ABERDEEN CITY COUNCIL

| | |
|---|---|
| COMMITTEE | Zero Waste Management Sub-Committee |
| DATE | 15 February 2012 |
| DIRECTOR | Pete Leonard |
| TITLE OF REPORT | Zero Waste Management Sub-Committee Study Tour Feedback |
| REPORT NUMBER: | ZWM/12/001 |

## 1. PURPOSE OF REPORT

To provide Members of the sub-committee with an overview of the key messages and lessons learned from the Study Tour to London and Hampshire held in December 2011.

## 2. RECOMMENDATION

That the sub-committee:-

i) Notes the contents of the report

## 3. FINANCIAL IMPLICATIONS

None from this report

## 4. OTHER IMPLICATIONS

None from this report

## 5. BACKGROUND/MAIN ISSUES

At the October meeting of the Zero Waste Management Sub-Committee it was decided that officers should make arrangements for a UK-based study visit to provide Elected Members with an understanding of the different types of waste collection and treatments in operation.

The study visit was held on the 15th and 16th of December 2011 and included visits to:

- London Borough of Barnet
- London Borough of Greenwich
- Alton, Hampshire
- Chineham, Hampshire

The sites and facilities were chosen to allow Members to see the widest range of recycling and waste treatment facilities as possible while limiting travel and costs.

**London Borough of Barnet**

Visit to May Gurney Depot, the base for the contracted-out recycling collection and management service for the London Borough of Barnet.

The system used is an 'extended' kerbside sort system using a specifically designed multi-compartment vehicle. The vehicle can be configured to have 7 or 8 compartments and capacity to store small streams such as batteries and (sight) glasses.

Householders have two boxes, similar in size to those used in Aberdeen, for recyclables and these are collected weekly.

The recycling services are in limited use in multi-occupancy areas where strings of wheeled bins are positioned on racks outside properties for each recyclable stream. This requires a different type of vehicle to empty the wheeled bins. May Gurney are trialling another multi-occupancy system in one authority but there is no feedback on its effectiveness yet.

The system requires only a basic and therefore low-cost transfer station/sorting facility to support it. Further sorting is required for some streams, such as mixed cans and plastics, alternatively, they can be sent elsewhere for sorting at lower value. Some streams such as cardboard, cans and plastics are required to be baled to ensure economic loads. Barnet Council are currently considering the future of their recycling collection and may revert to in-house provision and a change in collection system (commingled collections are being considered).

**London Boroughs of Greenwich and Southwark**

Visit to Veolia operated Materials Recycling Facility in Greenwich, discussion with Peter Dalley, Head of Environment for Greenwich Council and the Contract Manager for Veolia, Southwark.

Both areas adopt a 'commingled' recycling collection. This allows all recyclables (including glass) to be loaded into a single compartment vehicle, typically a standard Refuse Collection Vehicle. Householders are given a 240 litre wheeled bin for recyclable materials which, in Greenwich, is collected weekly.

Peter Dalley regards the simplicity of the system is essential to its success and popularity. There are significant efficiency benefits too for the collection operation because the same type of vehicle can be used

to collect all types of waste managed by the Council; this helps reduce significantly the number of spare vehicles held on fleet giving both capital and revenue savings.

The commingled approach makes provision of recycling to multi-occupancy properties easier; only one type of communal container is required for recycling meaning it is substantially easier to locate recycling facilities in the most convenient place for residents.

The costs of collection are much lower than for kerbside sort according to both Mr Dalley and Veolia representatives but this means that a substantial processing facility is required for the commingled recyclables. Typically, as at Greenwich, this is achieved by the authority contracting the design, build and operation of a complex Materials Recycling Facility (MRF). The capital investment in such a facility will be substantial (in excess of £6 million) and operating costs are higher than for a simple transfer/bulking arrangement. MRFs require strong maintenance regimes and periodic replacement of items such as conveyor belts and wearing parts.

The MRF takes commingled materials and sorts them mechanically and by manual picking into saleable streams. The recyclables are sorted by size initially and this separates bottles and cans from larger paper products. Glass is removed from the smaller fraction and then a further mechanical separation of containers and smaller paper is undertaken. The aluminium and steel cans are separated from the plastic bottles. The paper streams are manually picked to remove plastic film and other contaminants. Limited reconfiguration of the plant can be made over time to take account of changing input streams with the manual sorting system being particularly flexible in targeting priority streams, often related to the changing value of materials in the reprocessing market.

**Visit to MRF operated by Veolia at Alton, Hampshire**

This facility is part of an integrated treatment service for Hampshire called Project Intergra.

This MRF is newer and uses more sorting systems, including optical sorting, to produce higher quality products for sale into the reprocessing market. This system does not accept glass within the recycling mix which reduces wear on the machinery.

**Visit to Chineham Energy Recovery Facility, near Basingstoke, Hampshire**

This facility is also part of Project Interga and handles up to 90,000 tonnes per annum of residual (black bin) waste. The system is a modern, moving grate incinerator with energy recovery through

electricity generation. However, the remaining heat is not utilized, reducing the overall efficiency of the facility.

The facility has been carefully designed to facilitate visitor access and has an interesting architectural design. It is located within 1 km of a small town (Chineham) and is in an essentially green belt or rural setting. The operator identified that the planning approval process was challenging but, in his opinion, the establishment of good community liaison in early stages and adopting a positive design approach the process was managed successfully.

Emissions monitoring is undertaken continually and published on a monthly basis on the web. Emissions are well within limits set by European Regulation. The plant operates very efficiently with 93+% availability and few unplanned shutdowns.

The operator regards this technology as the best available method of gaining energy from waste; it is proven, reliable and bankable. There are few other technologies that Veolia consider capable of providing a viable solution. They have considered pyrolysis and plasma arc technologies but do not consider them either bankable or reliable. Gasification is closer to commercial acceptability but Veolia has not developed any facilities using this technology to date.

## 6. IMPACT

The study visit provided Elected Members an understanding of the different types of waste collection and treatments being used in the United Kingdom. This will support the Zero Waste Management project which will deliver the 5 year corporate business plan's waste management strategy option.

The study visit will assist the project in delivering the Council's Single Outcome Agreement to meet National Outcome 14 "we reduce the local and global environmental impact of our consumption and production".

## 7. BACKGROUND PAPERS

None

## 8. REPORT AUTHOR DETAILS

Laura Blair
Waste Strategy Officer
LauraBlair@aberdeencity.gov.uk
01224 489352

Peter Lawrence
Waste and Recycling Manager

PLawrence@aberdeencity.gov.uk
01224 489331