Industrial (Tonnes) | Household (Tonnes) | Total Tonnage Estimated |
| Paper and cardboard | 124,000 | 63,000 | 187,000 |
| Glass | 19,000 | 73,00 | 92,000 |
| Aluminium | 1,000 | 4,000 | 5,000 |
| Ferrous metals | 12,000 | 21,000 | 33,000 |
| Plastic | 34,000 | 41,000 | 75,000 |
| Wood | 37,000 | 0 | 37,000 |
| Other | 2,000 | 0 | 2,000 |
| Total | 229,000 | 202,000 | 430,000 |

Within the SWaMP, the total packaging waste is approximately 112,000 tonnes, with approximately 58,000 tonnes being from commercial and industrial waste and 54,000 tonnes from household waste.

In Northern Ireland, the Producer Responsibility Obligations (Packaging Waste) (Amendment) Regulations (Northern Ireland) 2004, sets out a number of recovery and packaging targets which relate to the recovery and recycling of used packaging. These are summarised as follows:

| Packaging Material | 2005 | 2006 | 2007 | 2008 onwards |
|--------------------|------|------|------|--------------|
| Overall Recovery | 65 | 67 | 69 | 70 |
| Min % by Recycling | 94 | 94 | 95 | 95 |

In 2005, 380 businesses were registered with the EHS, of which 78 companies were Directly Registered and 302 were registered through compliance schemes.

Although the Packaging Regulations impose specific obligations on certain businesses, reprocessors and exporters, it is clear that all sectors have a role to play, if the quantities of packaging waste recycled and recovered is to increase significantly. Future actions to improve the collection of packaging waste by Councils in the SWaMP Region includes:

- Maximise collection of waste packaging materials from the household waste stream
- Increased collection of packaging materials from bring sites and civic amenity sites
- Provide access for businesses to civic amenity sites for the recycling of packaging wastes.
- Provide a separate collection service for packaging waste from local business and industry.

5.5 PRIORITY WASTE STREAMS

Priority waste streams have been identified on account of one or more of the following: their volume, hazardous nature, potential for recycling, potential to create an economic benefit or the fact that legislation is changing the way in which these materials have traditionally been managed. The priority waste streams include:

- Tyres
- Waste Electronic and Eelectronic Equipment
- End of Life Vehicles (ELVs)
- Batteries

In addition, consideration has also been given to other waste streams namely:

- Sewage Sludge
- Healthcare wastes

5.5.1 Tyres

The Landfill Directive (99/31/EC) prohibited the landfilling of whole tyres from 2003 and shredded tyres from 2006.

The Northern Ireland Used Tyre Survey, 2000, estimated the total quantity of wastes produced annually in Northern Ireland to be 16,100 tonnes or 1,738,100 tyres.

Within the SWaMP Region, the Used Tyres Working Group in 2001 stated that the amount of tyres being produced can be estimated based on arisings per capita of 3,215 tonnes per year in 2001, therefore the current arisings are estimated to be approximately 3,400 tonnes.

In terms of future management, the Waste Management Industry are encouraged to further develop local collection and reprocessing infrastructure within Northern Ireland, utilising relevant business support and funding available (e.g. Invest NI, WRAP, EU Structural Funds).

5.5.2 Waste Electrical and Electronic Equipment (WEEE)

The total WEEE arisings in Northern Ireland were estimated to be in the range of 25,000 – 30,000 (EHS Survey, 2001). A pilot study initiated in 2004 estimated the annual household arisings to be lower, between 6,500 and 20,000 tonnes.

Within the SWaMP Region, these arisings equate to between 1,700 tonnes and 5,300 tonnes.

The roles and responsibilities on District Councils for the management of WEEE are as follows:

- The British Retail Consortium is consulting with District Councils on the registration of household recycling centres as Designated Collection Facilities for WEEE. These would form part of the adequate network that retailers must provide.
- Follow WEEE Producer Responsibility Requirements.

5.5.3 End of Life Vehicles (ELV)

The estimated total number of ELVs arisings in Northern Ireland for 2000 was 69,800 vehicles, equating to 56,900 tonnes of ELV material. Of these, 69,800 vehicles, 11.3% were premature, 4.1% were abandoned natural old ELVs and 84% were non-abandoned natural ELVs.

Within the SWaMP Region therefore, based on population statistics, there are approximately 18,500 vehicles equating to approximately 15,100 tonnes of ELV material.

The roles and responsibilities for District Councils with regard to the management of ELVs are:

- Waste management arrangements for abandoned vehicles
- Take account of producer networks for ELV collection and treatment.

5.5.4 Batteries

There have not been any surveys directly estimating waste battery arisings within Northern Ireland. However, in the UK in 2001, it is known that approximately 680 million batteries were bought, most of which (89%) were general purpose batteries. UK data estimates that the annual rate of consumer battery arisings is 0.3Kg per person, which would translate into a Northern Ireland figure of 550 tonnes per year.

For SWaMP therefore, based on an approximate population of 449,179 this would equate to approximately 135 tonnes of batteries per year.

In terms of future management, there is a need for all stakeholders to work together to assess the implications of the forthcoming Batteries Directive. As a result of this, the key infrastructural requirements include systems for the source segregated collection of batteries from households, schools and commercial premises as well as facilities for the bulking, sorting, storage, treatment and reprocessing of battery waste arisings.

5.5.5 Sewage Sludge

It is estimated that Northern Ireland currently produces around 35,000 tonnes of sewage sludge per year. Of this tonnage, approximately 20,000 tonnes is treated by the existing incinerator in Belfast.

Responsibility for the management and control of sewage sludge falls with Department for Regional Development (DRD) Water Service. Water Service has overall responsibility for the operation and maintenance of Northern Ireland's sewage systems and wastewater treatment works, including the management of sewage sludge produced.

5.5.6 Clinical Wastes

The two main sources of clinical wastes are hospitals and community healthcare; including nursing homes, health centres, veterinary surgeries, dental surgeries, GP surgeries, blood transfusion centres, health laboratories and teaching and research establishments.

Hospital waste arisings are estimated at approximately 900 tonnes per annum for the SWaMP Region while community clinical waste is estimated to be between 450 and 900 tonnes per

annum. Therefore, clinical waste arisings for the SWaMP Region are estimated to be between 1,350 and 1,800 tonnes per annum.

Management options must provide for waste to be appropriately treated and disposed of in licensed facilities in accordance with legislative requirements.

There is currently one single treatment and incineration facility in Northern Ireland at Antrim Area Hospital. This facility processes around 78-80 tonnes of clinical waste (including sharps) per week. The facility also acts as a waste transfer facility for other pharmaceutical, anatomical and pathological wastes which are transferred to an incinerator in England.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The annual report for the SWaMP Region for 2005/06 has shown an encouraging increase in performance within the Region as a whole over the past twelve months. All eight of the Councils within the Region experienced a notable increase in household waste recovery rates with the result of this being that the SWaMP Household Recovery rate has risen from 23% in 2004/05 to 26% in 2005/06. There has been a similar rise in municipal waste performance between the two consecutive years with the recovery rate rising from 22% in 2004/05 to 25% in 2005/06. These increases in recovery have been due, in large, to the continued implementation of infrastructure and services, as outlined within the Implementation Action Plans. This implementation however needs to be maintained to ensure that SWaMP and the individual District Councils continue to strive towards the meeting of waste management targets.

It should also be noted that the SWaMP Group as a whole have also met the 2005/06 NILAS target, with every Council except Fermanagh landfilling biodegradable municipal waste within their NILAS District Council Allowance.

The Group as a whole have successfully met the 2005/06 household waste recovery target, as outlined in the Northern Ireland Waste Management Strategy, and this represents a significant achievement in the roll out of waste programmes and services by individual Councils. There is a requirement however to ensure that any planned services and facilities are implemented to ensure that each individual Council and the Group as a whole meet the stringent waste minimisation targets as set out in the SWaMP Waste Management Plan.

Only one Council in the Group, Armagh City and District Council, has recorded a decrease in waste arisings over the previous year, and there has been a slight increase in both household and municipal waste arisings within the Group as a whole with a 1% increase in both household waste arisings and municipal waste arisings. The reasons for these increases have been attributed, at least in part, to the increased number of housing developments being built within the Group, but also to errors in data recording during previous periods. The waste produced per household has however reduced by 0.02 tonnes per household over the past year. There is a need however for further waste minimisation initiatives to be introduced within the Region. There has been an Implementation Action Plan introduced for education and awareness initiatives and there is the need to monitor the effectiveness of this and ensure that it is providing a positive contribution to reducing the amount of waste produced across all sectors.

It is vitally important therefore that these Councils implement any missing infrastructure and services and strive towards reducing their overall waste arisings in order to maximise their recovery rates.

In terms of progression towards meeting the targets set out in the Landfill Directive for the diversion of biodegradable waste from landfill, the Region as a whole are anticipated to meet the Landfill Allowance targets up to 2008/09 but are anticipated to fall short of the 2009/10 target by approximately 26,000 tonnes, generating fines approximating to £3.9 m (based on projected fines of £150 per tonne). This is however on the assumption that there will be free transfer or movement of surplus allowances between the Region. Should this be prohibited, then it has been shown that there are a number of Councils are not anticipated to meet their targets.

In summary therefore, although there has been a marked increase in the recovery rates of both household and municipal waste, this increase has been curbed slightly by increases in both household and municipal waste arisings over the past year, within a number of Council areas. There is a need to ensure that education and awareness initiatives are fully implemented and as a result of this, positive actions taken towards minimising waste across all sectors.